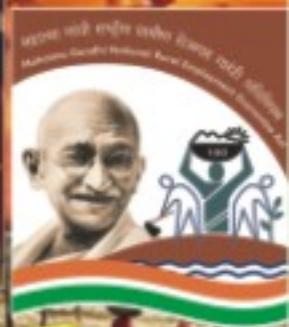


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1 Land and the People

"INDIA is the cradle of the human race, the birthplace of human speech, the mother of history, the grandmother of legend and the great grandmother of tradition. Our most valuable and most instructive materials in the history of man are treasured up in India only."—Mark Twain

India has a unique culture and is one of the oldest and greatest civilizations of the world. It stretches from the snow-capped Himalayas in the North to sun drenched coastal villages of the South, the humid tropical forests on the south-west coast, the fertile Brahmaputra valley on its East to the Thar desert in the West. It covers an area of 32,87,263 sq. km. It has achieved all-round socio-economic progress during the last 63 years of its Independence. India is the seventh largest country in the world and ranks second in population. The country stands apart from the rest of Asia, marked off as it is by mountains and the sea, which give her a distinct geographical entity. Bounded by the Great Himalayas in the north, it stretches southwards and at the Tropic of Cancer, tapers off into the Indian Ocean between the Bay of Bengal on the east and the Arabian Sea on the west.

Lying entirely in the northern hemisphere, the mainland extends between latitudes 8°4' and 37°6' north, longitudes 68°7' and 97°25' east and measures about 3,214 km from north to south between the extreme latitudes and about 2,933 km from east to west between the extreme longitudes. It has a land frontier of about 15,200 km. The total length of the coastline of the mainland, Lakshadweep Islands and Andaman & Nicobar Islands is 7,516.6 km.

PHYSICAL BACKGROUND

Countries having a common border with India are Afghanistan and Pakistan to the north-west, China, Bhutan and Nepal to the north, Myanmar to the far east and Bangladesh to the east of West Bengal. Sri Lanka is separated from India by a narrow channel of sea formed by the Palk Strait and the Gulf of Mannar. The country can be divided into six zones mainly North, South, East, West, Central and North-east zone. It has 28 states and seven union territories.

PHYSICAL FEATURES

The mainland comprises four regions, namely, the great mountain zone, plains of the Ganga and the Indus, the desert region and the southern peninsula.

The Himalayas comprise three almost parallel ranges interspersed with large plateaus and valleys, some of which, like the Kashmir and Kullu valleys, are fertile, extensive and of great scenic beauty. Some of the highest peaks in the world are found in these ranges. The high altitudes admit travel only to a few passes, notably the Jelep La and Nathu La on the main Indo-Tibet trade route through the Chumbi Valley, north-east of Darjeeling and Shipki La in the Satluj valley, north-east of Kalpa (Kinnaur). The mountain wall extends over a distance of about 2,400 km with a varying depth of 240 to 320 km. In the east, between India and Myanmar and India and Bangladesh, hill ranges are much lower. Garo, Khasi, Jaintia and Naga Hills,

¹ Provisional as on 31 March 1982

running almost east-west, join the chain to Mizo and Rkhine Hills running north-south.

The plains of the Ganga and the Indus, about 2,400 km long and 240 to 320 km broad, are formed by basins of three distinct river systems - the Indus, the Ganga and the Brahmaputra. They are one of the world's greatest stretches of flat alluvium and also one of the most densely populated areas on the earth. Between the Yamuna at Delhi and the Bay of Bengal, nearly 1,600 km away, there is a drop of only 200 metres in elevation.

The desert region can be divided into two parts - the great desert and the little desert. The great desert extends from the edge of the Rann of Kuchch beyond the Luni river northward. The whole of the Rajasthan-Sind frontier runs through this. The little desert extends from the Luni between Jaisalmer and Jodhpur up to the northern wastes. Between the great and the little deserts lies a zone of absolutely sterile country, consisting of rocky land, cut up by limestone ridges.

The Peninsular Plateau is marked off from the plains of the Ganga and the Indus by a mass of mountain and hill ranges varying from 460 to 1,220 metres in height. Prominent among these are the Aravalli, Vindhya, Satpura, Maikala and Ajanta. The Peninsula is flanked on the one side by the Eastern Ghats where average elevation is about 610 metres and on the other by the Western Ghats where it is generally from 915 to 1,220 metres, rising in places to over 2,440 metres. Between the Western Ghats and the Arabian Sea lies a narrow coastal strip, while between Eastern Ghats and the Bay of Bengal, there is a broader coastal area. The southern point of plateau is formed by the Nilgiri Hills where the Eastern and the Western Ghats meet. The Cardamom Hills lying beyond may be regarded as a continuation of the Western Ghats.

GEOLOGICAL STRUCTURE

The geological regions broadly follow the physical features and may be grouped into three regions: the Himalayas and their associated group of mountains, the Indo-Ganga Plain and the Peninsular Shield.

The Himalayan mountain belt to the north and the Naga-Lushai mountain in the east, are the regions of mountain-building movement. Most of this area, now presenting some of the most magnificent mountain scenery in the world, was under marine conditions about 60 crore years ago. In a series of mountain-building movements commencing about seven crore years ago, the sediments and the basement rocks rose to great heights. The weathering and erosive agencies worked on these to produce the relief seen today. The Indo-Ganga plains are a great alluvial tract that separate the Himalayas in the north from the Peninsula in the south.

The Peninsula is a region of relative stability and occasional seismic disturbances. Highly metamorphosed rocks of the earliest periods, dating back as far as 380 crore years, occur in the area; the rest being covered by the coastal-bearing Gondwana formations, lava flows belonging to the Deccan Trap formation and younger sediments.

RIVER SYSTEMS

The river systems of India can be classified into four groups viz., (i) Himalayan rivers, (ii) Deccan rivers, (iii) Coastal rivers, and (iv) Rivers of the inland drainage basin. The Himalayan rivers are formed by melting snow and glaciers and therefore, continuously flow throughout the year. During the monsoon months, Himalayas

receive very heavy rainfall and rivers swell, causing frequent floods. The Deccan rivers on the other hand are rainfed and therefore fluctuate in volume. Many of these are non-perennial. The Coastal streams, especially on the west coast are short in length and have limited catchment areas. Most of them are non-perennial. The streams of inland drainage basin of western Rajasthan are few and far apart. Most of them are of an ephemeral character.

The main Himalayan river systems are those of the Indus and the Ganga-Brahmaputra-Meghna system. The Indus, which is one of the great rivers of the world, rises near Mansarovar in Tibet and flows through India and thereafter through Pakistan and finally falls into the Arabian sea near Karachi. Its important tributaries flowing in Indian territory are the Sutlej (originating in Tibet), the Beas, the Ravi, the Chenab and the Jhelum. The Ganga-Brahmaputra-Meghna is another important system of which the principal sub-basins are those of Bhagirathi and the Alaknanda, which join at Dev Prayag to form the Ganga. It traverses through Uttarakhand, Uttar Pradesh, Bihar and West Bengal states. Below Rajmahal hills, the Bhagirathi, which used to be the main course in the past, takes off, while the Padma continues eastward and enters Bangladesh. The Yamuna, the Ramganga, the Ghaghra, the Gandak, the Kosi, the Mahananda and the Sone are the important tributaries of the Ganga. Rivers Chambal and Betwa are the important sub-tributaries, which join Yamuna before it meets the Ganga. The Padma and the Brahmaputra join at Bangladesh and continue to flow as the Padma or Ganga. The Brahmaputra rises in Tibet, where it is known as Tsangpo and runs a long distance till it crosses over into India in Arunachal Pradesh under the name of Dihang. Near Passighat, the Debang and Lohit join the river Brahmaputra and the combined river runs all along the Assam in a narrow valley. It crosses into Bangladesh downstream of Dhubri.

The principal tributaries of Brahmaputra in India are the Subansiri, Jia Bhareli, Dhansiri, Puthimari, Pagladiya and the Manas. The Brahmaputra in Bangladesh fed by Tista, etc., finally falls into Ganga. The Barak river, the head stream of Meghna, rises in the hills in Manipur. The important tributaries of the river are Makku, Trang, Tuivai, Jiri, Sonai, Rukni, Katakhal, Dhaleswari, Langachini, Maduva and Jatinga. Barak continues in Bangladesh till the combined Ganga—Brahmaputra join it near Bhairab Bazar.

In the Deccan region, most of the major river systems flowing generally in east direction fall into Bay of Bengal. The major east flowing rivers are Godavari, Krishna, Cauvery, Mahanadi, etc. Narmada and Tapti are major West flowing rivers.

The Godavari in the southern Peninsula has the second largest river basin covering 10 per cent of the area of India. Next to it is the Krishna basin in the region, while the Mahanadi has the third largest basin. The basin of the Narmada in the uplands of the Deccan, flowing to the Arabian Sea and of the Kaveri in the south, falling into the Bay of Bengal are about the same size, though with different character and shape.

There are numerous coastal rivers, which are comparatively small. While only handful of such rivers drain into the sea near the delta of east coast, there are as many as 600 such rivers on the west coast.

A few rivers in Rajasthan do not drain into the sea. They drain into salt lakes and get lost in sand with no outlet to sea. Besides these, there are the desert rivers which flow for some distance and are lost in the desert. These are Luni, Machhu, Rupen, Saraswati, Banas, Ghaggar and others.

CLIMATE

The climate of India may be broadly described as tropical monsoon type. There are four seasons: (i) winter (January-February), (ii) hot weather summer (March-May); (iii) rainy south-western monsoon (June-September) and (iv) post-monsoon, also known as north-east monsoon in the southern Peninsula (October-December). India's climate is affected by two seasonal winds - the north-east monsoon and the south-west monsoon. The north-east monsoon commonly known as winter monsoon blows from land to sea whereas south-west monsoon known as summer monsoon blows from sea to land after crossing the Indian Ocean, the Arabian Sea and the Bay of Bengal. The south-west monsoon brings most of the rainfall during the year in the country.

FLORA

India is rich in flora. Available data place India in the tenth position in the world and fourth in Asia in plant diversity. From about 70 per cent geographical area surveyed so far, over 46,000 species of plants have been described by the Botanical Survey of India (BSI), Kolkata. The vascular flora, which forms the conspicuous vegetation cover, comprises 15,000 species.

With a wide range of climatic conditions from the torrid to the arctic, India has a rich and varied vegetation, which only a few countries of comparable size possess. India can be divided into eight distinct floristic regions, namely, the western Himalayas, the eastern Himalayas, Assam, the Indus plain, the Ganga plain, the Deccan, Malabar and the Andamans.

The Western Himalayan region extends from Kashmir to Kumaon. Its temperate zone is rich in forests of *chir*, pine, other conifers and broad-leaved temperate trees. Higher up, forests of *deodar*, blue pine, spruce and silver fir occur. The alpine zone extends from the upper limit of the temperate zone of about 4,750 metres or even higher. The characteristic trees of this zone are high-level silver fir, silver birch and junipers. The eastern Himalayan region extends from Sikkim eastwards and embraces Darjeeling, Kurseong and the adjacent tract. The temperate zone has forests of oaks, laurels, maples, rhododendrons, alder and birch. Many conifers, junipers and dwarf willows also grow here. The Assam region comprises the Brahmaputra and the Surma valleys with evergreen forests, occasional thick clumps of bamboos and tall grasses. The Indus plain region comprises the plains of Punjab, western Rajasthan and northern Gujarat. It is dry, hot and supports natural vegetation. The Ganga plain region covers the area which is alluvial plain and is under cultivation for wheat, sugarcane and rice. Only small areas support forests of widely differing types. The Deccan region comprises the entire table land of the Indian Peninsula and supports vegetation of various kinds from scrub jungles to mixed deciduous forests. The Malabar region covers the excessively humid belt of mountain country parallel to the west coast of the Peninsula. Besides being rich in forest vegetation, this region produces important commercial crops, such as coconut, betelnut, pepper, coffee, tea, rubber and cashewnut. The Andaman region abounds in evergreen, mangrove, beach and diluvial forests. The Himalayan region extending from Kashmir to Arunachal Pradesh through Sikkim, Meghalaya and Nagaland and the Deccan Peninsula is rich in endemic flora, with a large number of plants which are not found elsewhere.

The flora of the country is being studied by BSI and its nine circle/field offices located throughout the country along with certain universities and research institutions.

Ethno-botanical study deals with the utilisation of plants and plant products by ethnic races. A scientific study of such plants has been made by BSI. A number of detailed ethno-botanical explorations have been conducted in different tribal areas of the country. More than 800 plant species of ethno-botanical interest have been collected and identified at different centres.

Owing to destruction of forests for agricultural, industrial and urban development, several Indian plants are facing extinction. About 1,336 plant species are considered vulnerable and endangered. About 20 species of higher plants are categorised as possibly extinct as these have not been sighted during the last 6-10 decades. BSI brings out an inventory of endangered plants in the form of a publication titled *Red Data Book*.

FAUNA¹

The Zoological Survey of India (ZSI), with its headquarters in Kolkata and 16 regional stations is responsible for surveying the faunal resources of India. Possessing a tremendous diversity of climate and physical conditions, India has great variety of fauna numbering over 90,000 species. Of these, protista number 2,577, mollusca 5,072, anthropoda 69,903, amphibia 240, mammalia 397, reptilia 460, members of protochordata 119, pisces 2,546, aves 1,232 and other invertebrates 8,329.

The mammals include the majestic elephant, the *gaur* or Indian bison—the largest of existing bovines, the great Indian rhinoceros, the gigantic wild sheep of the Himalayas, the swamp deer, the thamin spotted deer, *nilgai*, the four-horned antelope, the Indian antelope or black-buck – the only representatives of these genera. Among the cats, the tiger and lion are the most magnificent of all; other splendid creatures such as the clouded leopard, the snow leopard, the marbled cat, etc., are also found. Many other species of mammals are remarkable for their beauty, colouring, grace and uniqueness. Several birds, like pheasants, geese, ducks, *myanahs*, parakeets, pigeons, cranes, hornbills and sunbirds inhabit forests and wetlands.

Amongst the crocodiles and *gharials*, the salt water crocodile is found along the eastern coast and in the Andaman and Nicobar Islands. A project for breeding crocodiles which started in 1974, has been instrumental in saving the crocodile from extinction.

The great Himalayan range has a very interesting variety of fauna that includes the wild sheep and goats, markhor, ibex, shrew and tapir. The panda and the snow leopard are found in the upper reaches of the mountains.

Depletion of forest cover due to expansion of agriculture, habitat destruction, over-exploitation, pollution, introduction of toxic imbalance in community structure, epidemics, floods, droughts and cyclones, contribute to the loss of flora and fauna.

DEMOGRAPHIC BACKGROUND

CENSUS

The Census of India 2001, is historic and epoch making, being the first census of the twenty-first century and the third millennium. It reveals benchmark data on the state of abundant human resources available in the country, their demography, culture

¹ As per information available upto January 2007 on the ZSI Website.

and economic structure at a juncture, which marks a centennial and millennial transition.

The population enumeration of 2001 census was undertaken from 9 to 28 February 2001 with a revisional round from 1 to 5 March 2001. The census moment, the referral time at which the snapshot of the population is taken was 00.00 hours of 1 March 2001. Until the 1991 Census, the sunrise of 1 March was taken to be the census moment. The houseless population, as has been the usual practice, was enumerated on the night of 28 February 2001.

POPULATION

India's population as on 1 March 2001 stood at 1,028 million (532.1 million males and 496.4 million females). India accounts for a meagre 2.4 per cent of the world surface area of 135.79 million sq km. Yet, it supports and sustains a whopping 16.7 per cent of the world population.

The population of India, which at the turn of the twentieth century was around 238.4 million, increased to reach 1,028 million at the dawn of the twenty-first century. The population of India as recorded at each decennial census from 1901 has grown steadily except for a decrease during 1911-21. Decadal growth of population from 1901 is shown in table 1.1.

Table 1.2 gives the selected indicators of population growth in different States and Union Territories. The per cent decadal growth of population in the inter-censal period 1991-2001 varies from a low of 9.43 in Kerala to a very high 64.53 in Nagaland. Delhi with 47.02 per cent, Chandigarh with 40.28 per cent and Sikkim with 33.06 per cent registering very high growth rates. In addition to Kerala, Tamilnadu and Andhra Pradesh registered low growth rates during 1991-2001.

POPULATION DENSITY

One of the important indices of population concentration is the density of population. It is defined as the number of persons per sq km. The population density of India in 2001 was 324 per sq km.

The density of population increased in all States and Union Territories between 1991 and 2001. Among major states, West Bengal is still the most thickly populated state with a population density of 903 in 2001. Bihar is now the second highest densely populated state pushing Kerala to the third place. Ranking of the States and Union Territories by density is shown in table 1.3.

SEX RATIO

Sex ratio, defined as the number of females per thousand males is an important social indicator to measure the extent of prevailing equality between males and females in a society at a given point of time. The sex ratio in the country had always remained unfavourable to females. It was 972 at the beginning of the 20th century and thereafter showed continuous decline until 1941. The sex ratio from 1901-2001 is given in table 1.4.

LITERACY

For the purpose of census 2001, a person aged seven and above, who can both read and write with understanding in any language, is treated as literate. A person, who can only read but cannot write, is not literate. In the censuses prior to 1991, children below five years of age were necessarily treated as illiterates.

TABLE 1.1 : POPULATION 1901-2001

Census years	Population		Decadal Growth		Change in decadal growth		Average annual exponential growth rate (per cent)	Progressive growth rate over 1901 (per cent)
	2	3	Absolute	Per cent	Absolute	Per cent		
1				4	5	6	7	8
1901	23,83,96,327	-	-	-	-	-	-	-
1911	25,20,93,390	1,36,97,063	5.75	5.75	-	-	0.56	5.75
1921	25,13,21,213	-7,72,177	-0.31	-0.31	-1,44,69,240	-6.05	-0.03	5.42
1931	27,89,77,238	2,76,56,025	11.00	11.00	2,84,28,202	11.31	1.04	17.02
1941	31,86,60,580	3,96,83,342	14.22	14.22	1,20,27,317	3.22	1.33	33.67
1951 ¹	36,10,88,090	4,24,27,510	13.31	13.31	27,44,168	-0.91	1.25	51.47
1961 ¹	43,92,34,771	7,81,46,681	21.64	21.64	3,57,19,171	8.33	1.96	84.25
1971	54,81,59,652	10,89,24,881	24.80	24.80	3,07,78,200	3.16	2.22	129.94
1981 ²	68,33,29,097	13,51,69,445	24.66	24.66	2,62,44,564	-0.14	2.20	186.64
1991 ³	84,64,21,039	16,30,91,942	23.87	23.87	2,79,22,497	-0.79	2.14	255.05
2001 ⁴	1,02,87,37,436	18,23,16,397	21.54	21.54	1,92,24,455	-2.33	1.95	331.47

Notes :

1. In working out 'Decadal Growth' and 'Percentage Decadal Growth' for India 1941-51 and 1951-61 the population of Tuensang district for 1951 (7,025) and the population of Tuensang (83,501) and Mon (5,774) districts for 1961 Census of Nagaland state have not been taken into account as the areas went in for census for the first time in 1951 and the same are not comparable.
2. The 1981 Census could not be held owing to disturbances in Assam. Hence the population figures for 1981 of Assam have been worked out by 'interpolation'.
3. The 1991 Census could not be held owing to disturbances in Jammu and Kashmir. Hence the population figures for 1991 of Jammu and Kashmir have been worked out by 'interpolation'.
4. The population figures of 2001 includes estimated figures for those of the three sub-divisions, viz., Mao Maram, Paomata and Pural of Senapati district of Manipur as census result of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.

TABLE 1.2 : TOTAL POPULATION AND POPULATION GROWTH DURING 1991-2001,
INDIA/STATE/UNION TERRITORY

Sl. No.	India State/Union territory	Total Population					2001			1991-2001	
		1991		2001		Person	Males		Females		Population growth
		Person	Males	Females	Person		Males	Females			
1	2	3	4	5	6	7	8	9			
	India**	846,421,039	439,358,440	407,062,599	1,028,737,436	532,223,090	496,514,346	21.54			
1.	Jammu and Kashmir*	7,837,051	4,142,082	3,694,969	10,143,700	5,360,926	4,782,774	29.43			
2.	Himachal Pradesh	5,170,877	2,617,467	2,553,410	6,077,900	3,087,940	2,989,960	17.54			
3.	Punjab	20,281,969	10,778,034	9,503,935	24,358,999	12,985,045	11,373,954	20.10			
4.	Chandigarh	642,015	358,614	283,401	900,635	506,938	393,697	40.28			
5.	Uttarakhand	7,050,634	3,640,895	3,409,739	8,489,349	4,325,924	4,163,425	20.41			
6.	Haryana	16,463,648	8,827,474	7,636,174	21,144,564	11,363,953	9,780,611	28.43			
7.	Delhi	9,420,644	5,155,512	4,265,132	13,850,507	7,607,234	6,243,273	47.02			
8.	Rajasthan	44,005,990	23,042,780	20,963,210	56,507,188	29,420,011	27,087,177	28.41			
9.	Uttar Pradesh	132,061,653	70,396,062	61,665,591	166,197,921	87,565,369	78,632,552	25.85			
10.	Bihar	64,530,554	33,838,238	30,692,316	82,998,509	43,243,795	39,754,714	28.62			
11.	Sikkim	406,457	216,427	190,030	540,851	288,484	252,367	33.06			
12.	Arunachal Pradesh	864,558	465,004	399,554	1,097,968	579,941	518,027	27.00			
13.	Nagaland	1,209,546	641,282	568,264	1,990,036	1,047,141	942,895	64.53			
14.	Manipur**	1,837,149	938,359	898,790	2,293,896	1,161,952	1,131,944	24.86			
15.	Mizoram	689,756	358,978	330,778	888,573	459,109	429,464	28.82			
16.	Tripura	2,757,205	1,417,930	1,339,275	3,199,203	1,642,225	1,556,978	16.03			
17.	Meghalaya	1,774,778	907,687	867,091	2,318,822	1,176,087	1,142,735	30.65			
18.	Assam	22,414,322	11,657,989	10,756,333	26,655,528	13,777,037	12,878,491	18.92			
19.	West Bengal	68,077,965	35,510,633	32,567,332	80,176,197	41,465,985	38,710,212	17.77			

1	2	3	4	5	6	7	8	9
20.	Jharkhand	21,843,911	11,363,853	10,480,058	26,945,829	13,885,037	13,060,792	23.36
21.	Orissa	31,659,736	16,064,146	15,595,590	36,804,660	18,660,570	18,144,090	16.25
22.	Chhattisgarh	17,614,928	8,872,620	8,742,308	20,833,803	10,474,218	10,369,585	18.27
23.	Madhya Pradesh	48,566,242	25,394,673	23,171,569	60,348,023	31,443,652	28,904,371	24.26
24.	Gujarat	41,309,582	21,355,209	19,954,373	50,671,017	26,385,577	24,285,440	22.66
25.	Daman and Diu	101,586	51,595	49,991	158,204	92,512	65,692	55.73
26.	Dadra and Nagar Haveli	138,477	70,953	67,524	220,490	121,666	98,824	59.22
27.	Maharashtra	78,937,187	40,825,618	38,111,569	96,878,627	50,400,596	46,478,031	22.73
28.	Andhra Pradesh	66,508,008	33,724,581	32,783,427	76,210,007	38,527,413	37,682,594	14.59
29.	Karnataka	44,977,201	22,951,917	22,025,284	52,850,562	26,898,918	25,951,644	17.51
30.	Goa	1,169,793	594,790	575,003	1,347,668	687,248	660,420	15.21
31.	Lakshadweep	51,707	26,618	25,089	60,650	31,131	29,519	17.30
32.	Kerala	29,098,518	14,288,995	14,809,523	31,841,374	15,468,614	16,372,760	9.43
33.	Tamilnadu	55,858,946	28,298,975	27,559,971	62,405,679	31,400,909	31,004,770	11.72
34.	Puduchery	807,785	408,081	399,704	974,345	486,961	487,384	20.62
35.	Andaman and Nicobar Islands	280,661	154,369	126,292	356,152	192,972	163,180	26.90

Note : * The 1991 census figures of Jammu & Kashmir are interpolated as no census was conducted there due to disturbances.

** India and Manipur figures include estimated figures for those of the three sub-divisions viz., Mao Maram, Paomata and Puru of Senapati district of Manipur as census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.

Source : Office of the Registrar General, India

The results of 2001 census reveal that there has been an increase in literacy in the country. The literacy rate in the country is 64.84 per cent, 75.26 for males and 53.67 for females. The steady improvement in literacy is apparent from the table 1.5.

Kerala retained its position by being on top with a 90.86 per cent literacy rate, closely followed by Mizoram (88.80 per cent) and Lakshadweep (86.66 per cent). Bihar with a literacy rate of 47.00 per cent ranks last in the country preceded by Jharkhand (53.56 per cent) and Jammu and Kashmir (55.52 per cent). Kerala also occupies the top spot in the country both in male literacy with 94.24 per cent and female literacy with 87.72 per cent. On the contrary, Bihar has recorded the lowest literacy rates both in case of males (59.68 per cent) and females (33.12 per cent). Table 1.6 shows the literacy rate among persons, male and female in States and UTs, and their ranking.

TABLE 1.3 : STATES AND UNION TERRITORIES BY DENSITY

Rank in 2001	State / Union territories	Density		Rank in 1991
		2001	1991	
1	2	3	4	5
1.	Delhi	9,340	6,352	1
2.	Chandigarh	7,900	5,632	2
3.	Puducherry	2,034	1,683	5
4.	Lakshadweep	1,895	1,616	3
5.	Daman and Diu	1,413	907	4
6.	West Bengal	903	767	6
7.	Bihar	881	685	7
8.	Kerala	819	749	9
9.	Uttar Pradesh	690	548	8
10.	Punjab	484	403	10
11.	Tamilnadu	480	429	11
12.	Haryana	478	372	12
13.	Dadra and Nagar Haveli	449	282	14
14.	Goa	364	316	13
15.	Assam	340	286	15
16.	Jharkhand	338	274	17
17.	Maharashtra	315	257	16
18.	Tripura	305	263	18
19.	Andhra Pradesh	277	242	19
20.	Karnataka	276	235	20
21.	Gujarat	258	211	21
22.	Orissa	236	203	22
23.	Madhya Pradesh	196	158	23
24.	Rajasthan	165	129	24
25.	Uttarakhand	159	133	25
26.	Chhattisgarh	154	130	26
27.	Nagaland	120	73	27
28.	Himachal Pradesh	109	93	28
29.	Manipur*	111	82	30
30.	Meghalaya	103	79	29
31.	Jammu and Kashmir	100	77	31
32.	Sikkim	76	57	32
33.	Andaman and Nicobar Islands	43	34	33

34.	Mizoram	42	33	34
35.	Arunachal Pradesh	13	10	35

Notes :

- * Manipur figures include estimated figures for those of the three sub-divisions, viz., Mao Maram, Paomata and Purul of Senapati district of Manipur as census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.

TABLE 1.4 : SEX RATIO : 1901-2001

Census Year	Sex Ratio (females per 1,000 males)
1901	972
1911	964
1921	955
1931	950
1941	945
1951	946
1961	941
1971	930
1981	934
1991	926
2001	933

Notes :

1. For 1981, interpolated figures for Assam have been used.
2. For 1991, interpolated figures based on final population of 2001 census for Jammu and Kashmir have been used.
3. India figures for 2001 census exclude those of the three sub-divisions, viz., Mao Maram, Paomata and Purul of Senapati district of Manipur as population Census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.

TABLE 1.5 : LITERACY RATE : 1951-2001

Census Year	Persons	Males	Females
1951	18.33	27.16	8.86
1961	28.3	40.40	15.35
1971	34.45	45.96	21.97
1981	43.57	56.38	29.76
1991	52.21	64.13	39.29
2001	64.84	75.26	53.67

Notes :

1. Literacy rates for 1951, 1961 and 1971 Censuses relates to population aged five years and above. The rates for the 1981, 1991 and 2001 Censuses relate to the population aged seven years and above.
2. The 1981 Literacy rates exclude Assam where the 1981 Census could not be conducted.
3. The 1991 Literacy rates exclude Jammu and Kashmir where the 1991 Census could not be conducted due to disturbed conditions.

TABLE 1.6 : RANKING OF STATES/UTs BY LITERACY RATE AMONG PERSONS, MALES AND FEMALES, 2001 CENSUS

Rank	Persons			Males			Females							
	State/ Union Territories	Literacy Rate	3	State/ Union Territories	Literacy Rate	4	State/ Union Territories	Literacy Rate	5	State/ Union Territories	Literacy Rate	6	Literacy Rate	7
1.	Kerala	90.86		Kerala	94.24		Kerala	87.72						
2.	Mizoram	88.80		Lakshadweep	92.53		Mizoram	86.75						
3.	Lakshadweep	86.66		Mizoram	90.72		Lakshadweep	80.47						
4.	Goa	82.01		Puducherry	88.62		Chandigarh	76.47						
5.	Chandigarh	81.94		Goa	88.42		Goa	75.37						
6.	Delhi	81.67		Delhi	87.33		Andaman & Nicobar Islands	75.24						
7.	Andaman and Nicobar Islands	81.30		Daman and Diu	86.76		Delhi	74.71						
8.	Puducherry	81.24		Andaman and Nicobar Islands	86.33		Puducherry	73.90						
9.	Daman and Diu	78.18		Chandigarh	86.14		Himachal Pradesh	67.42						
10.	Maharashtra	76.88		Maharashtra	85.97		Maharashtra	67.03						
11.	Himachal Pradesh	76.48		Himachal Pradesh	85.35		Daman and Diu	65.61						
12.	Tamilnadu	73.45		Uttarakhand	83.28		Tripura	64.91						
13.	Tripura	73.19		Tamilnadu	82.42		Tamilnadu	64.33						
14.	Uttarakhand	71.62		Tripura	81.02		Punjab	63.36						
15.	Manipur ¹	70.53		Manipur ¹	80.33		Nagaland	61.46						
16.	Punjab	69.65		Gujarat	79.66		Manipur ¹	60.53						
17.	Gujarat	69.14		Haryana	78.49		Sikkim	60.40						
18.	Sikkim	68.81		Chhattisgarh	77.38		Uttarakhand	59.63						
19.	West Bengal	68.64		West Bengal	77.02		West Bengal	59.61						
20.	Haryana	67.91		Karnataka	76.10		Meghalaya	59.61						

1	2	3	4	5	6	7
21.	Karnataka	66.64	Madhya Pradesh	76.06	Gujarat	57.80
22.	Nagaland	66.59	Sikkim	76.04	Karnataka	56.87
23.	Chhattisgarh	64.66	Rajasthan	75.70	Haryana	55.73
24.	Madhya Pradesh	63.74	Orissa	75.35	Assam	54.61
25.	Assam	63.25	Punjab	75.23	Chhattisgarh	51.85
26.	Orissa	63.08	Assam	71.28	Orissa	50.51
27.	Meghalaya	62.56	Dadra and Nagar Haveli	71.18	Andhra Pradesh	50.43
28.	Andhra Pradesh	60.47	Nagaland	71.16	Madhya Pradesh	50.29
29.	Rajasthan	60.41	Andhra Pradesh	70.32	Rajasthan	43.85
30.	Dadra and Nagar Haveli	57.63	Uttar Pradesh	68.82	Arunachal Pradesh	43.53
31.	Uttar Pradesh	56.27	Jharkhand	67.30	Jammu and Kashmir	43.00
32.	Jammu and Kashmir	55.52	Jammu and Kashmir	66.60	Uttar Pradesh	42.22
33.	Arunachal Pradesh	54.34	Meghalaya	65.43	Dadra and Nagar Haveli	40.23
34.	Jharkhand	53.56	Arunachal Pradesh	63.83	Jharkhand	38.87
35.	Bihar	47.00	Bihar	59.68	Bihar	33.12

Notes :

- 1 Manipur figures exclude those of the three sub-divisions, viz., Mao Maram, Paomata and Purul of Senapati district of Manipur as census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.
Literacy rates relate to the population aged seven years and above.

**TABLE 1.7 : TOTAL POPULATION AND PERCENTAGE OF
SCHEDULED CASTES AND SCHEDULED TRIBES : 2001 CENSUS**

Sl. No.	India/State/ Union Territory	Total Population ('000)	Scheduled Caste Population ('000)	Percentage of total population	Scheduled Tribe Population ('000)	Percentage of total population
1	2	3	4	5	6	7
	INDIA¹	1,028,610	166,636	16.20	84,326	8.20
1.	Jammu and Kashmir	10,144	770	7.59	1,106	10.90
2.	Himachal Pradesh	6,078	1,502	24.72	245	4.02
3.	Punjab	24,359	7,029	28.85	0	0.00
4.	Chandigarh	901	158	17.50	0	0.00
5.	Uttarakhand	8,489	1,517	17.87	256	3.02
6.	Haryana	21,145	4,091	19.35	0	0.00
7.	Delhi	13,851	2,343	16.92	0	0.00
8.	Rajasthan	56,507	9,694	17.16	7,098	12.56
9.	Uttar Pradesh	166,198	35,148	21.15	108	0.06
10.	Bihar	82,999	13,049	15.72	758	0.91
11.	Sikkim	541	27	5.02	111	20.60
12.	Arunachal Pradesh	1,098	6	0.56	705	64.22
13.	Nagaland	1,990	0	0.00	1,774	89.15
14.	Manipur ¹	2,167	60	2.77	741	34.20
15.	Mizoram	889	0	0.03	839	94.46
16.	Tripura	3,199	556	17.37	993	31.05
17.	Meghalaya	2,319	11	0.48	1,993	85.94
18.	Assam	26,656	1,826	6.85	3,309	12.41
19.	West Bengal	80,176	18,453	23.02	4,407	5.50
20.	Jharkhand	26,946	3,189	11.84	7,087	26.30
21.	Orissa	36,805	6,082	16.53	8,145	22.13
22.	Chhattisgarh	20,834	2,419	11.61	6,617	31.76
23.	Madhya Pradesh	60,348	9,155	15.17	12,233	20.27
24.	Gujarat	50,671	3,593	7.09	7,481	14.76
25.	Daman and Diu	158	5	3.06	14	8.85
26.	Dadra and Nagar Haveli	220	4	1.86	137	62.24
27.	Maharashtra	96,879	9,882	10.20	8,577	8.85
28.	Andhra Pradesh	76,210	12,339	16.19	5,024	6.59
29.	Karnataka	52,851	8,564	16.20	3,464	6.55
30.	Goa	1,348	24	1.77	1	0.04
31.	Lakshadweep	61	0	0.00	57	94.51
32.	Kerala	31,841	3,124	9.81	364	1.14
33.	Tamilnadu	62,406	11,858	19.00	651	1.04
34.	Puducherry	974	158	16.19	0	0.00
35.	Andaman & Nicobar Islands	356	0	0.00	29	8.27

Note :

1. India and Manipur figures exclude those of the three sub-divisions, viz., Mao Maram, Paomata and Purul of Senapati district of Manipur as census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.

TABLE 1.8 : RURAL AND URBAN POPULATION

Census Year	Population (Million)		Percentage of total population	
	Rural	Urban	Rural	Urban
1	2	3	4	5
1901	213	26	89.2	10.8
1911	226	26	89.7	10.3
1921	223	28	88.8	11.2
1931	246	33	88.0	12.0
1941	275	44	86.1	13.9
1951	299	62	82.7	17.3
1961	360	79	82.0	18.0
1971	439	109	80.1	19.9
1981	524	159	76.7	23.3
1991	629	218	74.3	25.7
2001	743	286	72.2	27.8

Note :

1. India and Manipur figures are final and include estimated figures for those of the three sub-divisions, viz., Mao Maram, Paomata and Purul of Senapati district of Manipur as census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.
2. The 1991 Census could not be held owing to disturbed conditions prevailing in Jammu and Kashmir. Hence the population figures for 1991 of Jammu and Kashmir have been worked out by 'interpolation' on the basis of 2001 final population.
3. The 1981 census could not be held in Assam. The figures for 1981 for Assam have been worked out by interpolation.

TABLE 1.9 : POPULATION BY CLASS OF TOWN, INDIA-2001 CENSUS

(in 000's)

Class of Town		2001
I	1,00,000 and above	178,224
II	50,000-99,999	34,452
III	20,000-49,999	42,119
IV	10,000-19,999	22,614
V	5,000-9,999	7,890
VI	Less than 5,000	821
All Classes		286,120
Urban population as percentage to total population		27.82

TABLE 1.10 : DISTRIBUTION OF VILLAGES ACCORDING TO POPULATION 2001 CENSUS AND TOTAL NUMBER OF INHABITED VILLAGES

Sl. No.	States/UTs	10000 and above	5,000 9,999	2,000- 4,999	1,000- 1,999	500-999	200-499	Less than 200	Total No. of inhabited villages.
1	2	3	4	5	6	7	8	9	10
1.	Jammu and Kashmir*	10	135	886	1,546	1,664	1,499	677	6,417
2.	Himachal Pradesh	1	8	174	660	2,094	5,645	8,913	17,495
3.	Punjab	26	273	1,987	3,405	3,378	2,130	1,079	12,278
4.	Chandigarh	2	6	7	2	2	1	3	23
5.	Uttarakhand	13	69	350	752	1,890	4,912	7,775	15,761
6.	Haryana	97	504	2,015	2,091	1,205	582	270	6,764
7.	Delhi	24	26	60	29	9	4	6	158
8.	Rajasthan	100	661	4,660	8,777	11,058	9,151	5,346	39,753
9.	Uttar Pradesh	296	2,266	16,573	27,218	25,614	16,879	9,096	97,942
10.	Bihar	630	2,306	8,571	10,113	8,498	5,662	3,235	39,015
11.	Sikkim	0	9	40	120	157	82	42	450
12.	Arunachal Pradesh	0	3	26	126	266	682	2,760	3,863
13.	Nagaland	5	50	171	253	372	323	104	1,278
14.	Manipur*	6	28	157	202	326	731	749	2,199
15.	Mizoram	1	1	31	76	198	258	142	707
16.	Tripura	28	106	370	188	99	55	12	858
17.	Meghalaya	0	4	60	185	690	2,090	2,753	5,782
18.	Assam	19	185	2,495	5,439	6,233	6,018	4,735	25,124
19.	West Bengal	354	1,526	6,819	8,490	8,930	7,553	4,273	37,945
20.	Jharkhand	28	174	1,642	4,173	7,442	9,234	6,661	29,354
21.	Orissa	5	180	2,404	6,814	11,428	14,054	12,644	47,529

1	2	3	4	5	6	7	8	9	10
22.	Chhattisgarh	6	80	1,264	4,185	6,465	5,498	2,246	19,744
23.	Madhya Pradesh	19	362	3,551	10,434	16,277	14,330	7,144	52,117
24.	Gujarat	153	807	4,154	5,615	4,262	2,297	778	18,066
25.	Daman and Diu	2	5	5	4	5	2	0	23
26.	Dadra and Nagar Haveli	0	7	28	15	12	7	1	70
27.	Maharashtra	262	1,018	5,862	11,570	12,074	7,367	2,942	41,095
28.	Andhra Pradesh	498	1,788	6,915	6,475	4,467	3,402	3,068	26,613
29.	Karnataka	131	703	4,024	6,378	7,367	5,563	3,315	27,481
30.	Goa	3	23	96	77	56	60	32	347
31.	Lakshadweep	1	2	3	0	0	1	1	8
32.	Kerala	1,072	207	69	10	0	4	2	1,364
33.	Tamilnadu	168	1,254	4,870	4,484	2,801	1,344	479	15,400
34.	Puducherry	2	20	45	18	7	0	0	92
35.	Andaman and Nicobar Islands	0	2	23	52	62	90	272	501
ALL INDIA		3,962	14,798	80,407	129,976	145,408	127,510	91,555	593,616

Note :

@ India and Jammu & Kashmir State excludes the villages of the areas under unlawful occupation of Pakistan and China where Census could not be taken.

* India and Manipur excludes villages for those of the three sub-divisions viz. Mao Maram, Paomata and Purul of Senapati district of Manipur as census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.

Source : Office of the Registrar General India.

TABLE 1.11 : POPULATION OF MILLION PLUS CITIES/TOWNS

Sl.No.	City/Town	Population						0-6 Population						Literates		
		Person		Male		Female		Person		Male		Female		Person	Male	Female
		3	4	5	6	7	8	9	10	11	9	10	11	10	11	
1.	Greater Mumbai (M Corp.)	11,978,450	6,619,966	5,358,484	1,364,423	709,777	654,646	9,207,877	5,388,552	3,819,325						
2.	DMC (U) (M Corp.)	9,879,172	5,412,497	4,466,675	1,352,656	724,171	628,485	7,075,280	4,110,213	2,965,067						
3.	Kolkata (M Corp.)	4,572,876	2,500,040	2,072,836	390,282	202,527	187,755	3,382,103	1,925,008	1,457,095						
4.	Chennai (M Corp.)	4,343,645	2,219,539	2,124,106	433,340	219,720	213,620	3,336,695	1,799,981	1,536,714						
5.	Bangaluru (M Corp.)	4,301,326	2,242,835	2,058,491	484,982	249,652	235,330	3,265,702	1,787,677	1,478,025						
6.	Hyderabad (M Corp.)	3,637,483	1,883,064	1,754,419	463,150	238,386	224,764	2,498,234	1,374,955	1,123,279						
7.	Ahmedabad (M Corp.)	3,520,085	1,867,249	1,652,836	441,022	240,797	200,225	2,552,731	1,447,380	1,105,351						
8.	Kanpur (M Corp.)	2,551,337	1,374,121	1,177,216	317,756	171,263	146,493	1,758,807	997,001	761,806						
9.	Pune (M Corp.)	2,538,473	1,321,338	1,217,135	302,960	158,672	144,288	1,930,063	1,064,508	865,555						
10.	Surat (M Corp.)	2,433,835	1,372,415	1,061,420	340,582	186,746	153,836	1,736,939	1,043,703	693,236						
11.	Lucknow (M Corp.)	2,185,927	1,156,151	1,029,776	273,401	143,232	130,169	1,474,733	827,793	646,940						
12.	Nagpur (M Corp.)	2,052,066	1,059,765	992,301	249,827	129,283	120,544	1,609,126	873,739	735,387						
13.	Jaipur (M Corp.)	2,322,575	1,237,765	1,084,810	352,661	187,351	165,310	1,537,850	908,969	628,881						
14.	Indore (M Corp.)	1,474,968	774,540	700,428	200,081	105,478	94,603	1,064,912	598,339	466,573						
15.	Bhopal (M Corp.)	1,437,354	757,408	679,946	208,587	108,172	100,415	979,770	555,051	424,719						
16.	Ludhiana (M Corp.)	1,398,467	793,142	605,325	169,273	93,050	76,223	981,383	573,886	407,497						

Sl.No.	City/Town	Population						0-6 Population						Literates	
		Person	Male	Female	Person	Male	Female	Person	Male	Female	Person	Male	Female	Male	Female
1	2	3	4	5	6	7	8	9	10	11					
17.	Patna (M Corp.)	1,366,444	746,344	620,100	182,037	96,034	86,003	961,681	564,625	397,056					
18.	Vadodara (M Corp.)	1,306,227	684,013	622,214	148,034	80,610	67,424	1,014,014	557,051	456,963					
19.	Agra (M Corp.)	1,275,134	690,599	584,535	179,411	96,850	82,561	766,860	452,770	314,090					
20.	Thane (M Corp.)	1,262,551	675,147	587,404	161,698	84,334	77,364	973,195	551,086	422,109					
21.	Kalyan-Dombivli (M Corp.)	1,193,512	633,508	560,004	144,097	75,256	68,841	944,745	525,907	418,838					
22.	Varanasi (M Corp.)	1,091,918	582,096	509,822	161,172	84,256	76,916	670,367	392,103	278,264					
23.	Nasik (M Corp.)	1,077,236	575,737	501,499	147,919	78,579	69,340	802,695	458,005	344,690					
24.	Meerut (M Corp.)	1,068,772	568,081	500,691	163,570	87,893	75,677	610,636	355,282	255,354					
25.	Faridabad (M Corp.)	1,055,938	581,069	474,869	158,603	85,805	72,798	714,578	430,274	284,304					
26.	Pimpri Chinchwad (M Corp.)	1,012,472	547,050	465,422	143,034	75,688	67,346	745,317	431,785	313,532					
27.	Howrah (M Corp.)	1,007,532	547,068	460,464	94,330	48,678	45,652	768,655	438,450	330,205					

TABLE 1.12 : STATES AND UNION TERRITORIES BY POPULATION IN DESCENDING ORDER AND RANK IN 1991 AND 2001 CENSUS

Rank in 2001	State/ Union territories	Population 2001	Per cent to total Population of India		Rank in 1991
			2001	1991	
1	2	3	4	5	6
1.	Uttar Pradesh	166,197,921	16.16	15.59	1
2.	Maharashtra	96,878,627	9.42	9.33	2
3.	Bihar	82,998,509	8.07	7.62	5
4.	West Bengal	80,176,197	7.79	8.04	3
5.	Andhra Pradesh	76,210,007	7.41	7.86	4
6.	Tamilnadu	62,405,679	6.07	6.60	6
7.	Madhya Pradesh	60,348,023	5.87	5.74	7
8.	Rajasthan	56,507,188	5.49	5.20	9
9.	Karnataka	52,850,562	5.14	5.31	8
10.	Gujarat	50,671,017	4.93	4.88	10
11.	Orissa	36,804,660	3.58	3.74	11
12.	Kerala	31,841,374	3.10	3.44	12
13.	Jharkhand	26,945,829	2.62	2.58	14
14.	Assam	26,655,528	2.59	2.65	13
15.	Punjab	24,358,999	2.37	2.40	15
16.	Haryana	21,144,564	2.06	1.95	17
17.	Chhattisgarh	20,833,803	2.03	2.08	16
18.	Delhi	13,850,507	1.35	1.11	18
19.	Jammu and Kashmir ²	10,143,700	0.99	0.93	19
20.	Uttarakhand	8,489,349	0.83	0.84	20
21.	Himachal Pradesh	6,077,900	0.59	0.61	21
22.	Tripura	3,199,203	0.31	0.33	22
23.	Meghalaya	2,318,822	0.23	0.21	24
24.	Manipur ¹	2,293,896	0.22	0.22	23
25.	Nagaland	1,990,036	0.19	0.14	25
26.	Goa	1,347,668	0.13	0.14	26
27.	Arunachal Pradesh	1,097,968	0.11	0.10	27
28.	Puducherry	974,345	0.09	0.10	28
29.	Chandigarh	900,635	0.09	0.08	29

30.	Mizoram	888,573	0.09	0.08	30
31.	Sikkim	540,851	0.05	0.05	31
32.	Andaman and Nicobar Islands	356,152	0.03	0.03	32
33.	Dadra and Nagar Haveli	220,490	0.02	0.02	33
34.	Daman and Diu	158,204	0.02	0.01	34
35.	Lakshadweep	60,650	0.01	0.01	35

Notes :

1. India and Manipur figures include estimated figures for those of the three sub-divisions viz., Mao Maram, Paomata and Purul of Senapati district of Manipur as census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons.
2. The 1991 Census could not be held owing to disturbed conditions prevailing in Jammu and Kashmir. Hence the population figures for 1991 of Jammu and Kashmir have been worked out by 'interpolation'.

2 National Symbols

NATIONAL FLAG

THE National flag is a horizontal tricolour of deep saffron (*kesaria*) at the top, white in the middle and dark green at the bottom in equal proportion. The ratio of width of the flag to its length is two to three. In the centre of the white band is a navy-blue wheel which represents the *chakra*. Its design is that of the wheel which appears on the abacus of the Sarnath Lion Capital of Ashoka. Its diameter approximates to the width of the white band and it has 24 spokes. The design of the National Flag was adopted by the Constituent Assembly of India on 22 July 1947.

Apart from non-statutory instructions issued by the Government from time to time, display of the National Flag is governed by the provisions of the Emblems and Names (Prevention of Improper Use) Act, 1950 (No. 12 of 1950) and the Prevention of Insults to National Honour Act, 1971 (No. 69 of 1971). The Flag Code of India, 2002 is an attempt to bring together all such laws, conventions, practices and instructions for the guidance and benefit of all concerned.

The Flag Code of India, 2002, has taken effect from 26 January 2002 and supercedes the 'Flag Code—as it existed. As per the provisions of the Flag Code of India, 2002, there shall be no restriction on the display of the National Flag by members of general public, private organisations, educational institutions, etc., except to the extent provided in the Emblems and Names (Prevention of Improper Use) Act, 1950 and the Prevention of Insults to National Honour Act, 1971 and any other law enacted on the subject.

STATE EMBLEM

The state emblem is an adaptation from the Sarnath Lion Capital of Ashoka. In the original, there are four lions, standing back to back, mounted on an abacus with a frieze carrying sculptures in high relief of an elephant, a galloping horse, a bull and a lion separated by intervening wheels over a bell-shaped lotus. Carved out of a single block of polished sandstone, the Capital is crowned by the Wheel of the Law (*Dharma Chakra*).

In the state emblem, adopted by the Government of India on 26 January 1950, only three lions are visible, the fourth being hidden from view. The wheel appears in relief in the centre of the abacus with a bull on right and a horse on left and the outlines of other wheels on extreme right and left. The bell-shaped lotus has been omitted. The words *Satyameva Jayate* from *Mundaka Upanishad*, meaning 'Truth Alone Triumphs', are inscribed below the abacus in *Devanagari* script.

The use of the state emblem of India, as the official seal of the Government of India, is regulated by the state of India (Prohibition of Improper Use) Act, 2005.

NATIONAL ANTHEM

The song *Jana-gana-mana*, composed originally in Bengali by Rabindranath Tagore, was adopted in its Hindi version by the Constituent Assembly as the National Anthem of India on 24 January 1950. It was first sung on 27 December 1911 at the Kolkata Session of the Indian National Congress. The complete song consists of five stanzas. The first stanza contains the full version of the National Anthem :

*Jana-gana-mana-adhinayaka, jaya he
 Bharata-bhagya-vidhata.
 Punjab-Sindh-Gujarat-Maratha
 Dravida-Utkala-Banga
 Vindhya-Himachala-Yamuna-Ganga
 Uchchala-Jaladhi-taranga.
 Tava shubha name jage,
 Tava shubha asisa mange,
 Gahe tava jaya gatha,
 Jana-gana-mangala-dayaka jaya he
 Bharata-bhagya-vidhata.
 Jaya he, jaya he, jaya he,
 Jaya jaya jaya, jaya he!*

Playing time of the full version of the national anthem is approximately 52 seconds. A short version consisting of the first and last lines of the stanza (playing time approximately 20 seconds) is also played on certain occasions. The following is Tagore's English rendering of the anthem :

Thou art the ruler of the minds of all people,
 Dispenser of India's destiny.

Thy name rouses the hearts of Punjab, Sind,
 Gujarat and Maratha,

Of the Dravida and Orissa and Bengal;

It echoes in the hills of the Vindhyas and Himalayas,
 mingles in the music of Jamuna and Ganges and is
 chanted by the waves of the Indian Sea.

They pray for thy blessings and sing thy praise.

The saving of all people waits in thy hand,
 Thou dispenser of India's destiny.

Victory, victory, victory to thee.

NATIONAL SONG

The song *Vande Mataram*, composed in sanskrit by Bankimchandra Chatterji, was a source of inspiration to the people in their struggle for freedom. It has an equal status with *Jana-gana-mana*. The first political occasion when it was sung was the 1896 session of the Indian National Congress. The following is the text of its first stanza :

Vande Mataram!

*Sujalam, suphalam, malayaja shitalam,
 Shasyashyamalam, Mataram!
 Shubhrajyotsna pulakitayaminim,
 Phullakusumita drumadala shobhinim,
 Suhasinim sumadhura bhashinim,
 Sukhadam varadam, Mataram!*

1 As published in Volume Eight of Sri Aurobindo Birth Centenary Library, Popular Edition 1972

The English translation of the stanza rendered by Sri Aurobindo in prose¹ is :

I bow to thee, Mother,
richly-watered, richly-fruited,
cool with the winds of the south,
dark with the crops of the harvests,
The Mother!
Her nights rejoicing in the glory of the moonlight,
her lands clothed beautifully with her trees in flowering bloom,
sweet of laughter, sweet of speech,
The Mother, giver of boons, giver of bliss.

NATIONAL CALENDAR

The national calendar based on the *Saka Era*, with *Chaitra* as its first month and a normal year of 365 days was adopted from 22 March 1957 along with the Gregorian calendar for the following official purposes: (i) Gazette of India, (ii) news broadcast by All India Radio, (iii) calendars issued by the Government of India and (iv) Government communications addressed to the members of the public.

Dates of the national calendar have a permanent correspondence with dates of the Gregorian calendar, 1 *Chaitra* falling on 22 March normally and on 21 March in leap year.

NATIONAL ANIMAL

The magnificent tiger, *Panthera tigris*, a striped animal is the national animal of India, it has a thick yellow coat of fur with dark stripes. The combination of grace, strength, ability and enormous power has earned the tiger its pride of place as the national animal of India. Out of eight races of the species known, the Indian race, the Royal Bengal Tiger, is found throughout the country except in the north-western region and also in the neighbouring countries, Nepal, Bhutan and Bangladesh.

NATIONAL BIRD

The Indian peacock, *Pavo cristatus*, the national bird of India, is a colourful, swan-sized bird, with a fan-shaped crest of feathers, a white patch under the eye and a long, slender neck. The male of the species is more colourful than the female, with a glistening blue breast and neck and a spectacular bronze-green trail of around 200 elongated feathers. The female is brownish, slightly smaller than the male and lacks the trail. The elaborate courtship dance of the male, fanning out the tail and preening its feathers is a gorgeous sight.

NATIONAL FLOWER

Lotus (*Nelumbo Nucifera Gaertn*) is the National Flower of India. It is a sacred flower and occupies a unique position in the art and mythology of ancient India and has been an auspicious symbol of Indian culture since time immemorial.

NATIONAL TREE

The Banyan Tree (*Ficus benghalensis*) is the National Tree of India. This huge tree towers over its neighbours and has the widest reaching roots of all known trees,

easily covering several acres. It sends off new shoots from its roots, so that one tree is really a tangle of branches, roots, and trunks.

NATIONAL FRUIT

Mango (*Manigifera indica*) is the National fruit of India. Mango is one of the most widely grown fruits of the tropical countries. In India, mango is cultivated almost in all parts, with the exception of hilly areas. Mango is a rich source of Vitamins A, C and D. In India, we have hundreds of varieties of mangoes. They are of different sizes, shapes and colours. Mangoes have been cultivated in India since time immemorial.

3 The Polity

INDIA, a Union of States, is a Sovereign Socialist Secular Democratic Republic with a parliamentary system of government. The Republic is governed in terms of the Constitution, which was adopted by Constituent Assembly on 26 November 1949 and came into force on 26 January 1950.

The Constitution which envisages parliamentary form of government is federal in structure with unitary features. The President of India is the constitutional head of executive of the Union. Article 74(1) of the Constitution provides that there shall be a Council of Ministers with the Prime Minister as its head to aid and advise the President who shall in exercise of his functions, act in accordance with such advice. The real executive power thus vests in the Council of Ministers with the Prime Minister as its head. The Council of Ministers is collectively responsible to the House of the People (Lok Sabha). Similarly, in states, the Governor is the head of executive, but it is the Council of Ministers with the Chief Minister as its head in whom real executive power vests. The Council of Ministers of a state is collectively responsible to the Legislative Assembly of the state.

The Constitution distributes legislative power between Parliament and state legislatures and provides for vesting of residual powers in Parliament. Power to amend the Constitution also vests in Parliament. The Constitution has provision for independence of Judiciary, Comptroller and Auditor-General, Public Service Commissions and Chief Election Commissioner.

THE UNION AND ITS TERRITORY

India comprises 28 States and seven Union Territories. They are: Andhra Pradesh, Assam, Arunachal Pradesh, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal. Union Territories are : Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, National Capital Territory of Delhi, Lakshadweep and Puducherry.

CITIZENSHIP

The Constitution of India provides for a single citizenship for the whole of India. Every person who was at the commencement of the Constitution (26 January 1950) domiciled in the territory of India and: (a) who was born in India; or (b) either of whose parents was born in India; or (c) who has been ordinarily resident in India for not less than five years became a citizen of India. The Citizenship Act, 1955, deals with matters relating to acquisition, determination and termination of Indian citizenship after the commencement of the Constitution.

FUNDAMENTAL RIGHTS

The Constitution offers all citizens, individually and collectively, some basic freedoms. These are guaranteed in the Constitution in the form of six broad categories of Fundamental Rights which are justiciable. Article 12 to 35 contained in Part III of the Constitution deal with Fundamental Rights. These are : (i) right to equality including equality before law, prohibition of discrimination on grounds of religion, race, caste,

sex or place of birth and equality of opportunity in matters of employment; (ii) right to freedom of speech and expression; assembly; association or union; movement; residence; and right to practice any profession or occupation (some of these rights are subject to security of the State, friendly relations with foreign countries, public order, decency or morality); (iii) right against exploitation, prohibiting all forms of forced labour, child labour and traffic in human beings; (iv) right to freedom of conscience and free profession, practice and propagation of religion; (v) right of any section of citizens to conserve their culture, language or script and right of minorities to establish and administer educational institutions of their choice; and (vi) right to constitutional remedies for enforcement of Fundamental Rights.

FUNDAMENTAL DUTIES

By the 42nd Amendment of the Constitution, adopted in 1976, Fundamental Duties of the citizens have also been enumerated. Article 51 'A' contained in Part IV A of the Constitution deals with Fundamental Duties. These enjoin upon a citizen among other things, to abide by the Constitution, to cherish and follow noble ideals, which inspired India's struggle for freedom, to defend the country and render national service when called upon to do so and to promote harmony and spirit of common brotherhood transcending religious, linguistic and regional or sectional diversities.

DIRECTIVE PRINCIPLES OF STATE POLICY

The Constitution lays down certain Directive Principles of State Policy, which though not justiciable, are 'fundamental in governance of the country' and it is the duty of the State to apply these principles in making laws. These lay down that the State shall strive to promote the welfare of people by securing and protecting as effectively as it may a social order in which justice—social, economic and political—shall form in all institutions of national life. The State shall direct its policy in such a manner as to secure the right of all men and women to an adequate means of livelihood, equal pay for equal work and within limits of its economic capacity and development, to make effective provision for securing the right to work, education and to public assistance in the event of unemployment, old age, sickness and disablement or other cases of undeserved want. The State shall also endeavour to secure to workers a living wage, humane conditions of work, a decent standard of life and full involvement of workers in management of industries.

In the economic sphere, the State is to direct its policy in such a manner as to secure distribution of ownership and control of material resources of community to subserve the common good and to ensure that operation of economic system does not result in concentration of wealth and means of production to common detriment.

Some of the other important directives relate to provision of opportunities and facilities for children to develop in a healthy manner, free and compulsory education for all children up to the age of 14; promotion of education and economic interests of scheduled castes, scheduled tribes and other weaker sections; organisation of village *panchayats*; separation of judiciary from executive, promulgation of a uniform civil code for whole country; protection of national monuments; promotion of justice on a basis of equal opportunity; provision of free legal aid; protection and improvement of environment and safeguarding of forests and wildlife of the country and promotion of international peace and security, just and honourable relations between nations, respect for international law, treaty obligations and settlement of international disputes by arbitration.

THE UNION

EXECUTIVE

The Union executive consists of the President, the Vice-President and the Council of Ministers with the Prime Minister as the head to aid and advise the President.

PRESIDENT

The President is elected by members of an electoral college consisting of elected members of both Houses of Parliament and Legislative Assemblies of the states in accordance with the system of proportional representation by means of single transferable vote. To secure uniformity among state *inter se* as well as parity between the states, as a whole, and the Union, suitable weightage is given to each vote. The President must be a citizen of India, not less than 35 years of age and qualified for election as member of the Lok Sabha. His term of office is five years and he is eligible for re-election. His removal from office is to be in accordance with procedure prescribed in Article 61 of the Constitution. He may, by writing under his hand addressed to the Vice-President, resign his office.

Executive power of the Union is vested in the President and is exercised by him either directly or through officers subordinate to him in accordance with the Constitution. Supreme command of defence forces of the Union also vests in him. The President summons, prorogues, addresses, sends messages to Parliament and dissolves the Lok Sabha; promulgates Ordinances at any time, except when both Houses of Parliament are in session; makes recommendations for introducing financial and money bills and gives assent to bills; grants pardons, reprieves, respites or remission of punishment or suspends, remits or commutes sentences in certain cases. When there is a failure of the constitutional machinery in a state, he can assume to himself all or any of the functions of the government of that state. The President can proclaim emergency in the country if he is satisfied that a grave emergency exists whereby security of India or any part of its territory is threatened whether by war or external aggression or armed rebellion.

VICE-PRESIDENT

The Vice-President is elected by members of an electoral college consisting of members of both Houses of Parliament in accordance with the system of proportional representation by means of single transferable vote. He must be a citizen of India, not less than 35 years of age and eligible for election as a member of the Rajya Sabha. His term of office is five years and he is eligible for re-election. His removal from office is to be in accordance with procedure prescribed in Article 67 b.

The Vice-President is *ex-officio* Chairman of the Rajya Sabha and acts as President when the latter is unable to discharge his functions due to absence, illness or any other cause or till the election of a new President (to be held within six months when a vacancy is caused by death, resignation or removal or otherwise of President). While so acting, he ceases to perform the function of the Chairman of the Rajya Sabha.

COUNCIL OF MINISTERS

There is a Council of Ministers, headed by the Prime Minister, to aid and advise the President in exercise of his functions. The Prime Minister is appointed by the President who also appoints other ministers on the advice of Prime Minister. The Council is collectively responsible to the Lok Sabha. It is the duty of the Prime Minister to

communicate to the President all decisions of Council of Ministers relating to administration of affairs of the Union and proposals for legislation and information relating to them.

The Council of Ministers comprises Ministers who are members of Cabinet, Ministers of State (independent charge), Ministers of State and Deputy Ministers.

LEGISLATURE

Legislature of the Union which is called Parliament, consists of President and two Houses, known as Council of States (Rajya Sabha) and House of the People (Lok Sabha). Each House has to meet within six months of its previous sitting. A joint sitting of two Houses can be held in certain cases.

RAJYA SABHA

The Constitution provides that the Rajya Sabha shall consist of 12 members to be nominated by the President from amongst persons having special knowledge or practical experience in respect of such matters as literature, science, art and social service; and not more than 238 representatives of the States and of the Union Territories.

Elections to the Rajya Sabha are indirect; members representing States are elected by elected members of legislative assemblies of the States in accordance with the system of proportional representation by means of the single transferable vote, and those representing Union Territories are chosen in such manner as Parliament may by law prescribe. The Rajya Sabha is not subject to dissolution; one-third of its members retire every second year.

Rajya Sabha, at present, has 244 seats. Of these, 233 members represent the States and the Union Territories and 11 members have been nominated by the President and one seat under nomination category is vacant. The names of members of Rajya Sabha and party affiliation are given in **Appendices**.

LOK SABHA

The Lok Sabha is composed of representatives of people chosen by direct election on the basis of adult suffrage. The maximum strength of the House envisaged by the Constitution is now 552 (530 members to represent the States, 20 members to represent the Union Territories and not more than two members of the Anglo-Indian community to be nominated by the President, if, in his opinion, that community is not adequately represented in the House). The total elective membership of the Lok Sabha is distributed among the States in such a way that the ratio between the number of seats allotted to each State and the population of the State is, as far as practicable, the same for all States. The Lok Sabha at present consists of 545 members. Of these, 530 members are directly elected from the States and 13 from Union Territories while two are nominated by the President to represent the Anglo-Indian community. This includes one vacant seat of Banka Constituency of Bihar and the seat of MP Smt. Meira Kumar who has become Speaker of Lok Sabha and two nominated members of Anglo-Indian community. It means after excluding the vacant seat and the seat of the speaker, there are at present 543 seats of the House. Following the Constitution 84th Amendment Act, 2001 the total number of existing seats as allocated to various States in the Lok Sabha on the basis of the 1971 census shall remain unaltered till the first census to be taken after the year 2026.

The term of the Lok Sabha, unless dissolved earlier is five years from the date appointed for its first meeting. However, while a Proclamation of Emergency is in operation, this period may be extended by Parliament by law for a period not exceeding one year at a time and not extending in any case, beyond a period of six months after the Proclamation has ceased to operate. Fifteen Lok Sabhas have been constituted so far. The term of each Lok Sabha and its Speaker(s) is given in table 3.1.

The names of members of the Fifteen Lok Sabha, their constituencies and party affiliations are given in Appendices.

QUALIFICATION FOR MEMBERSHIP OF PARLIAMENT

In order to be chosen a member of Parliament, a person must be a citizen of India and not less than 30 years of age in the case of Rajya Sabha and not less than 25 years of age in the case of Lok Sabha. Additional qualifications may be prescribed by Parliament by law.

FUNCTIONS AND POWERS OF PARLIAMENT

As in other parliamentary democracies, the Parliament in India has the cardinal functions of legislation, overseeing of administration, passing of the Budget, ventilation of public grievances and discussing various subjects like development plans, national policies and international relations. The distribution of powers between the Union and the States, followed in the Constitution, emphasises in many ways the general predominance of Parliament in the legislative field. Apart from a wide-range of subjects, even in normal times, the Parliament can, under certain circumstances, assume legislative power with respect to a subject falling within the sphere exclusively reserved for the States. The Parliament is also vested with powers to impeach the President and to remove the Judges of Supreme Court and High Courts, the Chief Election Commissioner and the Comptroller and Auditor General in accordance with the procedure laid down in the Constitution.

All legislation require consent of both the Houses of Parliament. In the case of money bills, however, the will of the Lok Sabha prevails. Delegated legislation is also subject to review and control by Parliament. Besides the power to legislate, the Constitution vests in Parliament the power to initiate amendment of the Constitution.

PARLIAMENTARY COMMITTEES

The functions of Parliament are not only varied in nature, but considerable in volume. The time at its disposal is limited. It cannot make very detailed scrutiny of all legislative and other matters that come up before it. A good deal of Parliamentary business is, therefore, transacted in the committees.

Both Houses of Parliament have a similar committee structure, with a few exceptions. Their appointment, terms of office, functions and procedure of conducting business are also more or less similar and are regulated as per rules made by the two Houses under Article 118(1) of the Constitution.

Broadly, Parliamentary Committees are of two kinds—Standing Committees and *ad hoc* Committees. The former are elected or appointed every year or periodically and their work goes on, more or less, on a continuous basis. The latter are appointed on an *ad hoc* basis as need arises and they cease to exist as soon as they complete the task assigned to them.

Standing Committees : Among the Standing Committees, the three Financial Committees—*Committees on Estimates, Public Accounts and Public Undertakings*—

constitute a distinct group as they keep an unremitting vigil over Government expenditure and performance. While members of the Rajya Sabha are associated with Committees on Public Accounts and Public Undertakings, the members of the Committee on Estimates are drawn entirely from the Lok Sabha.

The *Estimates Committee* reports on 'what economies, improvements in organisation, efficiency or administrative reform consistent with policy underlying the estimates' may be effected. It also examines whether the money is well laid out within limits of the policy implied in the estimates and suggests the form in which estimates shall be presented to Parliament. The *Public Accounts Committee* scrutinises appropriation and finance accounts of Government and reports of the Comptroller and Auditor-General. It ensures that public money is spent in accordance with Parliament's decision and calls attention to cases of waste, extravagance, loss or nugatory expenditure. The *Committee on Public Undertakings* examines reports of the Comptroller and Auditor-General, if any. It also examines whether public undertakings are being run efficiently and managed in accordance with sound business principles and prudent commercial practices.

Besides these three Financial Committees, the Rules Committee of the Lok Sabha recommended setting-up of 17 *Department Related Standing Committees* (DRSCs). Accordingly, 17 Department Related Standing Committees were set up on 8 April 1993. In July 2004, rules were amended to provide for the constitution of seven more such committees, thus raising the number of DRSCs from 17 to 24. The functions of these Committees are : (a) to consider the Demands for Grants of various Ministries/ Departments of Government of India and make reports to the Houses; (b) to examine such Bills as are referred to the Committee by the Chairman, Rajya Sabha or the Speaker, Lok Sabha, as the case may be, and make reports thereon; (c) to consider Annual Reports of ministries/ departments and make reports thereon; and (d) to consider policy documents presented to the Houses, if referred to the Committee by the Chairman, Rajya Sabha or the Speaker, Lok Sabha, as the case may be, and make reports thereon.

Other Standing Committees in each House, divided in terms of their functions, are (i) Committees to Inquire: (a) *Committee on Petitions* examines petitions on bills and on matters of general public interest and also entertains representations on matters concerning subjects in the Union List; and (b) *Committee of Privileges* examines any question of privilege referred to it by the House or Speaker/Chairman; (ii) Committees to Scrutinise : (a) *Committee on Government Assurances* keeps track of all the assurances, promises, undertakings, etc., given by Ministers in the House and pursues them till they are implemented; (b) *Committee on Subordinate Legislation* scrutinises and reports to the House whether the power to make regulations, rules, sub-rules, bye-laws, etc., conferred by the Constitution or Statutes is being properly exercised by the delegated authorities; and (c) *Committee on Papers Laid on the Table* examines all papers laid on the table of the House by Ministers, other than statutory notifications and orders which come within the purview of the Committee on Subordinate Legislation, to see whether there has been compliance with the provisions of the Constitution, Act, rule or regulation under which the paper has been laid; (iii) Committees relating to the day-to-day business of the House: (a) *Business Advisory Committee* recommends allocation of time for items of Government and other business to be brought before the Houses; (b) *Committee on Private Members' Bills and Resolutions of the Lok Sabha* classifies and allocates time to Bills introduced by private members,

recommends allocation of time for discussion on private members' resolutions and examines Constitution amendment bills before their introduction by private members in the Lok Sabha. The Rajya Sabha does not have such a committee. It is the Business Advisory Committee of that House which recommends allocation of time for discussion on stage or stages of private members' bills and resolutions; (c) *Rules Committee* considers matters of procedure and conduct of business in the House and recommends amendments or additions to the Rules; and (d) *Committee on Absence of Members from the Sittings of the House of the Lok Sabha* considers all applications from members for leave or absence from sittings of the House. There is no such Committee in the Rajya Sabha. Applications from members for leave or absence are considered by the House itself; (iv) *Committee on the Welfare of Scheduled Castes and Scheduled Tribes*, on which members from both Houses serve, considers all matters relating to the welfare of Scheduled Castes and Scheduled Tribes which come within the purview of the Union Government and keeps a watch whether constitutional safeguards in respect of these classes are properly implemented; (v) Committees concerned with the provision of facilities to members : (a) *General Purposes Committee* considers and advises Speaker/Chairman on matters concerning affairs of the House, which do not appropriately fall within the purview of any other Parliamentary Committee; and (b) *House Committee* deals with residential accommodation and other amenities for members; (vi) *Joint Committee on Salaries and Allowances of Members of Parliament*, constituted under the Salary, Allowances and Pension of Members of Parliament Act, 1954, apart from framing rules for regulating payment of salary, allowances and pension to Members of Parliament, also frames rules in respect of amenities like medical, housing, telephone, postal, constituency and secretarial facility; (vii) *Joint Committee on Offices of Profit* examines the composition and character of committees and other bodies appointed by the Central and State governments and Union Territories Administrations and recommends what offices ought to or ought not to disqualify a person from being chosen as a member of either House of Parliament; (viii) *The Library Committee* consisting of members from both Houses, considers matters concerning the Library of Parliament; (ix) On 29 April 1997, a *Committee on Empowerment of Women* with members from both the Houses was constituted with a view to securing, among other things, status, dignity and equality for women in all fields; (x) On 4 March 1997, the *Ethics Committee* of the Rajya Sabha was constituted. The Ethics Committee of the Lok Sabha was constituted on 16 May 2000.

Ad hoc Committees: Such Committees may be broadly classified under two heads : (a) committees which are constituted from time to time, either by the two Houses on a motion adopted in that behalf or by Speaker/Chairman to inquire into and report on specific subjects, (e.g., *Committees on food management in Parliament House Complex, Committee on installation of portraits/statues of National leaders and Parliamentarians in Parliament House Complex, Committee on Security in Parliament Complex, Committee on MPLADS, Committee on Railway convention, etc.*) and (b) *Select or Joint Committees on Bills* which are appointed to consider and report on a particular Bill. These Committees are distinguishable from the other *ad hoc* committees inasmuch as they are concerned with Bills and the procedure to be followed by them as laid down in the Rules of Procedure and Directions by the Speaker/Chairman.

LEADERS OF OPPOSITION IN PARLIAMENT

In keeping with their important role, the Leaders of Opposition in the Rajya Sabha and the Lok Sabha are accorded statutory recognition. Salary and other suitable

facilities are extended to them through a separate legislation brought into force on 1 November 1977.

GOVERNMENT BUSINESS IN PARLIAMENT

The Minister of Parliamentary Affairs is entrusted with the responsibility of coordinating, planning and arranging Government Business in both Houses of Parliament. In the discharge of this function, he is assisted by his Ministers of State. The Minister also keeps close and constant contact with the presiding officers, the leaders as well as chief whips and whips of various parties and groups in both the Houses of Parliament. During the period for 1 July 2009 to 31 May 2010, both Houses of Parliament passed 40 Bills.

CONSULTATIVE COMMITTEES

Functioning of Consultative Committees of Members of Parliament for various Ministries is one of the functions allocated to the Ministry of Parliamentary affairs under the Government of India (Allocation of Business) Rules, 1961. The main objective of these committees is to provide a forum for informal discussion between Members of Parliament, on the one hand, and Ministers and senior officers of the Government, on the other hand, on the policies, principles and programmes of the Government and the manner of their implementation. The Minister/Minister of State in-charge of the Ministry concerned acts as the Chairman of the Consultative Committee attached to that Ministry.

The minimum membership of a Consultative Committee is 10 and the maximum membership is 30. The Consultative Committee stand dissolved upon dissolution of every Lok Sabha and re-constituted upon constitution of each Lok Sabha. After the Constitution of the 15th Lok Sabha, 35 Consultative Committees attached to various Ministries have been constituted on 16th September, 2009. 90 meetings of the various consultative committees were held upto 31 May 2010.

NOMINATION OF MEMBERS OF PARLIAMENT ON GOVERNMENT COMMITTEES/BODIES

The Minister of Parliamentary Affairs nominates Members of Parliament on Committees, Councils, Boards and Commissions, etc., set-up by the Government of India in various Ministries (except in case of statutory or other bodies where the statute or the bye-laws framed thereunder provides that the Member of Parliament to be appointed thereon will be nominated by the Presiding Officers of the respective Houses or will be elected by the Lok Sabha or the Rajya Sabha, as the case may be). The Members are nominated on such Bodies keeping in view their aptitude and special interest in the subject.

YOUTH PARLIAMENT COMPETITION

In order to develop democratic ethos in the younger generation the Ministry conducts Youth Parliament Competition in various categories of schools and colleges/universities. The Youth Parliament Scheme was first introduced in the Schools in Delhi in 1966-67. Kendriya Vidyalayas located in and around Delhi were incorporated into the ongoing Scheme for Delhi Schools in 1978. Subsequently, as separate scheme of Youth Parliament for Kendriya Vidyalayas at the National Level was launched in 1988. Similarly, in 1997-98, two new Youth Parliament Schemes at the national level, one for Jawahar Navodaya Vidyalayas and the other for Universities/Colleges were launched.

OTHER PARLIAMENTARY MATTERS

ALL INDIA WHIPS CONFERENCE

The Ministry of Parliamentary Affairs, Government of India has been organising All India Whips Conference from time to time, with the purpose of establishing suitable links among the whips of various political parties at the Centre and the States who are concerned with the practical working of the legislatures to discuss matters of common interest and to evolve high standards to strengthen the institution of Parliamentary Democracy. Fifteen All India Whips' Conferences have been organized so far since 1952.

MATTERS UNDER RULE 377 AND SPECIAL MENTIONS

The Ministry of Parliamentary Affairs takes follow-up action on matters raised under Rule 377 of the Rules of Procedure and Conduct of Business in Lok Sabha and by way of Special Mentions in Rajya Sabha. Also after 'Question Hour' in both the Houses of Parliament, Members raise matters of urgent public importance. Though it is not mandatory, Ministers sometimes react to the points made by the Members. In the absence of concerned Minister the Minister of Parliamentary Affairs assures the House or the individual Members that their sentiments would be conveyed to the concerned Ministers.

IMPLEMENTATION OF ASSURANCES

The Ministry culls out assurances, promises, undertakings, etc., given by Ministers in both the Houses of Parliament, from the daily proceedings and forwards them to the concerned Ministries/Departments for implementation. After due scrutiny of the implementation reports received from the various Ministries/Departments concerned, statements showing action taken by the Government in implementation of the assurances are periodically laid on the Table of the Houses by Minister/Minister of State for Parliamentary Affairs.

The Parliamentarians of a country play a significant role in determining the policy of the country and strengthening of relations with other countries. It is useful and necessary for a democratic and developing country like India to select some Members of Parliament and distinguished personalities and utilize their services in projecting our policies, programmes and achievement in different fields with their counterparts and other opinion makers in other countries and secure their support in favour of India.

With these objectives in view, the Ministry of Parliamentary Affairs sponsors Government Goodwill Delegation of Members of Parliament to other countries and receives similar Government sponsored delegations of parliamentarians under the exchange programme from other countries through the Ministry of External Affairs.

During the period from 1 July, 2009 to 31 May, 2010 three Parliamentary Delegations from Japan, Afghanistan and Paraguay called on Minister of Parliamentary Affairs/Minister of State for Parliamentary Affairs and exchanged views on functions of Parliament and other matters of mutual interest.

WELFARE OF MEMBERS OF PARLIAMENT

The Ministry of Parliamentary Affairs looks after the welfare of ailing Members of Parliament admitted for treatment in hospitals in Delhi and render any assistance required by them. Between 01.07.2009 to 31.05.2010, it had extended assistance and

help to 33 Members of Parliament who were admitted to hospitals, as and when required.

In the unfortunate event of passing away of a Member of Parliament in Delhi, the Ministry of Parliamentary Affairs renders all necessary assistance to the bereaved family members in taking the mortal remains of the deceased Member for last rites to a place chosen by the family. During the period under report, assistance was provided on the sad demise of four Members of Parliament.

ADMINISTRATIVE SET-UP

The Government of India (Allocation of Business) Rules, 1961 are made by the President of India under Article 77 of the Constitution for the allocation of business of the Government of India. The Ministries/Departments of the Government are created by the President on the advice of the Prime Minister under these Rules. The business of the Government are transacted in the Ministries/Departments, Secretariats and offices (referred to as 'Department') as per the distribution of subjects specified in these Rules. Each of the Ministry(ies) is assigned to a Minister by the President on the advice of the Prime Minister. Each department is generally under the charge of a Secretary to assist the Minister on policy matters and general administration.

CABINET SECRETARIAT

The Cabinet Secretariat in terms of provisions of the Government of India (Allocation of Business) Rules, 1961 functions directly under the Prime Minister. The administrative head of the Secretariat is the Cabinet Secretary who is also the ex-officio Chairman of the Civil Services Board.

The business allotted to cabinet secretariat is (i) Secretarial assistance to Cabinet and Cabinet Committees; and (ii) Rules of Business.

The Cabinet Secretariat is responsible for the administration of the Government of India (Transaction of Business) Rules, 1961 and the Government of India (Allocation of Business) Rules 1961, facilitating smooth transaction of business in Ministries/Departments of the Government by ensuring adherence to these rules. The Secretariat assists in decision-making in Government by ensuring Inter-Ministerial coordination, ironing out differences amongst Ministries/Departments and evolving consensus through the instrumentality of the standing and *ad hoc* Committees of Secretaries.

The Cabinet Secretariat ensures that the President, the Vice-President and Ministers are kept informed of the major activities of all Ministries/Departments by means of monthly summary of their activities. Management of major crisis situations in the country and coordinating activities of various Ministries in such a situation is also one of the functions of the Cabinet Secretariat.

The Cabinet Secretariat is seen as a useful mechanism by the departments for promoting inter-Ministerial coordination since the Cabinet Secretary is also the head of the civil services. The Secretaries felt it necessary to keep the Cabinet Secretary informed of developments from time to time. The Transaction of Business Rules also require them to keep the Cabinet Secretary informed specially if there are any departures from these rules.

A list of cabinet secretaries since 1950 is given in **Chapter 32 - General Information**.

MINISTRIES/DEPARTMENTS OF THE GOVERNMENT

The Government consists of a number of Ministries/Departments, number and character varying from time to time on factors such as volume of work importance attached to certain items, changes of orientation, political expediency, etc.

LIST OF THE MINISTRIES/DEPARTMENTS

1. Ministry of Agriculture (*Krishi Mantralaya*)

- (i) Department of Agriculture and Co-operation
(*Krishi aur Sahkarita Vibhag*)
- (ii) Department of Agricultural Research and Education
(*Krishi Anusandhan aur Shiksha Vibhag*)
- (iii) Department of Animal Husbandry and Dairying
(*Pashupalan aur Dairy Vibhag*)

2. Ministry of Chemicals and Fertilizers (*Rasayan aur Urvarak Mantralaya*)

- (i) Department of Chemicals and Petro-Chemicals
(*Rasayan aur Petro-Rasayan Vibhag*)
- (ii) Department of Fertilizers (*Urvarak Vibhag*)
- (iii) Department of Pharmaceutical.

3. Ministry of Civil Aviation (*Nagar Vimanan Mantralaya*)

4. Ministry of Coal (*Koyala Mantralaya*)

5. Ministry of Commerce and Industry (*Vanijya aur Udyog Mantralaya*)

- (i) Department of Commerce (*Vanijya Vibhag*)
- (ii) Department of Industrial Policy and Promotion
(*Audyogik Niti aur Samvardhan Vibhag*)

6. Ministry of Communications and Information Technology (*Sanchar aur Soochana Praudyogiki Mantralaya*)

- (i) Department of Telecommunications (*Doorsanchar Vibhag*)
- (ii) Department of Post (*Dak Vibhag*)
- (iii) Department of Information Technology
(*Soochana Praudyogiki Vibhag*)

7. Ministry of Consumer Affairs, Food and Public Distribution (*Upbhokta Mamle, Khadya aur Sarvajanik Vitaran Mantralaya*)

- (i) Department of Consumer Affairs
(*Upbhokta Mamle Vibhag*)
- (ii) Department of Food and Public Distribution
(*Khadya aur Sarvajanik Vitaran Vibhag*)

8. Ministry of Corporate Affairs (*Korporate Karya Mantralaya*)

9. Ministry of Culture (*Sanskriti Mantralaya*)

10. Ministry of Defence (*Raksha Mantralaya*)

- (i) Department of Defence (*Raksha Vibhag*)
- (ii) Department of Defence Production
(*Raksha Utpadan aur Aapoorti Vibhag*)
- (iii) Department of Defence Research and Development
(*Raksha Anusandhan aur Vikas Vibhag*)

(iv) Department of Ex-servicemen Welfare

11. Ministry of Development of North-Eastern Region (*Uttar Poorvi Kshetra Vikas Mantralaya*)

12. Ministry of Earth Sciences (*Bhoo Vigyan Mantralaya*)

13. Ministry of Environment and Forests (*Paryavaran aur Van Mantralaya*)

14. Ministry of External Affairs (*Videsh Mantralaya*)

15. Ministry of Finance (*Vitta Mantralaya*)

(i) Department of Economic Affairs (*Arthik Karya Vibhag*)

(ii) Department of Expenditure (*Vyaya Vibhag*)

(iii) Department of Revenue (*Rajaswa Vibhag*)

(iv) Department of Financial Services (*Vittiya Sewayen Vibhag*)

(v) Department of Disinvestment

16. Ministry of Food Processing Industries (*Khadya Prasanskaran Udyog Mantralaya*)

17. Ministry of Health and Family Welfare

(*Swasthya aur Parivar Kalyan Mantralaya*)

(i) Department of Health and Department of Family Welfare (*Swasthya Mantralaya aur Parivar Kalyan Mantralaya*)

(ii) Department of Ayurveda, Yoga-Naturopathy, Unani, Siddha and Homoeopathy (AYUSH)
(*Ayurveda, Yoga-Prakritik Chikitsa Paddhati, Unani, Siddha aur Homoeopathy Vibhag*)

(iii) Department of AIDS Control

(iv) Department of Health Research

18. Ministry of Heavy Industries and Public Enterprises

(*Bhari Udyog aur Lok Udyam Mantralaya*)

(i) Department of Heavy Industries (*Bhari Udyog Vibhag*)

(ii) Department of Public Enterprises (*Lok Udyam Vibhag*)

19. Ministry of Home Affairs (*Grih Mantralaya*)

(i) Department of Internal Security (*Antarik Suraksha Vibhag*)

(ii) Department of States (*Rajya Vibhag*)

(iii) Department of Official Language (*Raj Bhasha Vibhag*)

(iv) Department of Home (*Grih Vibhag*)

(v) Department of Jammu and Kashmir Affairs
(*Jammu tatha Kashmir Vibhag*)

(vi) Department of Border Management
(*Seema Prabandhan Vibhag*)

20. Ministry of Housing and Urban Poverty Alleviation (*Aawas aur Shahari Garibi Upshaman Mantralaya*)

21. Ministry of Human Resource Development

(*Manav Sansadhan Vikas Mantralaya*)

(i) Department of School Education and Literacy
(*School Shiksha aur Saksharta Vibhag*)

- (ii) Department of Higher Education
(*Uchchatar Shiksha Vibhag*)
- 22. Ministry of Information and Broadcasting**
(*Soochana aur Prasaran Mantralaya*)
- 23. Ministry of Labour and Employment (*Shram aur Rozgar Mantralaya*)**
- 24. Ministry of Law and Justice**
(*Vidhi aur Nyaya Mantralaya*)
 - (i) Department of Legal Affairs (*Vidhi Karya Vibhag*)
 - (ii) Department of Legislative (*Vidhi Vibhag*)
 - (iii) Department of Justice (*Nyaya Vibhag*)
- 25. Ministry of Micro, Small and Medium Enterprises**
(*Sukshma Laghu Aur Madhyam Udyam Mantralaya*)
- 26. Ministry of Mines (*Khan Mantralaya*)**
- 27. Ministry of Minority Affairs**
(*Alpasankhyak Karya Mantralaya*)
- 28. Ministry of New and Renewable Energy**
(*Naveen Aur Navikarniya Oorja Mantralaya*)
- 29. Ministry of Overseas Indian Affairs (*Apravasi Bharatiyon Ke Mamalon Ka Mantralaya*)**
- 30. Ministry of Panchayati Raj (*Panchayati Raj Mantralaya*)**
- 31. Ministry of Parliamentary Affairs (*Sansadiya Karya Mantralaya*)**
- 32. Ministry of Personnel, Public Grievances and Pensions**
(*Karmik Lok Shikayat tatha Pension Mantralaya*)
 - (i) Department of Personnel and Training
(*Karmik aur Prashikshan Vibhag*)
 - (ii) Department of Pensions and Pensioners' Welfare
(*Pension aur Pension Bhogi Kalyan Vibhag*)
 - (iii) Department of Administrative Reforms and Public Grievances
(*Prashasnik Sudhar and Lok Shikayat Vibhag*)
- 33. Ministry of Petroleum and Natural Gas**
(*Petroleum aur Prakritik Gas Mantralaya*)
- 34. Ministry of Power (*Oorja Mantralaya*)**
- 35. Ministry of Railways (*Rail Mantralaya*)**
- 36. Ministry of Road Transport and Highways**
(*Sarak Parivahan aur Raj Marg Mantralaya*)
- 37. Ministry of Rural Development (*Gramin Vikas Mantralaya*)**
 - (i) Department of Rural Development
(*Gramin Vikas Vibhag*)
 - (ii) Department of Land Resources
(*Bhumi Sansadhan Vibhag*)
 - (iii) Department of Drinking Water Supply
(*Peya Jal Poorti Vibhag*)

38. Ministry of Science and Technology (*Vigyan aur Praudyogiki Mantralaya*)

- (i) Department of Science and Technology
(*Vigyan aur Praudyogiki Vibhag*)
- (ii) Department of Scientific and Industrial Research
(*Vigyan aur Audyogik Anusandhan Vibhag*)
- (iii) Department of Bio-Technology (*Biotechnology Vibhag*)

39. Ministry of Shipping**40. Ministry of Social Justice and Empowerment
(*Samajik Nyaya aur Adhikarita Mantralaya*)****41. Ministry of Statistics and Programme Implementation
(*Sankhyiki aur Karyakram Kiryanvayan Mantralaya*)****42. Ministry of Steel (*Ispat Mantralaya*)****43. Ministry of Textiles (*Vastra Mantralaya*)****44. Ministry of Tourism (*Paryatan Mantralaya*)****45. Ministry of Tribal Affairs (*Janjatiya Karya Mantralaya*)****46. Ministry of Urban Development (*Shahari Vikas Mantralaya*)****47. Ministry of Water Resources (*Jal Sansadhan Mantralaya*)****48. Ministry of Women and Child Development
(*Mahila Aur Bal Vikas Mantralaya*)****49. Ministry of Youth Affairs and Sports (*Yuva Karyakram aur Khel Mantralaya*)**

- (i) Department of Youth Affairs
- (ii) Departments of Sports

CENTRAL GOVERNMENT (INDEPENDENT DEPARTMENTS)**50. Department of Atomic Energy (*Parmanu Oorja Vibhag*)****51. Department of Space (*Antariksh Vibhag*)****APEX/INDEPENDENT OFFICE****52. Planning Commission (*Yojana Ayog*)****53. Cabinet Secretariat (*Mantrimandal Sachivalaya*)****54. President's Secretariat (*Rashtrapati Sachivalaya*)****55. Prime Minister's Office (*Pradhan Mantri Karyalaya*)****PERFORMANCE MANAGEMENT - RESULTS FRAMEWORK DOCUMENT**

Pursuant to the announcement made in the President's address to both Houses of the Parliament on June 4, 2009, the Prime Minister approved the outline of the Performance monitoring and Evaluation System (PMES) for Government Departments on September 11, 2009. Performance Management Division in the Cabinet Secretariat is responsible for this activity through the mechanism called Results-Framework Documents. (RFD).

At the beginning of each financial year, with the approval of the Minister concerned, each Department is required to prepare a Results-Framework Document (RFD) consisting of the priorities set out by the Minister concerned, agenda as spelt out by the Government from time to time. The Minister in-charge decides the *inter-se* priority among the departmental objectives.

The RFD seeks to address three basic questions; (a) what are department's main objectives for the year? (b) what actions are proposed to achieve these objectives? (c) how would someone know at the end of the year the degree of progress made in implementing these objectives. i.e. what are the relevant success indicators and their targets?

RFDs are discussed and finalized by the Ministers / Departments after thorough discussion with the Ad hoc Task Force (ATF) consisting of retired civil servants, domain experts, and leading management experts. This process helps the Ministries / Departments in arriving at realistic performance targets. The RFDs so reviewed are approved by the High Power Committee (HPC) on Government performance headed by the Cabinet Secretary.

At the end of the year, all ministries/ departments are required to review and prepare a report listing their respective achievements against the agreed targets in the prescribed format. This report is expected to be finalized by the 1st of May each year.

All 59 ministers and departments covered under Phase 1 finalized their Results-Framework Documents (RFD) for the last quarter of 2009-2010 and assessed their achievements for this period.

In the subsequent phase of implementation of this initiative, 62 departments and ministries have prepared their Results-Framework Documents for 2010-11, which have been reviewed by the ad hoc task force and approved by the High Power Committee on Government Performance. These have been placed on the respective websites of the Departments/Ministries.

In order to build capacity on performance management in Government, 24 workshops have been conducted across the country in collaboration with IIM Ahmedabad and Lal Bahadur Shastri National Academy at Mussoorie. Training materials and manuals have also been prepared and distributed.

In addition to the performance management through results-framework document, PMD of the Cabinet Secretariat has also undertaken various initiatives relating to overall improvement in the functioning of the Government departments These are :

(i) 2nd ARC on Organisational Structure of Government of India-Implemtery of Recommendation

Administrative Reforms Commission-II (ARC) in its report on "Organisational Structure of Government of India" *Inter alia* recommended that Government of India should primarily focus on core functions and that it should, at all levels, be guided by the principle of subsidiarity. It was further recommended that there was a need to carry out a detailed analysis of the functions/activities in each Ministry/Department which would help the Ministries to prepare an action plan for delegating implementation activities and non-core activities to attached and subordinate offices.

The Performance Management Division is holding consultations with domain experts for effective implementation of this recommendation of the ARC.

(ii) Performance Related Incentives (PRI)

Incentives play an important role in improving performance of employees in public and private sectors. Performance Related Incentives (PRI) is defined as the variable

part of pay which is awarded each year depending on performance. The scheme is applied at the individual employee level and at the team/group level. The Scheme has two parts-one part measures the performance of the entity; and the second links the performance to financial incentives.

As per the recommendations of the successive Pay Commissions, and recently of the Sixth Pay Commission, the PRI scheme is being proposed to be introduced.

(iii) Performance Appraisal Report (PAR) System

The system of Performance Appraisal Report as laid down in the All India Service (PAR) Rules, 2007 is being reviewed owing to widespread dissatisfaction with the working of the PAR system at all levels. Keeping in view the conceptual and procedural flows in the performance evaluation methodology of PAR system, a set of corrective measures is being proposed by the Performance Management Division.

(iv) Operationalizing 'Sevottam'

The PMD, in Partnership with Department of Administrative Reforms & Public Grievances, has decided to operationalize the concept of 'Sevottam' through the mechanism of Results-Framework Document.

Ministries/Departments are expected to design citizen/client charters along with a robust Public Grievance Redress Mechanism. In order to better monitor compliance, ministries/Departments have been advised to include the 'Sevottam' concept in their Results/Framework Documents as a mandatory performance indicator.

(v) Assisting State Governments in Implementing RFD

On the lines of the Results-Frameworks Documents devised by the Government of India, various States have come forward to put in place a similar performance management mechanism for better and improved performance of their respective Governments.

The Performance Management Division of the Cabinet Secretariat is providing assistance from time to time to the State Governments of Maharashtra and Punjab by holding workshops for implementing the RFD based performance management system in these states. The States of Jammu & Kashmir, Karnataka, Orissa, Bihar and Jharkhand have also shown interest and sought cooperation of PMD in this regard.

(vi) Implementing e-Office

In its efforts to move towards a paperless office, the day to day working of the PMD and the Cabinet Secretariat is being carried out through the e-Office system developed by the NIC. This paperless e-Office system is expected to be a role model for all other Departments of the Government of India.

NATIONAL AUTHORITY, CHEMICAL WEAPONS CONVENTION

National Authority, Chemical Weapons Convention (NACWC) was constituted by a Government of India resolution dated 5th May 1998 to fulfil the obligations enunciated in the Chemical Weapons Convention, which was initially signed by 130 countries in a conference which concluded on 14th January, 1993 for the purpose of prohibiting the development, production, execution, transfer, use and stockpiling of all chemical weapons by Member-States in a nondiscriminatory manner. The number of countries who have signed the Convention now is 188. To fulfil its obligations, each State Party

has to designate or establish a National Authority to serve as the national focal point for effective implementation of the Chemical Weapons Convention. Hence the NACWC under the administrative control of the Cabinet Secretariat was set up.

A high level steering committee under the Chairmanship of the Cabinet Secretary is in existence to oversee the functioning of the National Authority. The other members of this steering committee are Secretary (Chemical & Petrochemicals), Foreign Secretary, SA to RM & Secretary, (Defence Research & Development), Defence Secretary, Secretary, (Commerce), Secretary (Revenue) and Chairman, NACWC. The NACWC is responsible for implementation of CWC Act, collection of data for fulfilling India's declaration obligations, coordinating OPCW inspections, providing appropriate facilities for training national inspectors and industry personnel, ensuring protection of confidential business information, checking declarations for consistency, accuracy and completeness, registration of entities engaged in activities related to CWC, etc.

COMPTROLLER AND AUDITOR GENERAL

The Comptroller and Auditor General of India is appointed by the President. The procedure and the grounds for his removal from office are the same as for a Supreme Court Judge. He is not eligible for further office under the Union or a State government after he ceases to hold his office.

He shall perform such duties and exercise such powers in relation to the accounts of the Union and of the States and of any other authority or body as may be prescribed by or under any law made by Parliament and, until provision in that behalf is so made, shall perform such duties and exercise such powers in relation to the accounts of the Union and of the States as were conferred on or exercisable by the Auditor-General of India immediately before the commencement of this Constitution in relation to the accounts of the Dominion of India and of the provinces respectively.

The accounts of the Union and of the States shall be kept in such form as the President may, on the advice of the Comptroller and Auditor-General of India, prescribe. The reports of the Comptroller and Auditor-General of India relating to the accounts of the Union shall be submitted to the president, who shall cause them to be laid before each House of Parliament. The reports of the Comptroller and Auditor-General of India relating to the accounts of a State shall be submitted to the Governor of the State, who shall cause them to be laid before the Legislature of the State.

The duties, powers and conditions of service of the Comptroller and Auditor-General have been specified by the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971.

PUBLIC SERVICES

ALL INDIA SERVICES

Prior to Independence, the Indian Civil Service (ICS) was the senior most amongst the Services of the Crown in India. Besides the ICS, there was also the Indian Police Service. After Independence, it was felt that though the ICS was a legacy of the imperial period there was need for the All India Services for maintaining the unity, integrity and stability of the nation. Accordingly, a provision was made in Article 312 of the Constitution for creation of one or more All India Services common to the Union and State. The Indian Administrative Service and the Indian Police Service are deemed to be constituted by the Parliament in terms of Article 312 of the Constitution. After the promulgation of the Constitution, a new All India Service, namely, the Indian Forest

Service, was created in 1966. A common unique feature of the All India Services is that the members of these services are recruited by the Centre but their services are placed under various State cadres and they have the liability to serve both under the State and under the Centre. This aspect of the All India Services strengthens the unitary character of the Indian federation.

Of the three All India Services, namely, the Indian Administrative Service (IAS), the Indian Police Service (IPS) and the Indian Forest Service (IFS), the Ministry of Personnel, Public Grievances and Pension is the cadre controlling authority for the IAS. The recruitment to all the three services is made by the UPSC. These officers are recruited and trained by the Central Government and then allotted to different State cadres.

UNION PUBLIC SERVICE COMMISSION

The Constitution provides for an independent body known as Union Public Service Commission (UPSC) for recruitment to Group 'A' and Group 'B' Gazetted posts under Central Government and for advice in various service matters. The Chairman and Members of the Commission are appointed by the President for tenure of six years or till they attain the age of 65 years, whichever is earlier. To ensure independence, chairman after completion of tenure is not eligible for any further employment either under the Government of India or Government of a State. The Members are also covered by the above provision but they are eligible for appointment as chairman of Union Public Service Commission or State Public Service Commission. They can not be removed except for the reasons and in the manner provided for in the Constitution. A list of the Chairman Since 1926 has been given in the chapter on **General Information (Chapter-32)**.

The Union Public Service Commission conducted the Civil Services Examination, 2008 for recruitment to the following 23 services out of which 18 are Group 'A' Services and the remaining 5 are Group 'B' Services.

- i) The Indian Administrative Service.
- ii) The Indian Foreign Service.
- iii) The Indian Police Service.
- iv) The Indian P&T Accounts and Finance Services. Group 'A'
- v) The Indian Audit and Accounts Service, Group 'A'
- vi) Indian Revenue Service (Customs & Central Excise) Gr. 'A'
- vii) The Indian Defence Accounts Service, Group 'A'
- viii) The Indian Revenue Service, (I.T.) Group 'A'
- ix) The Indian Ordnance Factories Service, Group 'A' (Asstt. Works Manager-Non-technical)
- x) The Indian Postal Service. Group 'A'
- xi) The Indian Civil Accounts Service, Group 'A'
- xii) The Indian Railway Traffic Service, Group 'A'
- xiii) The Indian Railway Accounts Service, Group 'A'
- xiv) The Indian Railway Personnel Service, Group 'A'
- xv) Post of Assistant Security Officer, Group 'A' in Railway Protection Force.
- xvi) The Indian Defence Estates Service, Group 'A'

- xvii) The Indian Information Service, Junior Grade Group 'A'
- xviii) The Indian Corporate Law Service, Group 'A'
- xix) The Armed Forces Headquarters Civil Service, Group 'B' ((Section Officer's Grade)
- xx) The Delhi, Andaman and Nicobar Islands, Lakshadweep, Daman & Diu and Dadra & Nagar Haveli Civil Service, Group 'B'.
- xxi) The Delhi, Andamand and Nicobar Islands, Laskhadweep Daman & Diu and Dadra & Nagar Haveli Police Service, Group 'B'
- xxii) Pondicherry, Civil Service, Group 'B'
- xxiii) Pondicherry, Police Service, Group 'B'.

On the basis of the results declared in the year 2009 of the Civil Services Examination, 2008, the following number of candidates were allocated to the IAS, IFS and IPS, Central Services Group 'A' and Central Services Group 'B'.

Service	General	OBC	SC	ST	Total
IAS	59	33	17	10	119
IFS	13	8	4	1	26
IPS	65	35	19	9	128
Central Civil Services (Group 'A')	215	120	70	34	439
Central Civil Services (Group 'B')	3	3	1	1	8
Total	355	199	111	55	720

CIVIL SERVICES REFORMS

Second ARC in its 10th Report in November, 2008 on the subject "Refurbishing of Personnel Administration" has given various recommendations on Civil Services Reforms. The recommendations include (i) Stage of entry into Civil services (ii) Age of entry and number of attempts (iii) Structure of Civil Services Examination (iv) Other modes of induction into Civil Services i.e., induction of officers of State Civil Services into IAS to be made by UPSC on the basis of common examination and (v) Allotment of cadres to All India Services.

The various recommendations given by ARC have been considered by a Core Group on Administrative Reforms headed by Cabinet Secretary. Thereafter, decision would be taken at an appropriate level for implementing the accepted recommendations.

INTER-CADRE DEPUTATION

Inter-cadre deputation is permissible to All India Service officers on completion of their nine years of service and before attaining promotion to super-time scale in his/her own home cadre. Such deputation is considered in view of the personal difficulties of the officers concerned and is permissible for a maximum period of 5 years in the entire service career of the officers and the period at a time thereof normally do not exceed three years.

INTER-CADRE TRANSFER

Inter-cadre transfer is normally permissible to an All India Service officer on the ground of his/her marriage to another officer of the All India Services. The couple is normally transferred to one of the two cadres on which they are borne except home State of the officer whose cadre is changed. In the case of refusal by both the cadres the matter is formally taken up a second time with both the cadres. In case of continued refusal by both the cadres to accept the officers concerned, possibilities are explored for transfer of the officers to a third cadre being deficit one subject to concurrence of the State Government concerned. Other grounds for cadre transfer of All India service officers is 'extreme hardship' which includes (a) threat to the life of the officer or his immediate family and (b) severe health problems to the officer or his immediate due to the climate or environment of the state to which he is allotted. In the case of lady officers borne on North eastern cadres marries officer borne on another cadre the lady officer is mandatorily transferred to her spouse's cadre the lady officer is mandatorily transferred to her spouse's cadre if she so request except her home cadre. All India Service officers belonging to North Eastern cadre may be allowed transfer of cadre to any other cadre in the North East in relaxation of the existing conditions subject to availability of deficit in the insider quota.

RESERVATION IN SERVICES

Reservation in services under the Government of India is available to the Scheduled Castes (SCs.) the Scheduled Tribes (ST's), the Other Backward Classes (OBCs), the Persons with Disabilities and the Exservicemen, The quantum of reservation for SCs, STs and OBCs in direct recruitment on all-India basis by open competition is 15 per cent, 7.5 per cent and 27 per cent respectively. In direct recruitment on all-India basis otherwise than by open competition, it is available at the rate of 16.66 per cent for SCs, 7.5 per cent for STs and 25.84 per cent for OBCs. In case of direct recruitment to Group C and D posts normally attracting candidates from a locality or a region, percentage of reservation for SCs and STs is generally fixed in proportion to their population in the respective States/UTs and for OBCs it is fixed keeping in view the proportion of their population in the concerned State/UT and the fact that total reservation for SCs/STs/OBCs remains within the limit of 50 per cent and reservation for OBCs remains within the limit of 27 per cent. The SCs and STs get reservation in promotion in all grades at the rate of 15 per cent and 7.5 per cent respectively when promotions are made by non-selection. In case of promotion by selection, reservation to SCs and STs is available at the same rates upto the lowest rung of Group A. There is no reservation in case of promotion by selection within group 'A' but in case of promotion by selection from Group 'A' post to another Group 'A' post carrying a pay-scale, maximum of which is Rs. 18,300/- or less (in the pre-revised scale of pay), the SC and ST candidates who are within the number of vacancies are included in the select list provided they are not found unfit to hold the post.

Three percent of vacancies in identified posts in direct recruitment are kept reserved for persons with disabilities in all Groups of posts. Reservation to persons with disabilities is also provided in case of promotion to Group 'C' and 'D' posts. Reservation is distributed equally amongst three categories of disabilities namely, blindness or low vision, hearing impairment, locomotor disability or cerebral palsy.

Ten percent of the vacancies in the posts of the level of Assistant Commandant in para-military forces, ten percent of the vacancies in Group C posts and twenty percent of the vacancies in Group D posts are reserved for the ex-servicemen.

Reservation for ex-servicemen and physically handicapped persons is termed as “horizontal” reservation and reservation for SCs, STs and OBCs is termed as “vertical” reservation. Guidelines exist explaining how the “horizontal” reservation is to be adjusted against the “vertical” reservation.

Articles 341 and 342 of the Constitution define as to who would be the SCs and the STs with respect to any State or Union Territory. A list of OBCs has been prepared by the Government. The inter-state area restrictions have been imposed so that the people belonging to the specific community residing in a specific area which has been assessed to qualify for SC, ST or OBC status only benefit from the facilities provided for them. Definition of ‘ex-servicemen’ for the purpose of getting reservation in services is contained in the Ex-servicemen (Re-employment in Civil Services and Posts) Rules, 1979 and conditions for reservation to persons with disabilities are derived from the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995.

To ensure that served vacancies are filled by the candidates belonging to appropriate category, certain relaxations and concessions like relaxation in upper age-limit etc. are provided to the candidates belonging to the reserved categories. Liaison officers have been appointed for Scheduled Tribes, Other Backward Classes and Persons with Disabilities in each Ministry/Department to ensure proper implementation of reservation policy for them.

There is a general ban on de-reservation of vacancies reserved for SCs, STs and OBCs in the matter of direct recruitment. If some vacancies reserved for them could not be filled in a recruitment year, these are kept vacant and are treated as backlog reserved vacancies. The Government has been conducting Special Recruitment Drives to fill up such backlog vacancies, from time to time. The Government has launched a Special Recruitment Drive in November, 2008 to fill up the backlog reserved vacancies of SCs and STs in both direct recruitment and promotion quota and for OBCs in direct recruitment.

Similarly, the Government has launched a Special Recruitment Drive to fill up the backlog reserved vacancies of Persons with Disabilities in November, 2009.

The progress of both the drives is being monitored at Joint Secretary Level in each Ministry/Department.

The scheme of reservation is being followed by Public Sector Undertakings including Nationalized Public Sector Banks. This scheme has also been extended to the Autonomous Bodies, Statutory and Semi-Government Bodies and such Voluntary Agencies which receive grant of Rs. 2 lakhs and above from the Consolidated Fund of India, employ more than 20 persons on a regular basis and at least 50 per cent of its recurring expenditure is met from grants-in-aid from Central Government. State Governments have also provided for reservation of posts for SCs, STs, OBCs, etc. and have taken steps to increase their representation in State services. Reservation in State Government services, however, is under the exclusive jurisdiction of respective State Governments.

Number of SCs, STs and OBCs in services was initially very small. Their representation, particularly of SCs and STs has increased substantially as a result of reservation. The representation of OBCs in the services is low for the reasons that reservation for OBCs has started only in 1993. The representation of SCs, STs, OBCs,

in the Central Government services as on 1 January, 2008 is given in the following table:

Group	Total Employees	SCs	%	STs	%	OBCs	%
A	91881	11446	12.5	4419	4.8	5031	5.5
B	137272	20481	14.9	7900	5.8	5420	3.9
C	1810141	284925	15.7	127074	7.0	145819	8.1
D (Excluding Sweepers)	696891	134907	19.4	48133	6.9	34528	5.0
Sweepers	75901	39014	51.4	4576	6.0	2430	3.2
Total (Excluding Sweepers)	2736185	451759	16.51	187526	6.85	190798	6.97
Total (Including Sweepers)	2812086	490773	17.45	192102	6.83	193228	6.87

It does not include information in respect of six Ministries/ Departments.

STAFF SELECTION COMMISSION

Staff Selection Commission (SSC) with Headquarters at New Delhi initially known as Subordinate Service Commission was set up on 1st July, 1978. It has been entrusted with the work of making recruitment to (i) all non-Gazetted Group 'B' posts in the various Ministries/Departments of the Government and their attached and subordinate offices and (ii) all non-technical Group 'C' posts in the various Ministries/Departments of the Government and their attached and subordinate offices, except those posts which are specifically exempted from the purview of the Staff Selection Commission. The Commission is an attached office of the Department of Personnel and Training and comprises a Chairman, two Members and Secretary-cum-Controller of Examinations. The Commission has Regional offices at New Delhi, Allahabad, Mumbai, Kolkata, Guwahati, Chennai and Bangalore and Sub-Regional offices at Raipur and Chandigarh.

CENTRAL SECRETARIAT SERVICES

The Central Secretariat has three services, namely (i) Central Secretariat Service (CSS), (ii) Central Secretariat Stenographer's Service (CSSS) and (iii) the Central Secretariat Clerical Service (CSCS). The Central Secretariat Service Division in the Department of Personnel and Training is the cadre controlling authority in respect of these services. The CSS includes posts from Assistant Grade (Group B Non-Gazetted), Section Officer's Grade (Group B Gazetted), Under Secretary, Grade-I (Group A Gazetted), Deputy Secretary-Selection Grade (Group A Gazetted) and Director-Senior Selection Grade (Group A Gazetted). In addition to the above, some officers of the CSS are also placed in the Senior Administrative Grade and Higher Administrative Grade through the Central Staffing Scheme. The first three grades viz. Director, Deputy Secretary and Under Secretary are centrally administered by the CS Division. The remaining grades i.e. Section Officers and assistants are partially decentralized into 38 sub-cadres functioning for the purpose. Day to day cadre management of these two cadres is

done by the respective cadre units. After the restructuring of the CSS in October, 2003, it was decided by the Government to administer the grades of Section Officer and Assistant on a centralized basis. All policy matters, fixation of seniority as well as Select Lists, etc are also dealt with centrally by this Department.

The Government had set up a Cadre Restructuring Committee on 16 June, 2008 (i) to assess the magnitude of stagnation in various grades of CSS, (ii) to review the structure of the CSS, and (iii) to suggest remedial measures-both short term and long term. The Committee has since submitted its report in November, 2008. The report was later on considered by the Committee of Secretaries on 9 February, 2010. Based on the recommendations of the Committee of Secretaries a draft cabinet note in the matter is being finalised.

ADMINISTRATIVE REFORMS AND PUBLIC GRIEVANCES

Department of Administrative Reforms and Public Grievances (DARPG) is the nodal agency of the Government for administrative reforms as well as redressal of public grievances relating to the States in general and grievances pertaining to Central Government agencies in particular. The Department disseminates information on important activities of the Government relating to administrative reforms, best practices and public grievance redressal through publications and documentation. The Department also undertakes activities in the field of international exchange and cooperation to promote public service reforms.

The mission of the Department is to foster excellence in governance and pursuit of administrative reforms through improvements in government structures, promoting citizen centric governance with emphasis on grievance redressal, innovations in e-governance and documentation and dissemination of best practices. A brief description of the current activities are given below :

ADMINISTRATIVE REFORMS

- (i) Annual Conference of the Chief Secretaries of State governments / UTs - To institutionalize the process of interaction with State governments / UT administrations on issues that relate to individual States / UTs as well as issues of common concern, the first conference was organized on February 1-2, 2010. In the conference issues of science and technology and global issues impacting the government were also discussed.
- (ii) The Civil Services Day - To rededicate and recommit ourselves to the cause of the people, April 21 has been declared as Civil Services Day and is being celebrated every year since 2006. The Fifth Civil Services Day was organized by the Department on April 21, 2010 at Vigyan Bhavan.
- (iii) The Conference of Secretaries of Administrative Reforms in State/UTs is held annually to share the experiences in the area of government reforms.
- (iv) Regional Conferences on Administrative Reforms are held every year to disseminate and share best practices.
- (v) Administrative Reforms Commission

The Second Administrative Reforms Commission (ARC) was constituted on 31.8.2005, as a Commission of Inquiry, under the Chairmanship of Shri Veerappa Moily for preparing detailed blueprint for revamping the public administrative system. The Commission was requested to suggest measures to achieve a proactive,

responsive, accountable, sustainable and efficient administration for the country at all levels of the Government. It has presented 15 reports to the Government for consideration.

The Government constituted a Group of Ministers (GoM) on 30 March, 2007 to consider the recommendations of the second ARC and to review the pace of implementation of the recommendations as well as to provide guidance to the concerned Ministries/Departments in implementing the decisions. It has since been reconstituted on 21.08.2009. Core Group on Administrative Reforms under the Chairmanship of Cabinet Secretary has finished examination of all the 15 reports.

This Group of Ministers has so far considered eleven reports, namely (i) Right to Information; Master Key to Good Governance (First report), (ii) Unlocking human capital; Entitlements and Governance - a Case Study relating to NREGA (Second Report), (iii) Crisis Management; From Despair to Hope (Third report), (iv) Ethics in Governance (Fourth Report), (v) Local Governance (Sixth Report), (vi) Capacity Building for Conflict Resolution (Seventh Report) (vii) Citizen Centric Administration - The Heart of Governance (Twelfth Report) (viii) Social Capital -A Shared Destiny (Ninth Report) and (ix) Organisational Structure of Government of India (Thirteenth Report) (x) Promoting e-Governance - The Smart Way Forward (Eleventh Report) and (xi) State and District Administration (Fifteenth Report). The decisions of GoM on these reports are at various stages of implementation. The report on "Combating Terrorism (Eighth Report)" has been handled by the Ministry of Home Affairs. Thus, in all 12 Reports have been considered, so far. Remaining 3 Reports i.e. Public Order-Justice for each; Refurbishing of Personnel Administration - Scaling New Heights and Strengthening Financial Management System are also shortly being put up for consideration of GoM.

Out of total 1215 recommendations in the above eleven reports, 978 recommendations have been accepted, 191 not accepted, 5 deferred and 18 referred to other fora. Action has been taken on 435 recommendations and action on 543 recommendations is under implementation. Action on 23 recommendations is being taken by Ministry of Home Affairs.

PUBLIC GRIEVANCES

The Department has developed a SEVOTTAM framework for bench marking service delivery standards by the Government of India Ministries/Departments. The main objective of the project is to set standards in consultation with user group and include these standards in the Citizen's Charter. The framework is aimed at bringing about excellence in service delivery in Government of India organizations and is to be implemented in all Central Ministries / Departments. The Sevottam framework was studied by the Second Administrative Reforms Commission which was of the view that this model is a step in right direction. The Commission also recommended that the Union and State Governments should make the 'Seven Step Model' recommended by it as mandatory for all organizations having public interface.

The Department has also developed and implemented a web-based Centralized public Grievances Redress and Monitoring System (CPGRAMS). Initiated in June 2007, the System was established in June 2008. The System covers all Ministries / Departments of Government of India. Through it, a citizen may lodge a grievance from any internet facility across the country or the world. Ministries /Departments

that actually redress the grievances can access the grievances and take action. The citizens also have a facility to view the progress of their grievance and send reminders directly to the Ministry concerned. A unique registration number is generated through which citizen can track the status of his/her grievance.

e-GOVERNANCE

Under e-Governance, the Department is implementing e-Office, one of the Mission Mode Projects (MMP) under National e-Governance Plan (NeGP) of Government of India. The e-Office aims at significantly improving the operational efficiency of Central Government Ministries and Department through improvement in workflow mechanisms and associated office procedure manual. e-Office, as an e-Governance initiative, would be crucial in pushing GPR (Government) which eventually impacts quality of services delivered to the citizens.

The Department also organizes an annual Conference on e-Governance in collaboration with one of the State governments. The Conference offers a useful mechanism to improve cooperation amongst different levels of Government-local, state or national and across programmes - whether mission mode projects or national flagship programmes as well as vertical and horizontal co-ordination between public bodies as well as external agencies for interaction amongst all stakeholders involved. This year the 13th National Conference on e-Governance based on the theme "e-Governance from Citizens perspective" was held in Jaipur on 18-19 February, 2010.

INTERNATIONAL EXCHANGE

The Department of Administrative Reforms & Public Grievances also works as the nodal point in respect of matters relating to international cooperation in the field of civil service, personnel management and public administration concerning the Ministry of Personnel, PG and Pensions as a whole, which includes organizing programmes and visits of the foreign delegations in India and visit of Indian delegation abroad as part of project/bilateral measures taken up in accordance with the Memorandum of understandings MOUs/ Agreements signed between India and other countries (bilateral or multilateral), viz., China, Malayasia, Brazil and South Africa and in respect of the cooperation with other international organizations of which the Ministry of Personnel, Public Grievances and Pensions is an institutional member.

A Plan Scheme on "International Cooperation", in the field of Administrative Reforms, as a component of the "Pilot Projects on AR" was started in 2007-08 as an appropriate measure to meet the expenses in execution of the programme of action under the MOU signed with participating countries and international organisations.

At present, there are four countries, with whom MOUs have been signed; China, Malaysia (bilateral) South Africa (bilateral as well as trilateral; ie., IBSA) and Brazil (under IBSA). This involves exchange of visits and undertaking programmes / projects and activities under the existing MoUs.

The Ministry of Personnel, Public Grievances and Pensions (Department Administrative Reforms and Public Grievances) is an institutional member of the International Institute of Administrative Sciences (IIAS) since 1998. The membership enables the Government of India in getting information on the latest development in the field of public administration through participation in international meetings

and seminars organized by the IIAS as well as through various journals, documents and study reports prepared/issued by them.

The Ministry became an institutional member of CAPAM in 1997. The membership enables the Government of India to keep pace with the latest developments in the field of public administration, through participation in various programmes of CAPAM viz; International Innovations Awards Programmes, International Innovations Cascading Programme, international meetings, seminars and conferences organized by CAPAM, as well as through various publications, journals and study reports issued by CAPAM.

India has been participating in the CAPAM Biennial International Innovations Award Programme since its conception and has won gold medals in 1998, 2000, 2002 & 2004 and silver medals in the year 2002, 2004 and 2006. In the 6th CAPAM Awards Programme held at Barbados, 3 projects out of 27 projects submitted by GOI, were selected among the top ten finalists, out of over 150 submissions received by CAPAM from various Commonwealth countries.

Recognizing the emergence and consolidation of India-Brazil-South Africa (IBSA) Forum-(IBSA) initiatives and collaboration at regional and global level for promoting good governance and wishing to strengthen South-South cooperation, the three countries acknowledge that joint efforts and collaboration will position them as active players in helping to direct the Public Administration and Governance towards democratic values and social inclusion. The Prime Minister of India, the President of Brazil and the President of South Africa met in Brasilia (Brazil) on September 13, 2006 for the 1st Summit meeting of the India-Brazil-South Africa dialogue forum. Also desiring to promote trilateral exchange of cooperation in the field of Public Administration and Governance between the three countries in accordance with their respective national legislation on the basis of equality and mutual benefit, India, Brazil and South Africa agreed to enter into an MOU. Pursuant to the IBSA Summit decision as contained in the Joint Declaration issued on the occasion, an IBSA Working Group on Public Administration (WGPA) has been set up. It has since held five meetings and adopted the area of cooperation as (i) Integrated monitoring and evaluation, (ii) e-governance, (iii) Human Resource Development, (iv) Citizen oriented service delivery, (v) Anti-corruption and ethics and (vi) Accountability and Transparency.

The IBSA WGPA meeting was held on 4-5 May, 2009 in New Delhi to formulate and adopt an IBSA Work-Plan 2009, based on the Concept Papers prepared on the identified areas/ Projects agreed in the last meeting. Based on the decisions taken in the meeting, the deliverables proposed to Ministry of External Affairs, for consideration of IBSA Focal Points meeting/Trilateral Commission meeting are (i) e-governance, (ii) Public Administration, (iii) Virtual Centre of Excellence in Public Administration and (iv) Seminar on "Capacity Building for Effective Service Delivery".

A Memorandum of Understanding on cooperation in the field of civil service, personnel management and Public Administration between Government of India, represented by the Ministry of Personnel, Public Service Department, was signed in May, 2001. To facilitate implementation of the MoU across various spheres of interest identified for exchange and cooperation, a Joint Working Group on Civil Service (JWGCS), which is an inter-governmental machinery of India and Malaysia, has been constituted. The next meeting of India Malaysia JWGCS is expected to take place in Kuala Lumpur in 2010.

A Memorandum of Understanding on cooperation in the field of Civil Services, Personnel Management and Public administration was entered into in 1992 between the Ministry of Personnel, Public Grievances and Pensions of the Government of India and the Ministry of Personnel of the People's Republic of China (PRC). The Ministry of Personnel of the People's Republic of China, the nodal agency for implementation of the MoU, has been restructured following its merger with the Ministry of Labour and Social Security, leading to formation of a new Ministry known as the Ministry of Human Resources and Social Security. As a result, a fresh MoU in the field of Civil Services, Personnel Management and Public administration is required to be signed between the two countries, as per the regulations of the Chinese State of Council (Cabinet).

DOCUMENTATION AND DISSEMINATION

The Department has the mandate to identify, incubate, document and disseminate the best practices. To achieve its mandate the Department has granted financial assistance for professional documentation of 39 good governance's initiatives of 16 different States/UTs. Three series of Regional Conferences on Fostering Good Governance and Improving Public Service Delivery were organized. Eleven such conferences were held in different States of the country during the financial year of 2006-07, 2007-08 and 2009-10. Twenty eight documentary films on the best practices have been produced to promote these practices.

This Department is engaged in organizing lecture series / presentations etc, of best practices across the country. These are immensely useful for the administrators and the dissemination of success stories would facilitate replication of the same elsewhere also. The Department has published a series of books on the subject. These are - Ideas that have Worked. Learn from Them, Splendour in the Grass, Roofless Towers, Management by Listening and In Search of Light.

Under the World Bank Project 'Capacity Building for Poverty Reduction', the Department had taken up an initiative to design and develop a web based repository of good governance initiatives and best practices. The GKC encompasses web based Digital Repository as also a support team comprising domain experts, resource persons, analysts along with technical professionals who continuously ensure dynamic updation of Knowledge Resources and Case Studies relevant to the profile of users visiting the repository. GKC Portal can be assessed on www.indiagovernance.gov.in.

The Department has initiated a project 'Modeling Best Practices' under DFID assisted programme on Capacity Building for Poverty Reduction. The objective of the project is (i) to identify, incubate document, analyze and customize the best practices for actual implementation in other States and (ii) proactively replicate select best practices on pilot basis in the willing states by developing states by developing a Model. Deloitte Touche Tohmatsu India Private Ltd. was selected to perform this job. Three Models have been prepared and are ready for replication namely, Jan Seva Kendra (Gujarat). Activity Based Learning (Tamil Nadu) and Radical Improvement in Delhi Education (NCT Delhi).

The Department also brings out two regular publications namely '*Management in Government*' A Quarterly Journal and Civil Services News - A monthly newsletter. The focus of journal is on application of management techniques to practical situations of public administration as well as on conceptualization of principles of

good management based upon experience of live situations. The main objective of newsletters is to act as an effective medium for transmission of information to civil servants on the latest developments taking place at the Centre with regard to personnel management, pensions, administrative reforms and public grievances and other matters of interest to the civil servants.

RIGHT TO INFORMATION

The Right to Information Act, 2005 has been enacted with a view to empower the citizens, promote transparency and accountability in the working of the Government, contain corruption, and make the democracy work for people in real sense. The Act aims at creating an informed citizenry which would be better equipped to keep necessary vigil on the instruments of governance and make the government more accountable to the governed.

The Act gives all the citizens the right to seek information held by any authority or body or institution of self government established or constituted by or under the Constitution; or by any other law made by the Parliament or a State Legislature; or by notification issued or order made by the Central Government or a State Government. Bodies owned, controlled or substantially financed by the Central Government or a State Government and non-Government organisations substantially financed by the Central Government or a State Government also fall within the definition of public authority. The financing of the body or the NGO by the Government may be direct or indirect. The right includes inspection or work, documents and records; taking notes, extracts or certified copies of documents or records; Taking certified samples of material held by the public authority or held under the control of the public authority. It also includes information relating to any private body which can be accessed by the public authority under any law for the time being in force. There are some categories of information which each public authority is required to publish suo moto. The Act has created a practical regime through which the citizens of the country may have access to information under the control of public authorities referred to above.

The procedure for seeking information under the Act is very simple. Whoever wants any information from any office of the Government has to simply make a request to the Public Information Officer of the office. The request has to merely indicate the information sought and the address at which the information is required. The request can be sent either by post or submitted in person. It can be made in Hindi or English or in the official language of the area and can also be sent through e-mail. If the applicant does not get the information within 30 days or the applicant is not satisfied with the reply given to him, he can make an appeal within 30 days to the appellate authority appointed by the authority who is an officer superior to the Public Information Officer. The appellate authority has to decide the appeal within 30 days of the receipt of appeal. If the applicant is not satisfied even with the decision of the appellate authority, he can file a second appeal with the Central Information Commission or the State Information Commission, as the case may be within 90 days. The Central Information Commission entertains appeals in respect of offices, financial institutions, public sector undertakings, etc. under the Central Government and the Union Territories and a State Information Commission deals with the appeals pertaining to offices, financial institutions, public sector undertakings, etc. under the concerned State Government.

The Central Information Commission/State Information Commissions are high-powered independent bodies created by the Act. These Commissions have authority to impose penalty on the defaulting Public Information Officers.

The law is very comprehensive and covers almost all levels of governance and has the widest possible reach. It is applicable not only to Union, State and Local Governments but also to the recipients of government grants. Access to information under this Act is extensive with minimum exemptions.

The Right to Information Act has converted the prevailing culture of secrecy into culture of openness and transparency in the working of the Government. It will go a long way in strengthening our democratic institutions, empowering the public, removing corruption and greater involvement of citizens in the development of the nation.

OFFICIAL LANGUAGE - CONSTITUTIONAL/STATUTORY PROVISIONS

Article 343 (1) of the Constitution provides that Hindi in Devanagari script shall be the Official Language of the Union, Article 343 (2) also provided for continuing the use of English in official work of the Union for a period of 15 years (i.e., up to 25 January 1965) from the date of commencement of the Constitution, Article 343 (3) empowered the parliament to provide by law for continued use of English for official purposes even after 25 January 1965. Accordingly, section 3 (2) of the Official Language Act, 1963 (amended in 1967) provides for continuing the use of English in official work even after 25 January 1965. The Act also lays down that both Hindi and English shall compulsorily be used for certain specified purpose such as Resolutions, General Orders, Rules, Notifications, Administrative and other Reports, Press Communiques; Administrative and other Reports and Official Papers to be laid before a House or the Houses of Parliament; Contracts, Agreements, Licences, Permits, Tender Notices and forms of Tender, etc.

In 1976, Official Language Rules were framed under the provisions of section 8 (1) of the Official Languages Act, 1963. Its salient features are as under:

- i. They apply to all Central Government Offices, including any office of a Commission, Committee or Tribunal appointed by the Central Government and Corporation or Company owned or controlled by it;
- ii. Communications from a Central Government Office to State/Union Territories or to any person in Region "A" comprising the States of Uttar Pradesh, Uttarakhand, Himachal Pradesh, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Rajasthan, Haryana and UTs of Andaman and Nicobar Islands and Delhi, shall be in Hindi;
- iii) Communications from a Central Government Office to States/UTs in Region 'B' comprising the State of Punjab, Gujarat, Maharashtra and the Union Territory of Chandigarh, shall ordinarily be in Hindi. However, communication to any person in Region "B" may be either in English or Hindi.
- iv. Communications from a Central Government Office to a State Government Office in region 'C' comprising all other States and UTs not included in region 'A' & 'B' or to any office (note being a Central Government Office) or persons shall be in English;
- v. Communications between Central Government Offices and from Central Government Offices to the Offices of the State Government/Union Territories

and individuals, etc., will be in Hindi in such proportions as may be determined from time to time;

- vi. All Manuals, Codes and other Procedural literature relating to Central Government Offices are required to be prepared both in Hindi and English, All Forms, Headings of Registers, name Plates, Notice Boards and various items of stationery, etc., are also required to be in Hindi and English;
- vii. It shall be the responsibility of the officer signing the documents specified in section 3 (3) of the Act to ensure that these are issued both in Hindi and English.
- viii. Shall be the responsibility of the administrative head of each Central Government Office to ensure that the provisions of the Act, the Rules and directions issued under Sub-Rule-2 are properly complied with and to devise suitable and effective check points for this purposes.

POLICY

In compliance with the Official Language Resolution, 1968, an Annual Programme is prepared by the Department of Official Language in which targets are set for the offices of the Central Government with regard to originating correspondence, telegrams, telex, etc., in Hindi. A Quarterly Progress Report is called for from the offices of the Central Government regarding achievements vis-a-vis the said targets. An Annual Assessment Report is prepared on the basis of the Quarterly Progress Reports, which is laid on the Tables of both Houses of the Parliament and copies endorsed to State Government and the Ministries/Departments of the Central Government.

Eight Regional Implementation Offices have been established at Bangalore, Cochin, Mumbai, Kolkata, Guwahati, Bhopal, Delhi and Ghaziabad to monitor the implementation of Official Language Policy of the Union.

COMMITTEES/SAMITIS

A Committee of Parliament on Official Language was constituted in 1976 under section 4 of the Official Languages Act, 1963 to periodically review the progress in the use of Hindi as the Official Language of the Union and to submit a report to the President. The Committee consists of 20 Members of the Lok Sabha and 10 of the Rajya Sabha. The Committee have decided to submit its report in parts. It has so far submitted to the President eight parts of its report. The Presidential Orders on the parts of its report have been issued and work is in progress on the eighth part.

The Kendriya Hindi Samiti was constituted in the year 1967. It is chaired by the Prime Minister. It is the apex policy making body which lays down the guidelines for the propagation and progressive use of Hindi as Official Language of the Union. Under the directions of the Kendriya Hindi Samiti, Hindi Salahakar Samitis have been constituted in 57 Ministries/departments under the chairmanship of the Ministers concerned. These Samitis periodically review the progress in the use of Hindi in their respective Ministries/ Departments and the offices/ Undertakings and suggest measures to promote the use of Hindi.

Besides, the Central Official Language Implementation committee (Headed by Secretary, Department as ex-office members) reviews the status of use of Hindi for official purposes of the Union, training of its employees in Hindi and implementation of instructions issued from time to time by the Department of Official Language and suggests measure for removing the shortcomings and difficulties noticed in implementing these instructions.

Town Official Languages Implementation Committees are constituted in different towns having ten or more Central Government offices etc. to review the progress made in the use of Hindi in their member offices and exchange experiences. So far 268 Out of this, 26 are in nationalised banks, 12 in Public Sector undertaking and remaining in the officers of the Central Government. Town Official Language Implementation Committees have been constituted all over the country.

AWARD SCHEMES

The Indira Gandhi Rajbhasha Awards Schemes has been in operation since 1986-87. Shields are given every year to Ministries/Departments, Banks and Financial Institutions, Public Sector Undertaking and Town Official Language Implementation Committees for outstanding achievements in the implementation of the official language Policy of the Union. Cash awards are given to the working/retired employees of the Central Government, Banks, Financial Institutions, Universities, Training Institutions and Autonomous Bodies of the Central Government for writing original books in Hindi.

The National Awards Scheme for Original Book writing on Gyan-Vigyan has been renamed as Rajiv Gandhi National Awards Scheme for Original Book Writing in Hindi for promoting writing of books in Hindi on all branches of modern Science/Technology and contemporary subjects. This Scheme is open to all citizens of India.

At Regional level, Regional Official Language Awards are given each year to the Regional/Subordinate Offices, Public Sector Undertakings, Town Official Language Implementation Committees, Banks and Financial Institutions of the Central Government for outstanding achievements in implementing the Official Language Policy of the Union and accelerating the progressive use of Hindi.

ADMINISTRATIVE TRIBUNAL

Administrative Tribunals in the country were set up in the Year 1985 under the Administrative Tribunals Act 1985. The Administrative Tribunals Act owes its origin to Article 323-A of the Constitution which empowers Central Government to set-up by an Act of Parliament, Administrative Tribunals for adjudication of disputes and complaints with respect to recruitment and conditions of service of persons appointed to the public service and posts in connection with the affairs of the Union and the States. In pursuance of the provisions contained in the Administrative Tribunals Act, 1985 the Administrative Tribunals set up under it, exercise original jurisdiction in respect of service matters of employees covered by it.

The Administrative Tribunals exercise jurisdiction only in relation to the service matters of the litigants covered by the Act. The procedural simplicity of the Act can be appreciated from the fact that the aggrieved persons can also appear before it personally. The Government can present its case through its departmental officers or legal practitioners. Thus, the objective of the Tribunal is to provide for speedy and inexpensive justice to the litigants.

The Act provides for establishment of the Central Administrative Tribunal (CAT) and the State Administrative Tribunals. The CAT was set-up on 1 November, 1985. Today, it has 17 regular benches, 15 of which operate at the principal seats of High Courts and the remaining two at Jaipur and Lucknow. These Benches also hold circuit sittings at the other seats of High Courts. Earlier the Tribunal consisted of a Chairman, Vice Chairman and Members. With the amendment in Administrative

Tribunal Act, 1985 in 2006 the Members have been given the status of judges of High Courts. The Members are drawn both from judicial as well as administrative streams so as to give the Tribunal the benefit of expertise both in legal and administrative spheres. As a result of the judgement dated 18 March, 1997 of the Supreme Court, the appeals against the orders of an Administrative Tribunal shall lie before the Division Bench of the concerned High Court.

INTER-STATE COUNCIL

In a federal polity, in view of large areas of common interest and Shared action between the constituent units, coordination of policies and their implementation is extremely important. Article 263 of the Constitution envisages establishment of an institutional mechanism to facilitate coordination of policies and their implementation between the Union and the State Governments.

In pursuance of the recommendation made by the Sarkaria Commission on Centre-State Relations, the Inter-State Council was set up in the year 1990 through a Presidential Order dated 28 May 1990.

The Inter-State Council is a recommendatory body and has been assigned the duties of investigating and discussing such subjects, in which some or all of the States or the Union and one or more of the States have a common interest, for better coordination of policy and action with respect to that subject. It also deliberates upon such other matters of general interests to the States as may be referred by the Chairman to the Council.

Prime Minister is the Chairman of the Council. Chief Ministers of all the States and Union Territories having Legislative Assemblies, Administrators of Union Territories not having Legislative Assemblies, Governors of States under President's rule and six Ministers of Cabinet rank in the Union Council of Ministers, nominated by the Chairman of the Council, are members of the Council, Five Ministers of Cabinet rank nominated by the Chairman of the Council are permanent invites to the Council. The Inter-State Council has recently been reconstituted.

The meetings of the Council are held in camera, and all questions, which come up for consideration of the Council in a meeting, are decided by consensus, and the decision of the Chairman as to the consensus is final. The Council has not been assigned the duty envisaged in clause (a) of Article 263 of the Constitution namely, inquiring into and advising upon disputes, which may have arisen between States.

The Standing Committee of the Inter-State Council was first constituted in the year 1996 for continuous consultation and processing of matters for the consideration of the Council. Hon'ble Home Minister is the Chairman of the Standing Committee, and has five Union Cabinet Ministers and nine Chief ministers as members. The Standing Committee has since been reconstituted.

The Inter-State Council has also considered other public policy and governance issues; these are:

- (a) Contract Labour and Contract Appointments;
- (b) Blue Print of an Action Plan on Good Governance;
- (c) Disaster Mangement - Preparedness of States to cope with disasters;
- (d) Atrocities on Scheduled Castes and Scheduled Tribes and Status of Implementation of the Scheduled Castes/Scheduled Tribes (prevention of Atrocities) Act, 1989.

The Inter-State Council is assisted by a secretariat, which is headed by a Secretary to the Government of India. He is assisted by two Additional Secretaries of the Government of India and other officers. The Inter-State Council Secretariat Closely monitors the implementation of the recommendations made by the Inter-State Council, and places the Action Taken Report before the Standing Committee/Council for consideration.

The Inter-State Council Secretariat had entered into a Framework Agreement with the Forum of Federations, Canada in the year 2005 for an international partnership with the Forum in improving governance and enhancing democracy by promoting dialogue on the practices, principles and possibilities of federalism. This agreement has been renewed for the next three years-2008 to 2011.

In the year 2007, the Council Secretariat had in collaboration with the Forum of Federations, Canada had organized in New Delhi the Fourth International Conference on Federalism. The proceedings of this international conference have been published in five volumes, namely 'Building on and accommodating diversities'. 'Emerging issues in fiscal federalism'. 'Interaction in federal systems'. 'Local government in federal systems' and 'Policy issues in federalism' international perspectives'.

The Inter-State Council Secretariat has also provided A Secretarial support to the Commission on Centre-State Relations, which was constituted in the year 2007 under the Chairmanship of Justice (retd.) Madan Mohan Punchhi, former Chief Justice of Supreme Court of India. The Commission on Centre-State Relations has since submitted its Report to the Union Government. The Inter-State Council Secretariat has been entrusted the task of examining the recommendations made by the Commission in consultation with the stake holders Union and the State Governments.

The Inter-State Council Secretariat is also providing secretariat support services to the Committee for consultations on the situations in Andhra Pradesh, which has been set up by the Union Government in February, 2010 under the Chairmanship of Shri Justice B.N. Srikrishna, retired Judge of Supreme Court of India, to hold wide ranging consultations with all sections of the people and all political parties and groups in Andhra Pradesh.

THE STATES

The system of government in States closely resembles that of the Union.

EXECUTIVE

GOVERNOR

State executive consists of Governor and Council of Ministers with Chief Minister as its head. The Governor of a State is appointed by the President for a term of five years and holds office during his pleasure. Only Indian citizens above 35 years of age are eligible for appointment to this office. Executive power of the State is vested in Governor.

Council of Ministers with Chief Minister as head, aids and advises Governor in exercise of his functions except in so far as he is by or under the Constitution required to exercise his functions or any of them in his discretion. In respect of Nagaland, Governor has special responsibility under Article 371 A of the Constitution with respect to law and order and even though it is necessary for him to consult Council of Ministers in matters relating to law and order, he can exercise his individual judgement as to the action to be taken.

Similarly, in respect of Arunachal Pradesh, Governor has special responsibility under Article 371H of the Constitution with respect to law and order and in discharge of his functions in relation thereto. Governor shall, after consulting Council of Ministers, exercise his individual judgement as to the action to be taken. These are, however, temporary provisions if President, on receipt of a report from Governor or otherwise is satisfied that it is no longer necessary for Governor to have special responsibility with respect to law and order, he may so direct by an order.

Likewise, in the Sixth Schedule which applies to tribal areas of Assam, Meghalaya, Tripura and Mizoram as specified in para 20 of that Schedule, discretionary powers are given to Governor in matters relating to sharing of royalties between district council and state government. Sixth Schedule vests additional discretionary powers in Governors of Mizoram and Tripura in almost all their functions (except approving regulations for levy of taxes and money lending by non-tribals by district councils) since December 1998. In Sikkim, Governor has been given special responsibility for peace and social and economic advancement of different sections of population.

All Governors while discharging such constitutional functions as appointment of Chief Minister of a State or sending a report to President about failure of constitutional machinery in a State or in respect of matters relating to assent to a Bill passed by legislature, exercise their own judgement.

COUNCIL OF MINISTERS

The Chief Minister is appointed by the Governor who also appoints other ministers on the advice of the Chief Minister. The Council of Ministers is collectively responsible to legislative assembly of the State.

LEGISLATURE

For every state, there is a legislature which consists of Governor and one House or, two Houses as the case may be. In Bihar, Jammu and Kashmir, Karnataka, Maharashtra and Uttar Pradesh, there are two Houses known as legislative council and legislative assembly. In the remaining states, there is only one House known as legislative assembly. Parliament may, by law, provide for abolition of an existing legislative council or for creation of one where it does not exist, if proposal is supported by a resolution of the legislative assembly concerned.

LEGISLATIVE COUNCIL

Legislative Council (*Vidhan Parishad*) of a state comprises not more than one-third of total number of members in legislative assembly of the state and in no case less than 40 members (Legislative Council of Jammu and Kashmir has 36 members vide Section 50 of the Constitution of Jammu and Kashmir). About one-third of members of the council are elected by members of legislative assembly from amongst persons who are not its members, one-third by electorates consisting of members of municipalities, district boards and other local authorities in the state, one-twelfth by electorate consisting of persons who have been, for at least three years, engaged in teaching in educational institutions within the state not lower in standard than secondary school and a further one-twelfth by registered graduates of more than three years standing. Remaining members are nominated by Governor from among those who have distinguished themselves in literature, science, art, cooperative movement and social service. Legislative councils are not subject to dissolution but one-third of their members retire every second year.

LEGISLATIVE ASSEMBLY

Legislative Assembly (*Vidhan Sabha*) of a state consists of not more than 500 and not less than 60 members (Legislative Assembly of Sikkim has 32 members vide Article 371F of the Constitution) chosen by direct election from territorial constituencies in the state. Demarcation of territorial constituencies is to be done in such a manner that the ratio between population of each constituency and number of seats allotted to it, as far as practicable, is the same throughout the state. Term of an assembly is five years unless it is dissolved earlier.

POWERS AND FUNCTIONS

State legislature has exclusive powers over subjects enumerated in List II of the Seventh Schedule of the Constitution and concurrent powers over those enumerated in List III. Financial powers of legislature include authorisation of all expenditure, taxation and borrowing by the state government. Legislative assembly alone has power to originate money bills. Legislative council can make only recommendations in respect of changes it considers necessary within a period of fourteen days of the receipt of money bills from Assembly. Assembly can accept or reject these recommendations.

RESERVATION OF BILLS

The Governor of a state may reserve any Bill for the consideration of the President. Bills relating to subjects like compulsory acquisition of property, measures affecting powers and position of High Courts and imposition of taxes on storage, distribution and sale of water or electricity in inter-state river or river valley development projects should necessarily be so reserved. No Bills seeking to impose restrictions on inter-state trade can be introduced in a state legislature without previous sanction of the President.

CONTROL OVER EXECUTIVE

State legislatures, apart from exercising the usual power of financial control, use all normal parliamentary devices like questions, discussions, debates, adjournments and no-confidence motions and resolutions to keep a watch over day-to-day work of the executive. They also have their committees on estimates and public accounts to ensure that grants sanctioned by legislature are properly utilised.

UNION TERRITORIES

Union Territories are administrated by the President acting to such extent, as he thinks fit, through an Administrator appointed by him. Administrators of Andaman and Nicobar Islands, Delhi and Pondicherry are designated as Lieutenant Governors. The Governor of Punjab is concurrently the Administrator of Chandigarh. The Administrator of Dadra and Nagar Haveli is concurrently the Administrator of Daman and Diu. Lakshadweep has a separate Administrator.

The National Capital Territory of Delhi and Union Territory of Pondicherry each has a legislative assembly and council of ministers. Legislative assembly of Union Territory of Pondicherry may make laws with respect to matters enumerated in List II or List III in the Seventh Schedule of the Constitution in so far as these matters are applicable in relation to the Union Territory. The legislative assembly of National Capital Territory of Delhi has also these powers with the exceptions that Entries 1, 2 and 18 of the List II are not within the legislative competence of the legislative assembly. Certain categories of Bills, however, require the prior approval of the Central Government for introduction in the legislative assembly. Some Bills, passed by the legislative assembly of the Union Territory of Pondicherry and National

Capital Territory of Delhi are required to be reserved for consideration and assent of the President.

LOCAL GOVERNMENT

MUNICIPALITIES

Municipal bodies have a long history in India. The first such Municipal Corporation was set-up in the former Presidency Town of Madras in 1688; and was followed by similar corporations in the then Bombay and Calcutta in 1726. The Constitution of India has made detailed provisions for ensuring protection of democracy in Parliament and in the state legislatures. However, Constitution did not make the local self-government in urban areas a clear-cut constitutional obligation. While the Directive Principles of State Policy refer to village *Panchayats*, there is no specific reference to Municipalities except the implicit in Entry 5 of the State List, which places the subject of local self-governments as a responsibility of the states.

In order to provide for a common framework for urban local bodies and help to strengthen the functioning of the bodies as effective democratic units of self-government, Parliament enacted the Constitution (74th Amendment) Act, 1992 (known as Nagarpalika Act) relating to municipalities in 1992. The Act received the assent of the President on 20 April 1993. The Government of India notified 1 June 1993 as the date from which the said Act came into force. A new part IX-A relating to the Municipalities has been incorporated in the Constitution to provide for among other things, constitution of three types of Municipalities, i.e., *Nagar Panchayats* for areas in transition from a rural area to urban area, Municipal Councils for smaller urban areas and Municipal Corporation for large urban areas, fixed duration of municipalities, appointment of state election commission, appointment of state finance commission and constitution of metropolitan and district planning committees. All State/UT Administrations have set-up their state election commissions and Finance Commissions.

PANCHAYATS

Article 40 of the Constitution which enshrines one of the Directive Principles of State Policy lays down that the State shall take steps to organise village *panchayats* and endow them with such powers and, authority as may be necessary to enable them to function as units of self-government.

In the light of the above a new Part IX relating to the Panchayats has been inserted in the Constitution to provide for among other things, *Gram Sabha* in a village or group of villages; constitution of Panchayats at village and other level or levels; direct elections to all seats in Panchayats at the village and intermediate level, if any, and to the offices of Chairpersons of Panchayats at such levels; reservation of seats for the Scheduled Castes and Scheduled Tribes in proportion to their population for membership of Panchayats and office of Chairpersons in Panchayats at each level; reservation of not less than one-third of the seats for women; fixing tenure of five years for Panchayats and holding elections within a period of six months in the event of supersession of any Panchayat.

ELECTION COMMISSION

India is a Socialist, Secular, Democratic Republic and the largest democracy in the World. The modern Indian nation state came into existence on 15th of August 1947.

Since then free and fair elections have been held at regular intervals as per the principles enshrined in the Constitution, Electoral Laws and System. The Constitution of India has vested in the Election Commission of India the superintendence, direction and control of the entire process for conduct of elections to Parliament and Legislature of every State and to the offices of President and Vice-President of India.

Election Commission of India is a permanent Constitution Body. The Election Commission was established in accordance with the Constitution on 25 January 1950. The Commission celebrated its Golden Jubilee in 2001.

Originally the commission had only a Chief Election Commissioner. It currently consists of Chief Election Commissioner and two Election Commissioners. For the first time two additional Commissioners were appointed on 16 October 1989 but they had a very short tenure till 1 January 1990. Later, on 1 October 1993 two additional Election Commissioners were appointed. The concept of multi-member Commission has been in operation since then, with decision making power by majority vote.

The President appoints Chief Election Commissioner and Election Commissioners. They have tenure of six years, or up to the age of 65 years, whichever is earlier. They enjoy the same status and receive salary and perks as available to Judges of the Supreme Court of India. The Chief Election Commissioner can be removed from office only through impeachment by Parliament.

The Commission transacts its business by holding regular meetings and also by circulation of papers. All Election Commissioners have equal say in the decision making of the Commission. The Commission, from time to time, delegates some of its executive functions to its officers in its Secretariat. The Commission has a separate Secretariat at New Delhi, consisting of about 300 officials, in a hierarchical set up. Two or three Deputy Election Commissioners who are the senior most officers in the Secretariat assist the Commission. They are generally appointed from the national civil service of the country and are selected and appointed by the Commission with tenure. Directors, Principal Secretaries, and Secretaries, Under Secretaries and Deputy Directors support the Deputy Election Commissioners in turn. There is functional and territorial distribution of work in the Commission. The work is organized in Divisions. Branches and sections; each of the last mentioned units is in charge of a Section Officer. The main functional divisions are Planning, Judicial, Administration, Information Systems, Media and Secretariat Coordination. The territorial work is distributed among separate units responsible for different Zones into which the 35 constituent States and Union Territories of the country are grouped for convenience of management.

At the state level, the election work is supervised, subject to overall superintendence, direction and control of the Commission, by the Chief Electoral Officer of the State, who is appointed by the Commission from amongst senior civil servants proposed by the concerned state Government. He is, in most of the States, a full time officer and has a small team of supporting staff.

At the district and constituency levels, the District Election Officers, Electoral Registration Officers and Returning Officers, who are assisted by a large number of junior functionaries, perform election work. They all perform their functions relating to elections in addition to their other responsibilities. During election time, however, they are available to the Commission, more or less, on a full time basis.

The givnatic task force for conducting a countrywide general election consists of nearly five million polling personnel and civil police forces. This huge election machinery is deemed to be on deputation to the Election Commission and is subject to its control, superintendence and discipline during the election period, extending over a period of one and half to two months.

In the performance of its functions, Election is insulated from executive interference. It is the Commission which decides the election schedules for the conduct of elections, whether general elections or bye-elections. Again, it is the Commission which decides on the location polling stations, assignment of voters to the polling stations, location of counting centres, arrangements to be made in and around polling stations and counting centres and all allied matters.

Under the Constitution, the Commission also has advisory jurisdiction in the mater of post election disqualification of sitting members of Parliament and State Legislatures. Further, the cases of persons found guilty of corrupt practices at elections which come before the Supreme Court and High Courts are also referred to the Commission for its opinion on the question as to whether such person shall be disqualified and, if so, for what period. The opinion of the Commission in all such maters is binding on the President or, as the case may be, the Governor to whom such opinion is tendered.

The Commission has the power to disqualify a candidate who has failed to lodge an account of his election expenses within the time and in the manner prescribed by law. The Commission has also the power for removing or reducing the period of such disqualification as also other disqualification under the law.

The decisions of the Commission can be challenged in the High Court and the Supreme Court of the India by appropriate Petitions. By long standing convention and several judicial pronouncements, once the actual process of elections has started, the judiciary does not intervene in the actual conduct of the polls. Once the pollsare completed and result declared, the Commission cannot review any result on its own. This can only be reviewed through the process of an election petition, which can be filed before the High Court, in respect of elections to the Parliament and State Legislatures. In respect of elections for the offices of the president and Vice President, such petitions can only be filed before the Supreme Court.

The Commission has taken several new initiatives in the recent past. Notable among these are, a scheme for use of State owned Electronic Media for broadcast/ telecast by Political parties, checking criminalization of policies, computerization of electoral rolls, providing electors with Identity Cards, simplifying the procedure for maintenance of accounts and filling of the same by candidates and a variety of measures for strict compliance of Model Code of Conduct, for providing a level playing field to contestants during the elections. A list of Chief Election Commissioners since 1950 is given in chapter **General Information**.

TABLE 3.1 : LOK SABHA AND ITS SPEAKER(S) FROM TIME TO TIME

LOK SABHA	Date of first meeting after its constitution	Date of dissolution	SPEAKER ¹ Name	From	To
First Lok Sabha	13 May 1952	4 April 1957 ²	Ganesh Vasudev Mavalankar	15 May 1952	27 February 1956 ³
Second Lok Sabha	10 May 1957	31 March 1962 ⁴	M. Ananthasayanam Ayyangar	8 March 1956	10 May 1957
Third Lok Sabha	16 April 1962	3 March 1967 ⁵	M. Ananthasayanam Ayyangar	11 May 1957	16 April 1962
Fourth Lok Sabha	16 March 1967	27 December 1970 ⁶	Hukam Singh	17 April 1962	16 March 1967
Fifth Lok Sabha	19 March 1971	18 January 1977 ⁸	Neelam Sanjiva Reddy	17 March 1967	19 July 1969 ⁷
Sixth Lok Sabha	25 March 1977	22 August 1979 ¹⁰	Gurdial Singh Dhillon	8 August 1969	19 March 1971
Seventh Lok Sabha	21 January 1980	31 December 1984 ¹²	Bali Ram Bhagat	22 March 1971	1 December 1975 ⁹
Eighth Lok Sabha	15 January 1985	27 November 1989 ¹³	Neelam Sanjiva Reddy	5 January 1976	25 March 1977
Ninth Lok Sabha	18 December 1989	13 March 1991 ¹⁴	K.S. Hegde	26 March 1977	13 July 1977 ¹¹
Tenth Lok Sabha	9 July 1991	10 May 1996	Bal Ram Jakkhar	21 July 1977	21 January 1980
Eleventh Lok Sabha	22 May 1996	4 December 1997 ¹⁵	Bal Ram Jakkhar	22 January 1980	15 January 1985
Twelfth Lok Sabha	23 March 1998	26 April 1999 ¹⁶	Rabi Ray	16 January 1985	18 December 1989
Thirteenth Lok Sabha	20 October 1999	6 February 2004 ¹⁸	Shivraj V. Patil	19 December 1989	9 July 1991
Fourteenth Lok Sabha	2 June 2004	18 May 2009	P.A. Sangma	10 July 1991	22 May 1996
Fifteenth Lok Sabha	1 June 2009	--	G.M.C. Balayogi	23 May 1996	23 March 1998 (FN)
			G.M.C. Balayogi	24 March 1998	20 October 1999 (FN)
			Manohar Gajanan Joshi	22 October 1999	3 March 2002 ¹⁷
			Somnath Chatterjee	10 May 2002	2 June 2004
			Meira Kumar	4 June 2004	1 June 2009
				1st June 2009	till date

¹ Under Article 94 of the Constitution, in case of dissolution of the Lok Sabha, the Speaker does not vacate his office until immediately before the first meeting of the House after dissolution.

² Dissolved 38 days before expiry of its term.

TABLE 3.1 (Contd.)

3	Died.
4	Dissolved 40 days before expiry of its term.
5	Dissolved 44 days before expiry of its term.
6	Dissolved one year and 79 days before expiry of its term.
7	Resigned.
8	Term of the Lok Sabha which was to expire on 18 March 1976 was extended by one year upto 18 March 1977 by the House of the People (Extension of Duration) Act, 1976. It was extended for a further period of one year upto 18 March 1978 by the House of the People (Extension of Duration) Amendment Act, 1976. However, the House was dissolved after having been in existence for a period of five years, 10 months and six days.
9	Resigned.
10	House was dissolved after having been in existence for a period of two years, four months and 28 days.
11	Resigned.
12	Dissolved 20 days before expiry of its term.
13	Dissolved 48 days before expiry of its term.
14	Dissolved after having been in existence for a period of one year, two months and 25 days.
15	House was dissolved after having been in existence for a period of one year, six months and 13 days.
16	House was dissolved after having been in existence for a period of one year, one month and four days.
17	Died.
18	Dissolved 253 days before expiry of its term.

4 Agriculture

AGRICULTURE is the mainstay of the Indian economy. Agriculture and allied sectors contribute nearly 15.7 per cent of Gross Domestic Product (GDP), while about 59.70 per cent of the population is dependent on agriculture for their livelihood. The agricultural output, depends on monsoon as nearly 56 per cent of area sown is dependent on rainfall.

Production of foodgrains is estimated at 218.20 million tonnes in 2009-10 (As per 4th Advance estimates). This is about 16.27 million tonnes lower than the last year'. The production of rice is estimated at 89.13 million tonnes, production of wheat is estimated at 80.71 million tonnes, production of coarse cereals is estimated at 33.77 million tonnes and production of pulses is estimated at 14.59 million tonnes. The oilseeds production during 2009-10 is estimated at 249.28 lakh tonnes. The sugarcane production is estimated at 2777.50 lakh tonnes which is about 73 lakh tonnes less than the production during 2008-09. Cotton production is estimated at 239.35 lakh bales (of 170 kgs each) which is 16.59 lakh bales more than the production during 2008-09. Jute and Mesta production during 2009-10 is estimated at 112.91 lakh bales (of 180 kgs. each) which is about 9.26 lakh bales higher than the production during 2008-09.

The total area coverage under foodgrains in 2009-10 has been reported at 121.37 million ha. against 122.83 million ha. in 2008-09. The area under rice is estimated at 418.47 lakh ha. which is lower by about 37,000 ha. as compared to 2008-09. However, the area coverage under wheat during 2009-10 is estimated at 285.21 lakh ha. which is higher by 7.69 lakh ha. than the area covered under wheat during 2008-09. The total area coverage under coarse cereals during 2009-10 is estimated at 276.44 lakh ha. which is higher by 1.94 lakh ha. than the area during the last year.

The increase in Minimum Support Prices between 2007-08 to 2009-10, amongst cereals, has ranged between 10.0 per cent (wheat) to 47.3 percent (paddy common). If the bonus of Rs. 100 per quintal for paddy for 2007-08 and of ₹ 50 per quintal for 2009-10 is also considered, the increase in case of paddy (Common), comes to 34.2 per cent. In case of pulses, the increase has ranged between 10.0 per cent (masoor-Lentil) to 62.4 per cent (Moong).

RASHTRIYA KRISHI VIKAS YOJANA

Pursuant to the resolution adopted by the National Development Council (NDC), to reorient the current agricultural development strategies to meet the needs of the farmers. 4 per cent annual growth during the 11th Five Year Plan has been targeted in agricultural sector. For this objective, a new State Plan Scheme of Additional Central Assistance (ACA) for agriculture and allied sectors, the Rashtriya Krishi Vikas Yojana (RKVY) was launched during 2007-08 with an envisaged outlay of ₹ 25,000 crore for the 11th Five Year Plan.

The broad objective of RKVY is to incentivize the States to increase public investment to achieve 4 per cent growth rate in agriculture and allied sectors during the 11th Five Year Plan. The new Scheme requires the States to prepare District and State Agriculture Plans and at least maintain or increase the percentages share of

expenditure in agriculture and allied sectors in the State Plan. The ACA would be made available to the States as 100 per cent.

Each State will become eligible to receive RKVY allocation, provided the base line share of agriculture and allied sectors in its total State Plan (excluding RKVY funds) expenditure is at least maintained and District Agriculture Plans and State Agriculture Plans have been formulated. The States have been provided flexibility and autonomy in the process of selection planning, approval and execution of schemes. Since the RKVY Scheme is a State Plan Scheme being implemented by the States, the States are required to take appropriate steps for identification of Schemes for priority development under RKVY. The State Level Sanctioning Committee (SLSC) headed by the Chief Secretary approves the projects under RKVY.

The funds under the Scheme are provided to the States as 100 per cent grant by the Central Government. The distribution of the funds among the States is in two streams - Stream-1 and Stream-II. Under Stream 1, at least 75 per cent of the RKVY funds are made available for specific projects as part of the State and District Plans. Under Stream II, upto 25 per cent of the total RKVY funds to a State are made available for strengthening existing State Sector Schemes and filling the gap in resources. The funds are routed through the State Agriculture Department which is a nodal Department for implementation of RKVY.

Under the Scheme, the following broad activities have been identified for investment:-

- (a) Integrated Development of Food Crops; including coarse cereals, minor millets and pulses;
- (b) Agriculture Mechanization;
- (c) Soil Health and Productivity;
- (d) Development of Rainfed Farming Systems;
- (e) Integrated Pest Management;
- (f) Market infrastructure;
- (g) Horticulture; Animal Husbandry; Dairying and Fisheries;
- (h) Concept to Completion Projects that have definite timelines;
- (i) Support to Institutions that promote Agriculture and Horticulture;
- (m) Organic and Bio-fertilizers; and Innovative Schemes.

These activities are only indicative in nature.

The Scheme has been operationalized with effect from August, 2007 and has evoked a good response from the States during 2007-08 with 22 States approving the projects. Out of the total funds of ₹ 1263.00 crore made available during 2007-08, funds to the tune of ₹ 1247 crore were released to the States / UTs. including ₹ 48.00 crore for preparation of District Agriculture Plans @ ₹ 10.00 lakh per district. ₹ 2887 crore in 2008-09 and ₹ 376.1 crore during 2009-10 were released.

A provision of ₹ 6755 crore has been kept for 2010-11. Two new sub-schemes for Extending Green Revolution to Eastern India with specific resource allocation of ₹ 400.00 crore and Special Initiative for Oilseeds and Pulses in Dryland areas with an allocation of ₹ 300 crore have been taken up as part of RKVY during 2010-11.

MACRO MANAGEMENT OF AGRICULTURE (MMA)

Agriculture is a state subject. Primary role for increasing productivity and production of food grains is that of the State Governments. However, in order to supplement the

efforts of the State Governments, a number of Centrally Sponsored and Central Sector Schemes are being implemented.

The Macro Management of Agriculture (MMA) Scheme is Centrally Sponsored Schemes formulated with the objective to ensure that the Central assistance is spent on focused and specific interventions for development of agriculture in areas of priority of different States. It became operational in 2000-01 in all States and UTs. The Scheme provides sufficient flexibility to States to develop and pursue the programmes on the basis of their regional priorities. States have been given free hand to finalize their sector-wise allocation as per requirements of their developmental priorities. It is a major step towards achieving decentralization in pursuance of restoring primacy of States in agricultural development planning which aims at development in agriculture through Work Plans prepared by State Governments themselves.

In the year 2008-09, Macro Management of Agriculture Scheme was revised to improve its efficacy in supplementing / complementing the efforts of the States towards enhancement of agricultural production and productivity. Role of the scheme has been redefined to avoid overlapping and duplication of efforts and to make it more relevant to the present agricultural scenario in the States to achieve the basic objective of food security and to improve the livelihood system for rural masses. The Revised MMA scheme comprises 11 sub-schemes relating to crop production and natural resource management.

Some of the salient features of the Revised Macro Management of Agriculture Scheme are as follow :

- (i) The Practice of allocating funds to States/UTs on historical basis has been replaced by a new allocation criteria based on gross cropped area and area under small and marginal holdings. Assistance is provided to the States/UTs as 100 per cent grant.
- (ii) Subsidy structure has been retionalized to make the pattern of subsidy uniform under all the schemes implemented by the Department of Agriculture and Cooperation. Revised subsidy norms indicate maximum permissible limit of assistance. States may either retain the existing norms, or increase them to a reasonable level provided that the norms do not exceed the revised upper limits specified.
- (iii) Two new components have been added namely. (a) Pulses and oilseeds crop production programmes for the areas not covered under the Integrated Scheme of Oilseeds Pulses, Oil Palm and Maize (ISOPOM) and (b) "Reclamation of Acidic Soil" along with the existing component of "Reclamation of Alkali Soil."
- (iv) Permissible ceiling for new initiatives has been increased from existing 10 per cent to 20 per cent of the allocation.
- (v) Atleast 33 per cent of the funds have to be earmarked for small, marginal and women farmers.
- (vi) Active participation of the Panchayati Raj Institutions (PRIs) of all tiers would have to be ensured in the implementation of the Revised MMA scheme including review, monitoring and evaluation at district/sub-district level.

An amount of Rs. 1000.00 crore has been earmarked for 2010-11

HORTICULTURE SECTOR

Indian agriculture has made a rapid stride, converting the country from food scarce

to sufficiency. The growing population has to be fed and surplus has to be produced with declining land, water and threat of climate change.

Horticulture sector has received lot of patronage from all the stakeholders, namely public private sector and farmers alike, in the yester year. This is primarily the result of realization that diversification to horticulture crops is now the major option to improve livelihood security of small farmers, improved employment opportunities, to attain food and nutrition security, improve income through value addition and foreign exchange through exports. As a result India has now emerged as an important country as far as horticulture development is concerned.

The achievement in the development of horticulture is laudable, as the sector now contributes more than 30.5 per cent to GDP of agriculture and has maintained the growth rate of more than 5 per cent during the last two decades.

Production base of horticultural crops has increased considerably as compared to the situation of 1950-51. Area under horticulture crops has increased from 12.77 million ha in 1991-92 to 20.95 million ha in 2009-10, while the production from 96.52 million tonnes (1991-92) to 220.87 million tonnes during 2009-10. With a production of 220.87 million tonnes of horticultural produce from an area of 20.95 million ha, the horticulture is expected to play a dominant role in the overall development of agriculture in the country in the coming years. The growth rate in this sub-sector is significantly higher. Moreover, the farmers of the country are eagerly looking for avenues for diversifying their crops for which horticulture provides ample opportunity.

Over the years, there has been a significant improvement in the production of horticulture crops. Fruits and vegetables, together, constitute about 92 per cent of the total horticultural production in the country. The area under fruit crops is 6.36 million ha with a production of 71.31 million tonnes which contributes 31.75 per cent share in total production. While India is the second largest producer of fruits in the world, it the largest producer of fruits like mango, banana, papaya, sapota, pomegranate and aonla. In terms of productivity of grapes, India ranks first in the world.

Among the horticulture produce, vegetable is very important sector, which occupies 8.14 million ha with total production of 132.28 million tonnes having a productivity of 16.5 tonnes/ha. The area under vegetables in India increased from 5.59 million ha in 1991 -92 to 8.14 million ha during 2009-10. The production in this period increased from 58.53 to 132.28 million tonnes which contributes approximately 61.0 per cent share of total production.

India occupies the second position in the production of brinjal, cabbage, cauliflower and onion and third in potato and tomato in the world. Vegetables that are produced in abundance are potato, tomato, brinjal, okra, cucurbits, etc.

India has made noticeable advancement in the production of flowers, particularly cut flowers, which have a high potential for exports. Floriculture during 2009-10 covered an area of 1,70,000 ha with a production of 10.03 million tonnes of loose and 50.75 million numbers of cut flowers.

India is the largest producer, consumer and exporter of spices and spice products in the world. Over 100 plants spices are known to yield spices and spice products among which around 50 are grown in India. The spice production is 4.14 million tonnes from an area of about 2.62 million ha.

IMPORTANT INITIATIVES IN HORTICULTURE DEVELOPMENT

The development of horticulture in the country is mainly through developmental programmes of the Department of Agriculture and Cooperation. The Schemes under implementation include (i) National Horticulture Mission (NHM). (ii) Horticulture Mission for North East and Himalayan States, (iii) Micro Irrigation, (iv) National Bamboo Mission (v) Schemes of the National Horticulture Board (NHB) and (vi) Integrated Development of Coconut, including the Technology Mission on Coconut coordinated by the Coconut Development Board (CDB). Besides, a Central Institute of Horticulture (CIH) is functioning at Nagaland for providing technology and HRD support to the horticulture search in the North-Eastern States.

(i) National Horticulture Mission

National Horticulture Mission was launched during the year 2005-06 with objective of providing holistic growth to the horticulture sector through an area based, regionally differentiated strategy, supply of quality planting material, production and productivity improvement, technology promotion, extension, post harvest management and marketing.

During 2005-06 to 2009-10, under NHM, 2205 new nurseries were setup and vegetable seed was produced in 16707 ha area. An area of about 16.58 lakh ha was brought under new gardens of various horticulture crops and an area of 2.78 lakh ha under old and senile plantations was rejuvenated. An area of 1.37 lakh ha was covered under organic farming and 90919 Vermi Compost Units were set up. An area of 7.40 lakh ha was brought under Integrated Nutrient Management (INM)/Integrated Pest Management (IPM) apart from setting up of 307 IPM/INM Infrastructure viz. 66 Disease Forecasting Units. 78 Bio Control Labs. 95 Plant Health Clinics, 68 Leaf/Tissue Analysis Lab. 17884 community water harvesting bodies have been created. Under the Post Harvest Management component, 287 cold storage units, 4 CA storage, 16 refrigerated vans, 222 mobile/primary processing units were set up. 9 wholesale markets and 163 rural markets were and 92 functional infrastructures for collection, grading etc established which help in proper handling and marketing of horticulture produce. 7.50 lakh farmers have been trained under various horticulture activities.

During 2005-06 to 2008-10, an amount of Rs. 4303.12 crore was released to 18 States, 3 UTs and 13 National Level Agencies for implementation of the Scheme, against which, an expenditure of Rs. 4039.12 crore has been incurred. The outlay of Rs. 1061.98 crore has been earmarked for the year 2010-11. During 2010-11, Rs. 220.50 crore have been released to 9 State viz. Chhattisgarh, Gujarat, Haryana, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Uttar Pradesh and West Bengal. So far, an expenditure of Rs. 59.42 crore has been reported.

(ii) Horticulture Mission for North East and Himalayan States

This Mission was launched during the financial year 2001-02 to achieve overall development of horticulture in 8 States to harness the potential that exists in the North East region. The Scheme was further extended to three other hilly States namely Jammu and Kashmir, Himachal Pradesh and Uttarakhand during 2003-04. To achieve the goal and mandate of the mission, programmes were formulated under four Mini-Missions.

A significant achievement has been made for overall development of horticulture since its inception till 2009-10. An additional area of 511919 ha has been brought under cultivation of various horticulture crops including fruits (289761 ha), vegetables (97201 ha), spices (71791 ha), plantation crops (11993 ha), medicinal plants

(6429 ha), aromatic plants (10165 ha), roots and tubers (1170 ha) and flowers (27286 ha).

One thousand and three nurseries, 10979 community tanks, 12758 tube wells, 26 tissue culture units, 3,20,247 sq.m. greenhouses, 25 model floriculture centres. 26 mushroom units and 17862 vermi-compost units have been established. 2.54 lakh farmers / officers including 0.70 lakh women farmers have been trained on various aspects of horticulture. Forty seven wholesale markets, 265 rural primary markets, 66 apni mandies, 18 state grading laboratories and 64 processing units have been established.

During the years 2001-02 to 2001-10, under the Missions. ₹ 1371.20 crore to the North Eastern States and ₹ 493.12 crore to the Himalayan States (Uttarakhand, Himachal Pradesh, J and K) were released.

During the current physical year 2010-11, funds earmarked is ₹ 400 crore, of which ₹ 270 crore is for North Eastern and ₹ 130 crore for Himalayan States and an amount of ₹ 97.20 crore has been released so far with ₹ 71.87 crore to the North Eastern States and ₹ 25.32 crore to the Himalayan States.

(iii) National Bamboo Mission

The National Bamboo Mission was launched in 2006-07 as a Centrally Sponsored Scheme to promote the growth of bamboo sector. The programmes address four major areas of bamboo development namely (i) Research and Development, (ii) Plantation Development, (iii) Handicrafts Development and (iv) Marketing.

An area of 1,36, 263 ha (forest area 9,36,93 ha and non-forest area 4,25,70 ha) has been brought under bamboo plantations.

To supply quality planting material 1164 bamboo nurseries have been established under public and private sectors. For scientific management of bamboo plantations, 29850 farmers and 4667 field functionaries have been imparted training during 2006-07 to 2009-10. For extension and creations of general awareness, 34 State Level and 394 District Level Workshops have been held in different States. Three bamboo bazaars and 10 bamboo wholesale / retail markets were established for promotion of marketing of bamboo and its products.

During the year 2006-07 to 2009-10 an amount of ₹ 320 crore has released out of which ₹ 200 crore to the North East and ₹ 120 crore to another states have been released.

(iv) Micro Irrigation

The main objective of this Scheme is to increase the coverage of area under improved methods of irrigation in the country for better water use efficiency along with other benefits like fertigation, quality production, etc. and to provide stimulus to growth in the agriculture sector. During the current year, ₹ 10 crore has been earmarked for North East.

(v) Central Institute for Horticulture (CIH) Nagaland

Recognizing the importance of institutional support for the development of horticulture in the North East region, the establishment of a Central Institute of Horticulture in Nagaland, has been approved for implementation in 2005-06.

The thrust areas for the Institute are (i) refinement / demonstration of identified technologies specific for the region, (ii) production and supply of quality seed and planting material of improved/high yielding varieties and (iii) training of state

department officials and field functionaries in selected aspects of horticulture development including post harvest management, processing and value addition.

NEW INITIATIVES

New interventions have been included in the Scheme such as High Density Plantations (HDP) / Canopy Management, Horticulture Mechanization and certification of Good Agricultural Practices (GAP). Besides, the cost norms of some of the activities like setting up of nurseries, area expansion, rejuvenation programmes and protected cultivation have been revised to provide better incentives to the farmers for adopting improved technologies and cultivars. The cost norms and pattern of assistance for Post Harvest Management (PHM) have been enhanced to encourage private sector participation in building PHM infrastructure.

COOPERATION

COOPERATIVE REFORMS

The Cooperative movement in India traces its origin to the agriculture and allied sector. It was evolved as a mechanism for pooling meagre resources of the people with a view to providing them the advantages of economies of scale. After independence, the cooperatives were considered part of the strategy of planned economic development. The cooperatives are today at the crossroads of existence particularly in view of the fast emerging scenario of economic liberalization and globalization. These institutions in general suffer from resource constraint, poor governance and management, inefficiency and unviability. The cooperative reforms are, therefore, absolutely vital for future.

NATIONAL POLICY ON COOPERATIVES

The Union Government has formulated a National Policy on Cooperatives sector. The objectives of the National Policy are to facilitate all round development of the Cooperatives in the country and to work as a guide for action of the State in Cooperative. The policy envisages necessary support, encouragement and assistance. It aims to ensure that they work as autonomous, self-reliant and democratically managed institutions accountable to their members.

THE NATIONAL COOPERATIVE DEVELOPMENT CORPORATION (NCDC) AMENDMENT ACT, 2002

The National Cooperative Development Corporation (NCDC) Act, 1962 has been amended vide NCDC (Amendment) Act, 2002 expanding the mandate of NCDC to include foodstuff, industrial goods, livestock, and services in the programmes and activities in addition to the existing programmes. The definition of agriculture produce has been amended to cover wider range of activities by including edible and non-edible oilseeds, cattle feed, produce of horticulture and animal husbandry, forestry, poultry, farming, pisciculture and other activities allied to agriculture. Definition of industrial goods and livestock have been elaborated covering the products of allied industries in the rural areas and includes any handicrafts or rural crafts. The livestock includes all animals to be raised for milk, meat, fleece, skin, wool and other by-products.

National Cooperative Development Corporation (NCDC) will be able to provide loan directly to the Cooperative without State/Central Government guarantee on furnishing of security. The activities concerning water conservation, animal care/health, disease prevention, agricultural insurance and agricultural credit, rural

sanitation/drainage/sewerage, labour, tourism, hospitality and transport, electricity and power and rural housing have been made as notified services.

Constitution (one Hundred and Eleventh Amendment) Bill 2009

- Objectives -
- (i) To minimize the Government control and interference in the working of Cooperative Societies so as to give them a genuine democratic and autonomous character;
 - (ii) To ensure timely conduct of elections, general body meetings and audit of Cooperative Societies; and
 - (ii) To professionalize the management of these institutions.

After introduction in the Lok Sabha on 30.11.2009, the Constitution (One Hundred and Eleventh Amendment) Bill, 2009 has been referred to the Standing Committee on Agriculture.

Amendment to the Multi-State Co-operative Societies Act 2002

The amendment has been proposed to facilitate the implementation of the Multi-State Co-operative Societies Act, 2002 and to remove the difficulties faced in its implementation.

- Objectives -
- (i) Active member participation.
 - (ii) Use of modern tools for more efficient and transparent functioning.
 - (iii) De-politicization.
 - (iv) Enabling the business growth by providing a conducive environment.
 - (v) Strengthening and expanding the multi-State co-operative societies.

CONSTITUTION OF HIGH POWER COMMITTEE ON COOPERATIVES

Plant Protection

Plant Protection plays a significant role in achieving targets of crop production. The major thrust areas of plant protection are promotion of Integrated Pest Management, ensuring availability of safe and quality pesticides to protect crops from the ravages of pests and diseases, and administration of quarantine measures for eliminating the chances of entry of exotic pests.

Seeds

Seeds is a critical and basic input for enhancing agricultural production and productivity in different agro-climatic regions. Seed program largely adheres to the recognize three generations, namely breeder, foundation and certified seeds and provides adequate safeguards for quality assurance in the seed multiplication chain to maintain the purity of variety as it flows from the breeders to the farmers.

Indian seed programme includes the participation of Central and State governments. Indian Council of Agricultural Research (ICAR), State Agricultural Universities (SAUs) system, public sector, co-operative sector and private sector institutions. Seed sector in India consists of two national level corporations i.e. National Seeds Corporation (NSC) and State Farms Corporation of India (SFCI), State Seed Corporations (SSCs) and seed companies. For quality control and certification, there are State Seed Certification Agencies (SSCAs) and State Seed Testing Laboratories (SSTLs). The private sector has started to play a significant role in the production and

distribution of seeds. However, the organized seed sector particularly for food crops cereals continues to be dominated by the public sector.

National Seed Research and Training Centre (NSRTC)

The National Seeds Research and Training Centre (NSRTC), Varanasi (Uttar Pradesh) has been notified as a Central Seed Testing and Referral Laboratory (CSTL), with effect from 1st April, 2007. The primary objective for establishing the NSRTC is to have separate National Seed Quality Control Laboratory to serve as CSTL and a referral laboratory for courts in India and also to act as a human resource development centre in the field of seed quality. The CSTL of the NSRTC has become a member laboratory of the International Seed Testing Association (ISTA), Zurich, Switzerland with effect from 2007.

Legislative framework and policy

The Seeds Act 1966 provides for the legislative framework for regulation of quality of seeds sold in the country. The Central Seed Committee (CSC) and the Central Seed Certification Board (CSCB) are apex agencies set up under the Act to advise the Government on all matters relating to administration of the Act and quality control of seeds. In response to the changes that have taken place in the seed sector, the existing Seeds Act, 1966 is proposed to be replaced by a suitable legislation to, inter-alia:

- i) create a facilitative climate for growth of the seed industry;
- ii) enhance seed replacement rates for various crops;
- iii) boost the export of seeds and encourage import of useful germplasm;
- iv) create conducive atmosphere for application of frontier sciences in varietal development and for enhanced investment in research and development.

Approval of Cabinet has been obtained for moving the official amendment to the Seed Bill, 2004.

In order to encourage export of seeds in the interest of farmers, the procedure for export of seeds has been simplified. Seeds of various crops have been placed under Open General Licence (OGL) except the seeds of wild varieties, germplasm, breeder seeds, Berseem seed and onion seeds are on restricted list of export under the new Export and Import Policy 2009-10.

National Seed Mission

The Department proposes, to launch National Seed Mission from the year 2011-12 with an outlay of ₹ 3775 crore replacing the existing Seed Infrastructure Scheme on account of the dynamism in the seed sector and the experience gained in the Implementation of the Scheme. Planning Commission has given in-principle approval to the Mission.

Policy on the Export and Import of Seeds and Planting Materials

Exports and imports of seeds have increased with the rationalization and simplification of the export and import regime. This has benefited Indian farmers, the seed industry and entrepreneurs. Major schemes are as under:

(i) Development and Strengthening of Infrastructure Facilities for Production and Distribution of Quality Seeds

This Department has launched Central Sector Scheme namely "Development and Strengthening of Infrastructure Facilities for Production and Distribution of Quality Seeds" with an annual outlay of ₹ 500 crores. The main components of the Scheme are Quality Control Arrangement of Seeds; Transport subsidy on movement of seeds

to North-East and other hilly areas; Establishment and Maintenance of Seed Bank; Seed Village Scheme; Assistance for Creation of Infrastructure facilities; Assistance for boosting seed production in private sector; Human Resource Development; Assistance for Seed Export; Propagation of application of biotechnology in agriculture; Promotion of hybrid seeds of rice.

(ii) Scheme for Protection of Plant Varieties and Farmers Rights

Legislation for protection of plant varieties and farmers rights' was enacted in year 2001. The legislation provides for the establishment of an effective system for protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of new varieties of plants. The Central Sector Scheme for Protection of Plant Varieties and Farmers' Rights (PPV and FR) provides necessary back-up support for implementation of the legislation i.e., PPV and FR Act, 2001. The PPV and FR Authority in coordination with this Department implements the Scheme. The main objectives of the Scheme are to provide grants to the Authority for its operational cost and implementation of provision of the Act and financial assistance to DUS Centres for developing guidelines of identified crops for Distinctness, Uniformity and Stability (DUS) test. The functions of the Authority includes registration of plant varieties to protect plant breeder's rights, which would stimulate investment for research and development for the development of new plant varieties leading to agricultural development in the country, and to protect the rights of the farmers in respect of their contribution made at any time in conserving, improving and making available plant genetic resources. A total number of 28 crops have been notified for registration purposes of the Authority. The total outlay of the Scheme with 12 approved components during 11th Five Year Plan is ₹ 120 Crore.

SUPPORT TO STATE EXTENSION PROGRAMME FOR EXTENSION REFORMS.

The Scheme launched during 2005-06, aims at making extension system farmer driven and farmer accountable by way of new institutional arrangement for technology dissemination in the form of an Agricultural Technology Management Agency (ATMA) at district level to operationalize the extension reforms. ATMA have active participation of farmers/ farmer groups, NGOs, KVKs, Panchayati Raj Institutions (PRIs) and other stakeholder operating at district level and below. 591 district level ATMAs have been established. 561 State Research Extension Plans (SREPs) have been prepared, over one thirty seven lakh farmers including 40.77 lakh farm women (29 per cent) have benefited through farmers oriented extension activities and 56,133 Farmers' Interest Groups (FIGs) have been mobilized since inception of the Scheme. ₹ 619.58 crores have been released upto 30th June, 2010 under the programme since its inception.

MASS MEDIA SUPPORT TO AGRICULTURE

This scheme is focusing on two initiatives. The first is use of doordarshan infrastructure for providing agriculture related information and knowledge to the farming community. 180 Narrowcasting centres. 18 Regional Centres and one National Centre of Doordarshan Kendra telecast agricultural programme for 30 minutes for five days a week. Programmes of Regional Kendras and some Narrowcasting centres are being repeated the next day on respective Regional Satellite Channel. At national level, programme are being telecast 6 days a week from Monday to Saturday. Films covering Success Stories, Innovation by farmers are being provided by Department of Agriculture and Cooperation for the Saturday slot. Audio/Video spots on emerging issues viz. Rabi/Kharif campaign, Kisan Call Centres, Kisan Credit

Card facility and publicity campaign of National Food Security Mission (NFSM) etc, are also publicized through the programme using the Free Commercial Time (FCT) Live 'Crop Seminars' on DD involving farmers and experts have also been organized.

The other component of the mass media initiative is use of 96 FM Transmitter of AIR to broadcast area specific agricultural programmes with 30 minutes radio transmission in the evening six days a week.

KISAN CALL CENTRE (KCC)

Kisan Call Centers have been functioning since 21st January, 2004 and working in 25 different locations covering almost all the States of the country. At present 144 Call Centre Agents have been engaged in KCCs who are answering farmers' queries in 21 local dialects. All KCC locations are accessible by dialing single toll free number '1551' and '1880'-180-1551' from 6.00 A.M. to 10.00 P.M. on all 7 days a week nationwide. At each of the KCC locations the Kisan Call Centre Agents known as L-1 agents are responding to farmers queries instantly. With a view to monitor the activities of KCCs, a State Level Monitoring Committee (SLMC) comprising of Secretary (Agriculture), Director of Agriculture and other development departments, representatives of BSNL, Nodal Officer of KCC, etc has been constituted for each KCC.

With the demand of increased number of KCC locations, the scheme has been now expended to function from 25 locations. Besides, Department of Agriculture and Cooperation has also taken initiative to develop a data structure in the form of Kisan Knowledge Management System (KKMS). This will facilitate Kisan Call Centre agents to provide correct answers to the farmers queries.

In order to generate awareness among masses publicity of KCC is being carried out through SAMETIs/DAVP, States/UTs, Doordarshan / All India Radio. Since its inception till June, 2010 almost 47.19 lakh calls from farmers have been received in the Kisan Call Centres.

ESTABLISHMENT OF AGRICULTURE-CLINIC AND AGRICULTURE-BUSINESS CENTRES

Agriculture-Clinic and Agriculture-Business Centres Scheme was launched on 9.4. 2002 to provide extension services to farmers on payment basis through setting up of economically viable self-employment ventures. Selected trainees are provided agri-preneurship training for a period of two months by MANAGE through identified Nodal training Institutions in various states, who also provide handholding support for one year. NABARD monitors the credit support to Agriculture-Clinics through Commercial Banks. Provision of credit-linked back-ended subsidy @ 25 per cent of the capital cost of the project funded through bank loan as well as full interest subsidy for the first two years on the bank credit has recently been approved under the scheme. The subsidy would be 33.33 per cent in respect of candidates belonging to SC, ST, Women and other disadvantaged sections and those from North-Eastern and Hill States.

From the inception of the scheme, 21579 unemployed agriculture graduates have been trained upto March, 2010.

INFORMATION TECHNOLOGY

National e-Governance Plan in Agriculture

The Trust of The ICT initiatives is to make improved services accessible to farmers

using information and Communication Technology. The Department of Agriculture and Cooperation is preparing National e-Governance Plan in Agriculture (NeGP-A) for achieving this target. The underlying vision behind this project is to 'create a conducive environment for providing relevant information and service to the stakeholders'. The initial phase of the project was envisaged to conceptualise the key elements that need to be focused on in the Agriculture sector as a priority in order to achieve the goals of the project. The phase has been completed and prioritized list of services to be implemented is already identified in this phase. The next phase is under implementation of e-Governance in Agriculture at both Central and State levels. There are a number of current IT initiatives/Schemes undertaken or implemented by DAC which are aimed at providing information to the farmers on various activities in the agriculture value chain. These initiatives will be integrated so that farmers may be able to make proper and timely use of the information available. The informations are intended to be provided to farmers through various channel including Common Service Centres, Internet Kiosks and SMSs.

IT Apparatus in the Field Offices and Directorate of DAC

Under the DACNET Project, the Directorates/field units have already been provided basic infrastructure which has helped in achieving e-readiness. This component is basically meant for strengthening IT infrastructure through LANs websites and multimedia access both in the headquarters and field offices. A video-conferencing facility has also been setup at DAC headquarters in Krishi Bhawan.

Development of Agriculture Informatics and Communication

The objective of this component is to build a reservoir of all data related to agriculture and development of web-based applications. It includes development of various portals. NIC-DAC has also developed 80 portals, applications and websites covering both the headquarters and its field offices/directorates. A number of software development works such as farmers portal and Kisan Knowledge Management System (KKMS) are under various stages of development DACNET and SEED Net portals have already been developed. The development/enrichment of portals on various subjects of agriculture is a continuous process.

DAC is supporting e-Governance activities in the State agriculture and allied Departments through AGRISNET. Funds under AGRISNET are provided to the States/UT Governments on the basis of specific project proposals submitted by them. Services delivered under this project are States/UTs specific. So, far, funds have been released to 23 States/UTs ; Andhra Pradesh, Madhya Pradesh; Tamil Nadu, West Bengal, Uttar Pradesh, Gujarat, Karnataka, Assam, Uttarakhand, Himachal Pradesh, Meghalaya, Nagaland, Sikkim, Maharashtra, Punjab, Orissa, Mizoram, Kerala, Haryana, Rajasthan, Chhattisgarh, Puducherry and Arunachal Pradesh. AGRISNET envisages promotion of e-governance by use of ICT.

AGRICULTURAL CREDIT

The Government has taken many policy initiatives for strengthening of farm credit delivery system for providing credit at affordable rates of interest to support the resource requirements of the agricultural sector. The emphasis of these policies has been on providing timely and adequate credit support to farmers with particular focus on small and marginal farmers and weaker sections of society to enable them to adopt modern technology and improved agricultural practices for increasing agricultural production and productivity. The policy essentially lays emphasis on augmenting credit flow at the ground level through credit planning, adoption of

region specific strategies, and rationalization of lending policies and procedures and bringing down the rate of interest on farm loan.

Agricultural credit is disbursed through a Multi-Agency Network comprising of Commercial Banks (CBs), Regional Rural Banks (RRBs) and Cooperatives with their vast network (covering almost all the villages in the country) wider coverage and outreach extending to the remotest part of country. The Cooperative Credit Institutions, both in short and long-term structure are the main institutional agency for dispensation of agricultural credit. In addition, on the lines of the Business Correspondent and Business Facilitator model, Banks are using the services of Non-Governmental Organisations (NGOs); Self Help Groups (SHGs), Joint Liability Groups (JLGs) Micro Finance Institutions and other Civil Society Organisation as Intermediaries in providing financial and banking services in the rural areas.

The Government has initiated several measures to galvanize the institutional credit system to make them more responsive to the needs of farmers. Some of the important measures initiated in this regard are as under:-

- (i) To accelerate the flow of credit to agriculture and allied activities, the Government is implementing a comprehensive Farm Credit Package since June, 2004. The package inter-alia envisaged doubling of agriculture credit flow in next three years beginning from 2004-05 taking 2003-04 as base year. The credit package also envisaged to finance 50 lakh new farmers each year by Commercial Banks including RRBs and Debt Relief Measures for farmers in distress and farmers in arrears, One Time Settlement (OTS) scheme for small and marginal farmers and relief to farmers indebted to non-institutional lenders, such as money lenders.
- (ii) From Kharif 2006-07, farmers are receiving crop loans upto a principal amount of ₹ 3 lakh at 7 per cent rate of interest. In the year 2009-10, the Government provided an additional 1 per cent interest subvention to those farmers who repaid their short term crop loans as per schedule. The Government has raised this subvention for timely repayment of crop loans from one percent to two percent from the year 2010-11. Thus, the effective rate of interest for such farmers will be 5 per cent p.a. from the year 2010-11.
- (iii) The Government is implementing revival package for Short-term Rural Cooperative Credit Structure involving financial outlay of ₹ 13,569 crore, Twenty-five State Governments have signed the MoU with Gol and NABARD, viz. Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Rajasthan, Orissa, Punjab, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, and West Bengal. This covers more than 9 per cent of the STCCS Units in the country. As on March, 2010, an amount of ₹ 7972.22 crore has been released by NABARD as Gol share for recapitalization of 49764 PACS in ten states viz. Andhra Pradesh, Chhattisgarh, Gujarat, Haryana, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, Uttar Pradesh, and West Bengal, while the State Government had released ₹ 620.61 crores as their share.
- (iv) Farm Loan upto ₹ 1 lakh has been made collateral/security free.
- (v) Government has implemented the Agriculture Debt Waiver and Debt Relief Schemes, 2008 under which about 3.69 crore farmers have been benefited from the scheme involving debt waiver and Debt relief of ₹ 65,318.33 crore.
- (vi) Initiative has been taken by Ministry of Agriculture to provide Kisan Credit

Card to all the eligible and willing farmers in a time bound manner. All the States/UTs have been advised to chalk out a detailed action plan and launch campaign to provide KCC to all the eligible and willing farmers particularly the small and marginal farmers in a time bound manner. Upto February, 2010, 9.06 crore KCC have been issued.

- (vii) The Reserve Bank of India has issued detailed guidelines to the banks for undertaking relief measures by banks in areas affected by the natural calamities. The guidelines inter-alia includes restructuring of existing loans, conversion of loans, sanction of consumption loan, grant of fresh loans, etc.
- (viii) Banks have been advised to draw up a roadmap by March 2010 to provide banking services through a banking outlet in every village having a population of over 2,000 by March 2011. Such banking services may not necessarily be extended through a brick and mortar branch but can be provided through any of the various forms of ICT-based models, including through Business Correspondents (BCs).
- (ix) NABARD has issued a revised policy and operational guidelines for financing of Joint Liability Groups (JLGs) of small, marginal, tenant and oral lessee farmers as well as sharecroppers in October, 2009, NABARD will provide some incentives, to banks by way of promotional grants for forming, nurturing and financing JLGs, on an annual basis for the first three years. Grant assistance is extended to the banks for formation, nurturing and financing of JLGs over a period of three years @ ₹ 2000/JLG. NABARD provides 100 per cent refinance assistance to all banks in respect of their lending to JLGs. Banks may at their discretion, use the services of suitable agencies for undertaking the above interventions which are in the nature of activities under the Business Facilitators model, NABARD will also extend need-based promotional support training, exposure visits, experience-sharing, etc for banks staff.

REVIVAL PACKAGE FOR SHORT TERM COOPERATIVE CREDIT STRUCTURE

In pursuance of recommendations made by the Vaidyanathan Committee Task Force, the Government of India had approved a Revival Package for Short Term Cooperative Credit Structure (STCCS) which aims at making it a well manged and vibrant structure to best serve the credit needs of Rural India. Revival Package envisages an outlay of ₹ 13,597 crore for recapitalization of STCCS, capacity building and training and computerization subject to legal reforms by the State Governments. The Revival Package seeks to (a) provide financial assistance to bring the system to an acceptable level of health; (b) introduce legal and institutional reforms necessary for their democratic, self-reliant and efficient functioning; and (c) take measures to improve the quality of management as an integrated package. So far, 25 States, namely, Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Jammu and Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Rajasthan, Orissa, Punjab, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal have signed the Memorandum of Understanding (MoU) with Government of India and NABARD. These states cumulatively cover 96 per cent of the STCCS units in the country. As on March, 2010, an amount of ₹ 7972.22 crores has been released by NABARD as Gol share for recapitalisation of 49,764 PACS.

REHABILITATION PACKAGE FOR DISTRESS FARMERS

A Rehabilitation Package of ₹ 16978.69 crore for 31 suicide prone Districts in the four

States, namely, Andhra Pradesh, Maharashtra, Karnataka and Kerala is under implementation. The rehabilitation package aims at establishing a sustainable and viable farming and livelihood support system through debt relief to farmers, improved supply of institutional credit, crop centric approach to agriculture, assured irrigation facilities, watershed management, better extension and farming support services and subsidiary income opportunities through horticulture, livestock, dairying, fisheries etc. So far ₹ 18136.59 crore (as on March, 2010) has been released to these States. The Government has further carried out mid-term modification and has extended period for implementation of the non credit components by 2 more years i.e. 30th September, 2011.

The Government has also approved package for development of Kuttanad Wetland Eco-system and mitigation of agrarian distress in Idukki district of Kerala envisaging an outlay of ₹ 1840.75 crore and ₹ 764.45 crore respectively.

FLOW OF CREDIT-ACHIEVEMENT

The target of agriculture credit flow for the year 2009-10 was fixed at ₹ 3,25,000 crore and the achievement as on March, 2010 is ₹ 3,66,919 crore forming 113 per cent of the target. Target for credit flow for 2010-11 is ₹ 3,75,000 crore.

AGRICULTURE INSURANCE

NATIONAL AGRICULTURAL INSURANCE SCHEME

The frequency and severity of droughts, floods, cyclones and erratic climatic changes accentuate uncertainty and risk in the agricultural production and the livestock population in India.

The National Agricultural Insurance Scheme (NAIS) is being implemented in the country since Rabi 1999-2000, as a part of risk management in agriculture with the intention of providing financial support to the farmers in the event of failure of crops as a result of natural calamities, pests and diseases. The scheme is available to all the farmers - loanee and non-loanee- irrespective of their size of holding. Loanee farmers are covered on compulsory basis in a notified area for notified crops whereas for non loanee farmers scheme is voluntary. The Scheme envisages coverage of all the food crops (cereals, millets and pulses), oilseeds and annual commercial/horticultural crops, in respect of which past yield data is available for adequate number of years. The premium rates are ranging between 1.5 per cent and 3.5 pre cent (of sum insured) for food and oilseed crops. In the case of commercial/horticultural actuarial rates are being charged. Under the scheme, at present, 10 per cent subsidy in premium is available to small and marginal farmers.

At present, the scheme is being implemented by the 25 States and 2 Union Territories namely Andhra Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Orissa, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, Uttarakhand, West Bengal, Andman and Nicobar Islands and Puducherry. During the last twenty crop seasons (i.e. from Rabi 1999-2000 to Kharif 2009), 1524 lakh farmers have been covered over an area of 2363 lakh hectares insuring a sum amounting to ₹ 174910 crore. Claims to the tune of about ₹ 18725 crore have become payable against the premium income of about ₹ 5266 crore benefiting about 428 lakh farmers.

Based on the recommendations of the Joint Group constituted study the improvements required in the existing crop insurance schemes and views/comments

of various stake-holders, a proposal on Modified National Agricultural Insurance Scheme (MNAIS) has been prepared which is under consideration of the Government.

PILOT WEATHER BASED CROP INSURANCE SCHEME (WBCIS)

The Pilot Weather Based Crop Insurance Scheme (WBCIS) is being implemented in the 15 States during Kharif 2010 season by Agricultural Insurance Company of India (AIC) and private General Insurance Company like ICICI-LOMBARD, IFFCO-TOKIO and MS Cholamandalam General Insurance Company to provide insurance protection to the farmers against adverse weather incidence, such as deficit and excess rainfall, high or low temperature, humidity etc. which are deemed to impact adversely the crop production.

During six crop seasons (from Kharif 2007 to Rabi (2009-10). about 32.98 lakh farmers over an area of about 49.50 lakh hectare with sum insured of about ₹ 7645 crore have been covered under the Pilot Scheme and claims to the tune of about ₹ 450 crore have been paid against the premium of about ₹ 682 crore. Government of India has provided premium subsidy to the tune of ₹ 249 crore.

COCONUT PALM INSURANCE SCHEME (CPIS)

The Coconut Palm Insurance Scheme (CPIS) is launched on pilot basis during years 2009-10 and 2010-11 in the selected areas of Andhra Pradesh, Goa, Karnataka, Kerala, Maharashtra, Orissa and Tamil Nadu to cover Coconut Palms. The farmer should have at least 10 healthy nut bearing Palms in the age group of 4 to 60 years in contiguous area/plot and have been enrolled by State Agriculture/Horticulture Department or CDB or any other such agency under rehabilitation/development/expansion scheme components with the prior approval of the Department of Agriculture and Cooperation.

Implementation of oilseeds production programme has helped in increasing the production of oilseeds from 108.30 lakh tonnes in 1985-86 to 249.28 lakh tonnes during 2009-10. The pulses production in the country increased for 128.60 lakh in 1989-90 to 145.90 lakh tonnes in 2009-10.

The area under Oil palm increased from 8585 ha. at the end of 1992-93 to 1,55,203 ha. upto 2009-10 (Estimated). Actual production of Fresh Fruit Bunches (FFBs) during 2009-10 is 396702.22 MTs. yielding around 66488.12 MTs. of Crude Palm Oil (CPO).

The production of Maize increased from 88.84 lakh tones in 1994-95 to 166.80/IV Adv. Estimates) lakh tones during 2009-10.

SALIENT ACHIEVEMENTS OF NOVOD

The National Oilseeds and Vegetable Oils Development (NOVOD) board was constituted on 8th March, 1984 under the National Oilseeds and Vegetable Oil Development Board Act, 1983 as a statutory body for the integrated development of oilseeds and vegetable oil industry under the control of the Union government consisting of 36 members headed by the Union Ministers of Agriculture as Chairman and ten members in its Managing committee headed by Secretary (Agriculture and Cooperation) as Chairman.

The country has enormous potential of tree borne Oilseeds (TBOs) like Sal, Mahua, Neem, Simarouba, Karanja Jatropha, Jojoba, Cheura, Kokum, Tung, Wild apricot etc. However, the collection of seeds of these TBOs is hardly 10-20 per cent of its existing potential that too of poor quality infected with aflatoxin. Oil extraction from such seed is utilized mainly by soap industries. However, if the seed is properly

collected, dried and stored the oil from such quality seed can be used as cocoa butter substitute, pharmaceutical, cosmetic etc., industries or it can be exported. There is need to harness the existing potential and also to augment the future potential by undertaking large scale plantation of TBOs of commercial, value. Besides, the oil of *Jatropha* and *Karanja* can be very good substitute of bio-diesel.

Keeping in view the above, the Scheme "integrated Development of Tree Borne Oilseeds" (OBOs) has been implemented by the Board during the 10th plan period and continued in 11th plan period to harness the existing potential and augment the future potential of TBOs like *Jatropha*, *Jajoba*, *Mahua*, *Neem*, *Karanja*, *Wild Apricot*, *Cheura*, *Kokum*, *Simarouba Tung* etc.

PROMOTIONAL PROGRAMMES

Development of elite planting material and model plantation

The programmes of development of elite planting material and model plantation in respect of various TBOs has been initiated with a view to developing the quality planting material, which will serve as a source of quality planting material for undertaking large scale plantation of TBOs in future. The model plantation of *Jatropha* in 13806 ha., *Karanja* in 2848 ha., *Neem* in 1850 ha., and other TBOs like *Tung*, *Wild apricot*, *Mahua*, *Simarouba* etc. in 3197 ha., area has been undertaken on State Government waste/barren land through State Department of Agriculture, Horticulture, Forest etc. and institutional land through State Agricultural Universities and other ICAR, CSIR and ICFRE institutions. Board has also established TBO garden 122 ha., in Chhattisgarh, Haryana, Jharkhand, Karnataka, M.P., Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland and Uttarakhand States.

RESEARCH AND DEVELOPMENT PROGRAMME

The National Oilseeds and Vegetable Oils Development (NOVOD) Board had constituted National Networks namely, National Network on *Jatropha* and *Karanja* and National Network on *Wild apricot* and *Cheuras* by involving 43 SAUs, Institutions of Indian Council of Agricultural Research (ICAR), Council of Scientific and Industrial Research (CSIR), Indian Council of Forestry Research and Education (ICFRE), Central Food Technological Research Institute (CFTRI). The Energy Research Institute (TER) and Indian Institute of Technologies (IITs) during 2004-05 to address various researchable issue. In order to strengthen the R and D programme on other important research aspects 32 more R and D Centres were also included during 2008-09 and 2009-10.

About 5455 CPTs/superior genotypes including *Jatropha* (3502), *Karanja* (1322), *Wild apricot* (484), *Cheura* (71), *Simarouba* (28), *Mahua* (20) and *Kokum* (28) having high yield and oil contents have been identified. Out of which a total of 1481 CPTs of *Jatropha* (890), *Karanja* (305), *Wild apricot* (270), *Simarouba* (2) and *Kokum* (14) were Cryo-preserved in National Gene Bank at National Bureau of Plant Genetic Resources (NBPGR), New Delhi Thirty-five identified superior genotypes of *Jatropha* have been included in National trial in 2007 and 2008 for testing and evaluation by 14 R and D Institutions, a total of 644 genotypes are under testing in progeny trial and some potential genotypes have been recommended by participating institutes for yield trial. DNA fingerprinting and molecular characterization of 257 accessions of various TBOs viz *Jatropha* (228), *Karanja* (26) and *Simarouba* (3) from 19 states has been carried out. About 2000 seed samples of various TBOs have been analyzed for oil content.

The hybridization programme between *J. curcas* x *J. multifida* and *J. curcas* x *J. integerima* has successfully been initiated and two inter specific hybrids have been developed. TNAU has collected 100 species of *Jatropha* and developed about 2500 inter specific hybrids of above combinations, *J. curcas* x *J. integerima* has more number of hybrids as compared to *J. curcas* x *J. multifida*. Good yield in hybrids having 45 days interval between fruiting and maturity, photo-intensitive. Non-synchronization etc. have been observed in the trial. The first generation hybrids of *J. curcas* x *J. integerima* have undergone two generations of back crossing to produce BC, F, and BC₂ F₂ which have already been planted in the field. A wide variation in morphological characteristic i.e. leaf shape, leaf base and leaf margin etc. have been recorded. The centre is also developing dwarf hybrids of *Jatropha* for convenient harvesting. About 39 hybrid clones were evaluated which showed wide variation in their morphological traits. The evaluation of these hybrids is under progress.

Success has also been achieved to regenerate the multiple plants of *Jatropha* through Tissue Culture Besides the cost effective and efficient Post Harvest Equipment have also been developed. NOVOD Board has brought out bilingual (Hindi and English) technical publications on Neem, Jojoba, *Jatropha Karanja*, Wild apricot, Cheura, Tung, Kokum, Mahua and Simarouba for Tree distribution among oilseeds grower's.

An Oil Analysis Laboratory has been established in the NOVOD Board campus during 2009-10 for testing oil content of different TBOs. The lab is equipped with indigenous moisture meter and imported automated sox let apparatus from Sweden. Besides GLC, HPLC, Spectra photometer, viscometer etc. have also been installed in the lab for analysis of quality parameters. The Board has received more than 1000 seed samples of various TBOs namely *Jatropha* (900), *Karanja* (70), Wild apricot (25) and Simarouba (20) from participating institutes of R and D National Network programme. About 66 seed samples of *Jatropha* have been analyzed for oil content having 14-46 per cent oil in the seeds.

RAINFED FARMING SYSTEM

Rainfed agriculture is characterized by low levels of productivity and low input usage. Variability in rainfall results in wide variation and instability in yields. The bulk of the rural poor, live in the rainfed regions. Government of India accords priority to the holistic and sustainable development of rainfed areas through watershed development approach. The key attributes of the watershed approach are conservation of rain water and optimization of soil and water resources in a sustainable and cost-effective mode.

NATIONAL WATERSHED DEVELOPMENT PROJECT FOR RAINFED AREAS

The National Watershed Development Project for Rainfed Areas (NWDPA) was launched in the VIII Plan period and has been subsumed under Macro Management of Agriculture (MMA) since November, 2000. The broad objectives are : (i) conservation, upgradation and sustainable utilization of natural resources, (ii) enhancement of agricultural productivity in sustainable manner, (iii) restoration of ecological balance in the degraded and fragile rainfed eco-systems by greening these areas through appropriate mix of trees, shrubs and grasses, (iv) reduction in regional disparity between irrigated and rainfed areas and (v) creation of sustained employment opportunities for the rural poor. The programme is presently being implemented in all the States. The main components include : (i) Preparatory phase (Entry point

activities, Institution and capacity building and Detailed Project Report), (ii) Watershed Works Phase (Watershed development works, Livelihood activities for the assetless persons and production system and micro enterprises) and (iii) Consolidation phase.

The scheme is being implemented in the XI Plan on the basis of revised Guidelines for Watershed Development projects published by National Rainfed Area Authority. The new concept includes implementation of projects in three phases namely preparatory phase, work phase and consolidation phase. An inbuilt provision for monitoring and evaluation has been introduced and more thrust on livelihood support activities and production system has been given in the new Guidelines.

Since inception till end of third year of XI Plan period i.e. upto 2009-10, an area of 10.31 million ha. has been developed in 15621 watersheds under the programme incurring an expenditure of about ₹ 3801.93 crores.

AGRICULTURAL MARKETING

Organized marketing of agricultural commodities has been promoted in the country through a network of regulated markets. Most of the state Governments and Union Territories have enacted legislations (APMC Act) to provide for regulation of agricultural produce markets. While by the end of 1950, there were 286 regulated markets in the country, today the number stands at 7566 (31.3.2006). Besides, the country has 27294 rural periodical markets, about 15 per cent of which function under the ambit of regulation. The advent of regulated markets has helped in mitigating the market handicaps of producers/sellers at the wholesale assembling level but, the rural periodic markets in general, and the tribal markets in particular, remained out of its developmental ambit.

Agriculture sector needs well functioning markets to drive growth, employment and economic prosperity in rural areas of the country. In order to provide dynamism and efficiency into the marketing system, large investments are required for the development of post harvest and cold chain infrastructure nearer to the farmers' field. A major portion of this investment is expected from the private sector, for which an appropriate regulatory and policy environment is necessary. Alongside, enabling policies need to be put in place to encourage procurement of agricultural commodities directly from farmers' field and to establish effective linkage between the farm production and the retail chain and food processing industries. Accordingly, amendment to the State APMC Acts for deregulation of marketing system in the country have been suggested by Central Government to promote investment in marketing infrastructure, motivating corporate sector to undertake direct marketing and to facilitate a national integrated market.

The Ministry of Agriculture has formulated a model law on agricultural marketing for guidance and adoption by the States Governments. The model legislation provides for establishment of Private Markets/Yards, Direct Purchase Centres, Consumer/Farmers Markets for direct sale and promotion of Public Private Partnership in the management and development of agricultural markets in the country. Provision has also been made in the Act for constitution of State Agricultural Produce Marketing Standards Bureau for promotion of grading, standardization and quality certification of agricultural produce. This would facilitate pledge financing, direct purchasing, forward/future trading and exports. Seventeen States/U.Ts have amended their APMC Act and the remaining States are in the process of doing so. In pursuance of the 53rd NDC resolution, the Ministry of Agriculture has

prepared Draft Model Rules also based on the Model Law and circulated to all concerned States/U.Ts. So far, 7 States have framed their amended APMC Rules.

NATIONAL INSTITUTE OF AGRICULTURAL MARKETING (NIAM)

The National Institute of Agricultural Marketing (NIAM) is premier national level Institute set up by the Government of India in August 1988 to offer specialized Training, Research, Education and Consultancy in Agricultural Marketing. NIAM is an autonomous body under the aegis of the Ministry of Agriculture, Government of India. It was set up as a Registered Society to cater to the needs of Agricultural marketing personnel in India as well as from South East Asian countries. The Union Minister for Agriculture is the President of the General body NIAM and Secretary, Department of Agriculture and Cooperation is the Chairman of the Executive Committee.

The main objectives of NIAM are as follows :

- (i) To provide specialized training in agricultural marketing designed to develop leadership potential in the management of agricultural marketing enterprises and services.
- (ii) To undertake research in agricultural marketing for Government, Cooperative and other Institutes, both on public funding and by contract;
- (iii) To undertake appraisal of markets/marketing projects for approval and financial support by the Central Government, on consultancy basis;
- (iv) To formulate objective criteria for selective development of physical markets and to evolve a practical methodology for the application of such criteria in their planning;
- (v) To offer advisory and consultant services on marketing policies, investment programmes and marketing development strategies and specific advice to marketing enterprises (State, Private and Cooperatives);
- (vi) To survey, study and analyze the rural market management and to examine in depth the principal and practice of market regulation as a development sector in the agricultural economy.

Small Farmers' Agri-business consortium

Small farmers Agri-business Consortium (SFAC) was registered by Department of Agriculture and Cooperation as a Society under the Societies Registration Act, 1860 on 18th January, 1994.

SAFC is managed by the Board of Managing consisting of 20 members and chaired by Hon'ble Union Minister of Agriculture as its ex-Officio President and the Secretary (Department of Agriculture and Cooperation), Government of India as its Ex-Officio Vice President. Managing Director is the Chief Executive of SFAC. SAFC has established 18 State level SFACs by contributing corpus fund. Members of Present include RBI, SBI, IDBI, EXIM Bank, Oriental Bank of Commerce, NABARD, Canara Bank, NAFED, United Phosphorous Ltd. etc.

The Central Sector Scheme for Agri-business Development is being implemented by Small Farmers' Agri-business Consortium (SFAC) in close association with Commercial Banks for providing (a) Venture Capital Assistance to agri-business projects and (b) assist farmer/producer groups in preparation of quality Detailed Project Reports (DPR).

Agricultural Production

(In Lakh Tonnes)



SAFC since the inception of the scheme has sanctioned 349 agri-business projects in various states across the country with a venture capital of ₹ 93.49 crores including private investment of ₹ 1061.40 crores benefiting 68,700 farmers by way of assured purchase of their produce, prevent wastage of perishable produce and generated employment to 28,000 persons.

The scheme is being implemented as an ongoing scheme during financial year 2008-09 with Budget Estimate of ₹ 20.00 crores. During the current financial year till date SFAC has sanctioned of venture capital to 59 agro-business projects against the target of 65 projects with varied agri-business activities.

National Food Security Mission

In Pursuance to the resolution of National Development Council (NDC) to launch a Food Security Mission in the country for enhancing the production of rice, wheat and pulses by 10, 8 and 2 million tonnes respectively by the end of 11th Plan, a Centrally Sponsored Scheme on 'National Food Security Mission (NFSM)' is under implementation by the Department of Agriculture and Cooperation in 17 States. The NFSM has three components viz. NFSM-Rice, NFSM-Wheat and NFSM-Pulses. Presently, the NFSM-Rice is being implemented in 138 districts of 14 states namely, Andhra Pradesh (11), Assam (13), Bihar (18), Chhattisgarh (10), Gujarat (2), Jharkhand (7), Karnataka (7), Kerala (1), Madhya Pradesh (9), Maharashtra (6), Orissa (15), Tamil Nadu (5), Uttar Pradesh (26) and West Bengal (8) the NFSM-Wheat is being implemented in 141 districts of 9 states namely, Bihar (25), Gujarat (4), Haryana (7), Madhya Pradesh (30), Maharashtra (8), Punjab (10), Rajasthan (15), Uttar Pradesh (38) and West Bengal (4). The NFSM-Pulses is being implemented in 467 districts of 16 states namely, Andhra Pradesh (22), Assam (10), Bihar (38), Chhattisgarh (18), Gujarat (26), Haryana (21), Jharkhand (17), Karnataka (30), Madhya Pradesh (50), Maharashtra (33), Orissa (30), Punjab (20), Rajasthan (33), Tamil Nadu (30), Uttar Pradesh (71) and West Bengal (18).

Mini Mission-II of Technology Mission on Cotton (TMC)

To increase production and productivity of the cotton, a Centrally Sponsored Scheme of Mini Mission-II of Technology Mission on Cotton is implemented in 12 States viz; Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tripura, Tamil Nadu, Uttar Pradesh and West Bengal. The expenditure on most components is shared by GOI and States on 75:25 sharing basis between the Government of India and the States. However, certain components of scheme like frontline demonstration, insecticide resistance management and maintenance of nucleus and breeder seeds are being implemented through Indian Council of Agriculture Research (ICAR) on 100 per cent funding basis by per cent Government of India.

The Scheme provides assistance for extension and development activities such as transfer of technology through frontline demonstrations as well as training of farmers through Farmers' Field Schools, training of facilitators plant protection measures like Insecticide Resistance Management (IRM), Integrated Pest Management (IPM) demonstrations, supply of bio-agents, bio-pesticides, etc.

Mini Mission-II of Jute Technology Mission (JTM)

To increase production and productivity of the raw jute, a Centrally Sponsored Scheme on Mini Mission-II of Jute Technology Mission (JTM) is being implemented during

2010-11 in nine States viz., Andhra Pradesh Assam, Bihar, Meghalaya, Nagaland, Orissa, Tripura, Uttar Pradesh and West Bengal. The funding pattern under the scheme is mostly on 90.10 sharing basis between the Government of India and the States while some components implemented by ICAR/SAU's are 100 per cent funded by GOI.

Under the scheme, assistance is provided on production and supply of certified seeds, transfer of technology through field demonstrations as well as training of farmers through Farmers Field Schools, training of extension workers, establishment of retting tanks, supply of fungal culture etc. for improving fibre quality, establishment of degumming and decortication units for ramie crop, supply of farm implements and soil ameliorants, popularization of IPM practices etc.

Scheme of Sustainable Development of Sugarcane Based cropping Systems Areas (SUBACS)

For increasing the production and productivity of sugarcane, a Centrally Sponsored Scheme on "Sustainable Development of Sugarcane Based cropping Systems Areas (SUBACS)" is under implantation under Macro Management Mode of Agriculture to give more flexibility to States and implement the programmes on the basis of State's priorities and requirements. Most of the components are supported on 90.10 sharing basis between the Government of India and State Governments. However, some components like FLD, breeder seed production and national level training are implemented through ICAR on 100 per cent funding by the Central Government. The main thrust of the scheme is on the transfer of improved technologies to the farmers through field demonstrations, training of farmers, supply of farm implements, enhancing seed production and pest measures etc. Assistance is provided to the States for implementation of these programme based on the Work Plan prepared by them according to region of needs.

ICPD-RICE/WHEAT/COARSE CERELS

For increasing the production and productivity of Cereals Crop, a Centrally Sponsored Scheme of Integrated Development Programme in Rice/Wheat Based Cropping System Areas (ICDP-Rice/Wheat) under Macro Management is being implemented in non-NFSM Rice/Wheat districts in Major Rice/Wheat Growing States in the country. Besides, Integrated Cereals Development Programme in Coarse Cereals (excluding Maize) Cropping System Areas (ICDP-Coarse Cereals), under Macro Management is also being implemented in major Coarse Cereals growing states in the country.

AGRICULTURAL MECHANISATION

Strategies and programmes have been directed towards replacement of traditional and inefficient implements by improved ones, enabling the farmers to own tractors, power tillers, harvesters and other machines, availability of custom hire services, support services of human resource development, testing, evaluation and research and development. A large industrial base for manufacturing of the agricultural machines has also been developed. Introduction of technologically advanced equipments through extension and demonstration besides institutional credit has also been taken up. Equipments for resource conservation have also been adopted by the farmers.

Under various Government sponsored Schemes like Macro Management of Agriculture, Technology Mission for Oilseeds, Pulses and Maize, Technology Mission

on Horticulture, Technology Mission on Cotton and National Food Security Mission, financial assistance is provided to the farmers for the purchase of identified agricultural implements and machines.

Farm Machinery Training and Testing Institutes : Farm Machinery Training and Testing Institutes (FMT&TIs) have been established at Budni (Madhya Pradesh), Hissar (Haryana), Garladinne, Anantpur (Andhra Pradesh) and at Biswanath Chariali (Assam). The institutes have the capacity to train 6000 personnel annually on various aspects of agricultural mechanisation. These institutes also undertake testing and performance evaluation of agricultural machines including tractors in accordance with National and International Standards. Since inception 1,13,268 personnel have been trained and about 2815 machines tested by these institutes till 31st March, 2010. During 2010-11 these institutes have trained 1544 personnel and tested 73 machines till August end 2010.

Demonstration of newly developed agricultural/horticultural equipments: With the objective of induction of improved/new technology in the agricultural production system, demonstration of newly developed agricultural equipment including horticultural equipment has been undertaken. The component envisages conduct of demonstrations of improved/newly developed agricultural/horticultural equipment at farmers' field to acquaint them about their use and utility for production of different types of crops. Hundred per cent grant in aid is given to the implementing agencies for procurement and demonstration of identified equipment. For implementation of schemes, funds are released to States and two organisations (viz. ICAR & SFCI) on the basis of proposals received for assistance under the scheme. During the year 2009-10, 7661 demonstrations of new equipments were conducted benefitting 1,63,834 farmers.

Outsourcing of Training : This is a new component approved from the Tenth Plan in order to train large number of farmers at nearby places and implemented w.e.f. 2004-05. The training programme have been arranged through the identified institutions by each state namely State Agricultural Universities (SAU's), Agricultural Engineering Colleges/Polytechnics etc. During the year 2009-10, funds amounting to ₹ 32.40 lakh have been provided for conducting training programmes at the identified institutions.

Post Harvest Technology and Management : "Reforming Agricultural Markets and Promoting Post Harvest Technology" has been identified as one of the thrust areas for the Ministry of Agriculture by the Prime Minister's Office. Accordingly the Department is implementing a new scheme on "Post Harvest Technology and Management" During XI Plan period w.e.f. March 2008 with an approved outlay of ₹ 40.00 Crores. Under the scheme the technologies developed by ICAR, CSIR and those identified from within the country and abroad for primary processing, value addition, low cost scientific storage/transport of cereals, pulses, oilseeds, sugarcane, vegetables and fruits and the crop by-product management is being given thrust. Under this scheme during the year, 2009-10, ₹ 133.35 lakh have been released for distribution of post harvest equipments through subsidy organising demonstration and training on post harvest technologies. During the year 2009-10 1251 demonstration of PHT equipments were conducted, benefited 1,23,146 farmers benefited.

State Agro Industries Corporations : The Government of India had advised the State Governments in the year 1964, to set up State Agro Industries Corporations (SAICs) in the public sector to act as catalysts in providing access to industrial inputs for

farmers, for their use in agriculture. Thus, 17 SAICs were set up in the joint sector with equity participation of the Government of India and respective State Governments, namely Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Uttar Pradesh, Tamil Nadu and West Bengal during 1965 to 1970. Many of the State Governments have increased their equity participation as a result of which the government of India, at present, is a minority shareholder. So far, the government of India's shares in SAICs of Gujarat, Karnataka, Uttar Pradesh, Tamil Nadu, Rajasthan and West Bengal have been transferred to the State governments concerned.

Legislative framework: The Dangerous Machines (Regulations) Act, 1983, came into force with effect from 14th December, 1983. The Act provides for the regulation of trade and commerce and production, supply and use of products of any industry producing dangerous machines with a view to securing the welfare of persons operating any machine and for payment of compensation for death or bodily injury suffered while operating any such machine. Power threshers used for threshing of the agricultural crops have been under the ambit of this Act. The power operated chaff cutter and power operated sugarcane crusher have also been brought under the purview of the Dangerous Machines (Regulation) Act 1983 by way of Notification and also the Dangerous Machines (Regulation) Rules 1984 have been amended on 24th July, 2007.

INTEGRATED NUTRIENT MANAGEMENT

India is the third largest producer of fertilizers after China and USA and second largest consumer after China in the world. Against 22.57 million tonnes of fertilizer nutrients (NPK) consumed during 2007-08, the nutrient consumption was 24.91 million tonnes. The consumption of major fertilizers namely, Urea, DAP, MOP, SSP and Complexes was 26.65, 9.23, 4.08, 2.62 and 6.81 million tonnes respectively during 2008-09. The all India average fertilizer consumption in 2008-09 was 127.21 kg/ha of NPK nutrients, though there was wide variation from state to state varying from 226.35 kg/ha. in Andhra Pradesh, 224.59 kg/ha. in Punjab, 217.58 kg/ha. in Tamil Nadu, 199.62 kg/ha. in Haryana to less than 5 kg/ha. in States like Arunachal Pradesh and Nagaland, etc. Considering the skewed pattern of fertilizer use, Government of India is promoting balanced and integrated use of fertilizer nutrient through various initiatives. As a result, NPK consumption ratio has now improved to 4.6:2.0:1 during 2008-09 from 7.0:1.7:1 during 2000-01.

PRICE OF FERTILIZERS

Presently urea is the only fertilizer which is under statutory price control. To ensure adequate availability of fertilizers to farmers at reasonable rates, subsidy is provided by Government of India. Urea, the most consumed fertilizers, is subsidized under the New Urea Pricing Scheme. The price of Urea has been increased by 10 per cent from 1st April 2010. Government of India is implementing Nutrient Based Subsidy (NBS) policy w.e.f. 1st April 2010, and subsidy is being given on the basis of nutrients NPK and S present in the fertilizers to the companies.

FERTILIZER QUALITY CONTROL

The Government ensures the quality of fertilizers through Fertilizer (Control) Order (FCO), issued under Essential Commodities Act (ECA) to regulate, the trade, price,

quality and distribution of fertilizers in the country. The State Governments are primarily responsible to implement the various provisions of FCO. The Order strictly prohibits the manufacture, import and sale of any fertilizer, which does not meet prescribed standards. The Central Fertilizer Quality Control and Training Institute at Faridabad and its three Regional Laboratories located at Navi Mumbai, Chennai and Kalyani have been set up for inspection and analysis of both imported and indigenous fertilizers, giving technical advice and providing training on Fertilizer Quality Control to State Enforcement Agencies and Analysts.

Presently there are 71 Fertilizer Quality Control Laboratories in the country (including 4 Central Government laboratories) with a total annual analyzing capacity of 1.32 lakh samples.

BALANCED USE OF FERTILIZERS

Government of India is promoting the concept of Balanced Use of Fertilizers and also advocating the concept of soil test based fertilizer use. During the eleventh plan a new scheme titled "National Project on Management of Soil Health and Fertility has been introduced with total outlay of ₹ 429 crores. Under the scheme it is proposed to create 500 new Soil Testing Laboratories (STLs) and 250 Mobile Soil Testing Laboratories (MSTLs) and also strengthen the existing soil testing laboratories.

NATIONAL PROJECT ON ORGANIC FARMING

National Project on Organic Farming is a continuing scheme from 10th Five Year Plan period and is being implemented in 11th plan with an outlay of ₹ 101.00 crore for technical capacity building and promotion of organic farming in the country. The revised scheme of National Project on Organic Farming has initiated with some new innovative activities. The main components of the scheme include:

- (a) Financial assistance for setting up of Fruits/Vegetable Market Waste compost units and Bio-fertilizers production/Bio-pesticides units.
- (b) Technical capacity building and Human Resource development through training and research.
- (c) Quality control of Organic fertilizers/Bio-fertilizers as statutory requirement under FCO.
- (d) Biological assessment of Soil Health.
- (e) Launching and operationalization of low cost certification system known as Participatory Guarantee System (PGS).
- (f) Awareness creation and publicity of increasing adoption of organic farming in the country.

ANIMAL HUSBANDRY

Animal Husbandry and Dairy Development plays a prominent role in the rural economy in supplementing the income of rural households, particularly, the landless and small and marginal farmers. It also provides subsidiary occupation in semi-urban areas and more so for people living in hilly, tribal and drought-prone areas where crop output may not sustain the family. According to estimates of the Central Statistical Organization (CSO), the value of output from livestock and fisheries sectors together at current prices was about ₹ 3,10,891 crores and current prices during 2008-09 (₹ 2,64,000 crores for livestock sector and ₹ 49,891 crores for fisheries) which is about 30 per cent of value of output of ₹ 10,53,1630 crores from total of

Agriculture, Animal Husbandry and Fisheries sector. The contribution of these sectors to the total GDP during 2008-09 was 4.1 per cent.

India is endowed with the largest livestock population in the world. It accounts for 57 per cent of the world's buffalo population and 14 per cent of the cattle population. According to Livestock Census (2003), the country has about 18.5 crore cattle and 9.8 crore buffaloes.

CONTRIBUTION OF LIVESTOCK SECTOR TO FOOD BASKET

The contribution of livestock sector to the food basket in the form of milk, eggs and meat has been immense in fulfilling the animal protein requirement of ever-growing human population. The present availability of human protein in an Indian diet is around 11.3gm per person per day, as against a world average of 29gm. However, keeping in view the growing population, the animal protein availability has to increase at least twofold, for maintaining the nutritional level of growing children and nursing mothers in India.

Milk Production : During past five-year plans, several measures were initiated by the Government to increase the productivity of livestock, which has resulted in significant increase in the milk production to the level of 108.5 million tonnes in the year 2008-09 as compared to 53.9 million tonnes in 1990-91. India continues to be the largest producer of milk in the world.

Egg-Production : The egg production in the country has reached 55.6 billion numbers in 2008-09.

Wool Production : The wool production in the country has reached 42.7 million kg during 2008-09.

Other Livestock Products : Livestock sector not only provides essential protein and nutritious human diet through milk, eggs, meat etc., but also plays an important role in utilization of non-edible agricultural by-products. Livestock also provides raw material by-products such as hides and skins, blood, bone, fat etc.

SCHEME/PROGRAMMES

Livestock Insurance : The Government of India introduced a Centrally Sponsored Scheme, Livestock Insurance, on pilot basis during the years 2005-06 and 2006-07 in 100 selected districts of the country. The scheme continued during 2007-08 also. A full pledged scheme 'Livestock Insurance' was approved on 20th November 2008 in 100 newly selected districts on regular basis. The scheme covers 300 selected districts from 10th December, 2009. The Scheme has been formulated with the twin objective, providing protection mechanism to the farmers and cattle rearers against any eventual loss of their animals due to death and to demonstrate the benefit of the insurance of livestock. The scheme is implemented in all the States through the State Livestock Development Boards. Where no such board exists, the scheme is being implemented through the State Directorate of Animal Husbandry. The scheme benefits the farmers (large/small/marginal) and cattle rearers having the indigenous/crossbred milch cattle and buffaloes. Benefit of subsidy is restricted to two animals per beneficiary per household.

It is a 100 per cent Centrally Sponsored scheme. The funds under the scheme are utilized for payment of premium subsidy, honorarium to the Veterinary Practitioners and publicity campaign for creation of awareness. 50 per cent of premium

of insurance is paid by the beneficiary and the remaining 50 per cent is paid by the Government of India. 6.50 lakh animals were insured during 2009-10 at a cost of ₹ 26.62 crore. Up to 2009-10, 20.04 lakh animals were insured under the scheme utilizing an amount of ₹ 84.73 crores.

LIVESTOCK CENSUS

In view of the importance of Livestock sector to the national economy and considering the short span of re-productivity and life of domestic animal, it was decided by the Government to conduct the Livestock Census. The first Livestock Census was conducted during 1919-1920 and since then it is being conducted quinquennially by all States/UTs in India. So far 18 such Censuses have been conducted and the latest one is 18th Livestock Census in the series with 15/10/2007 as the date of reference.

The Livestock Census scheme is Centrally Sponsored Scheme with 100 per cent Central assistance. The objective of the present Livestock Census is to provide State wise information on (1) livestock and poultry resources, (2) availability of infrastructure related to Livestock and Fishery sectors, (3) animal driven agricultural equipment and implements and used for Livestock/poultry, (4) Fishery statistics and (5) Livestock resources by socio-economic status of the households. The ultimate responsibility for conducting the Livestock Census rests with the State animal Husbandry Departments. The Central Government coordinates the work of the States and gives necessary guidance to ensure uniformity in collection of Census data.

Livestock Census data are primarily used by Central and State Departments of Animal Husbandry, Dairying and Fisheries for planning monitoring and formulation of various plan schemes programmes etc. The Census results are also used in the estimating annual production of major livestock products and national income from livestock sector. In addition, other related national/international organizations/departments in the sector, industry, research organizations etc. are the users of Census data.

The results of 18th Livestock Census would be brought out in two phases viz. (1) All India Report (Provisional) based on Quick Tabulation Plan, derived from Village level totals and (2) All India Report (Final results), derived from computerized household data. All India Report (Provisional) is expected to be finalized shortly and All India Report (Final Results) in the courts of 2010.

A sum of ₹ 251.46 crore was revalidated/released during 2007-08 to 2009-10 for the conduct of 18th Livestock Census. An amount of ₹ 18.50 crore has been provided during 2010-11.

CATTLE AND BUFFALO DEVELOPMENT

India possesses 27 acknowledged indigenous breeds of cattle and seven breeds of buffaloes. Various Central and Centrally sponsored schemes are being implemented for genetic improvement of cattle and buffalo with a view to enhance the per capita availability of consumption of milk through increased milk production. Efforts are also made to protect and preserve the indigenous cattle and buffalo in their native tract, which are facing threat of extinction. The elite animals are selected and registered on the basis of their performance for production of superior pedigree bulls, bull-mothers, frozen semen and frozen embryos for future breeding improvements.

The National Project for Cattle and Buffalo Breeding envisages 100 per cent grant in aid to implementing agencies. Phase-II of the National Projects for Cattle and

Buffalo Breeding was initiated in December, 2006 for a period of five years (2006-07 to 2010-11) with an allocation of ₹ 775.87 crore. Phase-II will provide self-employment to about 20,000 A1 practitioners in delivery of B1 at the farmer's doorstep. To improve productivity of bovine population, the proposal aims to bring 80 per cent breedable females among cattle and buffalo under organized breeding through artificial insemination or natural service by high quality bulls. It also envisages undertaking breed improvement programme for indigenous cattle and buffaloes so as to improve the genetic make-up as well as their availability.

A Central Herd Registration Scheme for identification and location of superior germ plasm of cattle and buffaloes, propagation of superior germ stock, regulating the sale and purchase, help in formation of breeders society and to meet requirement of superior bulls in different parts of the country is also being implemented. The Government of India has established Central Herd Registration Unit in four breeding tracts i.e. Rohtak, Ahmedabad, Ongole, Ajmer. A total of 92 Milk Recording Centres are functioning to register these breeds of cattle viz. Gir, Kankrej, Hariana and Ongole and in Buffalo Jaffrabad, Mehsani, Murrah and Surti. During 2008-09, 14,428.

The seven Central cattle breeding farms at Suratgarh (Rajasthan), Chiplima and Semiliguda (Orissa), Dhamrod (Gujarat), Hessarghatta (Karnataka), Alamadi (Tamil Nadu) and Andeshnagar (Uttar Pradesh) are engaged in scientific breeding programmes of cattle and buffaloes and production of high pedigreed bulls for National Project for Cattle/ Buffalo Breeding Programme besides providing training to farmers and breeders. During 2009-10, these farms produced 393 bull calves and supplied 234 high pedigreed bulls for use under Artificial Insemination Programme in various parts of the Country. The CCBFS trained 2864 nos. of farmers during farm management.

The Central Frozen Semen Production and Training Institute (CFSP&TI) located at Hessarghatta (Bangaluru) is producing frozen semen doses of indigenous, exotic and crossbreed cattle and Murrah buffalo bulls for use in artificial insemination (A1). The Institute also provides training in semen technology to technical officers of the State Governments and acts as a Centre for testing the indigenously manufactured frozen semen and AI Equipments. The Institute produced 10.28 lakh doses of frozen semen and provided training to 255 persons in field of frozen semen technology and andrology during the year 2009-10.

POULTRY DEVELOPMENT

Poultry development in the country is one of the most resilient sectors in the country which is adapting fast to the changing requirement and needs of biosecurity, health, food safety etc. The sector is also having a broad spectrum with one end being highly industrialized system and export-oriented and the other end is still addressing livelihood issue in the most simplified systems.

India has a poultry population of 556.40 million and egg production is estimated at more than 53.6 billion. India ranks among the top three countries in egg production in the world and has around 3 per cent of the total chicken population of the world.

The broiler production continues to grow at the rate of around 8 per cent every year and growth in production of poultry/chicken meat increased from mere 0.50 million metric tonnes in 2004-05 to 1.85 million metric tonnes in 2008-09. India is the fifth largest indigenous chicken meat producer in the World after US, China,

Brazil and Mexico, comprising of 3 per cent of total world production. The per capita availability has also increased from 42 pieces per person per annum in 2004-05 to 47 pieces in 2007-08. Exports of poultry products has increased two and a half times from ₹ 161 crore in 2004-05 to ₹ 422 crore in 2008-09. Value of Output from poultry meat and eggs at current prices is ₹ 23,443 crores (2007-08).

Poultry sector, besides providing direct or indirect employment to nearly 3 million people is a potent tool for subsidiary income generation for many landless and marginal farmers and also provides nutritional security especially to the rural poor.

To provide necessary services to the farmers of the country region-wise, four regional centers have been restructured on the principle of one-window service to the farmers. In these regional Central Poultry Development organizations (CPDOs) located at Chandigarh, Bhubaneswar, Mumbai and Hessarghatta, training is also being imparted to the farmers to upgrade their technical skills. The mandate of Central Poultry Development Organizations has specially been reoriented, to focus on improved indigenous birds, with higher productivity and improved Feed Conversion ratio. The Central Poultry performance Testing Center (CPPTC), located at Gurgaon is entrusted with responsibility of testing the performance of layer and broiler varieties. This Center gives valuable information relating to different genetic stock available in the country.

The Centrally Sponsored Scheme, "Poultry Development" is being implemented combining three components viz. 'Assistance to State Poultry Farms', (which is the continuing component) and two new components 'Rural Backyard Poultry Development and 'Poultry Estates'.

The scheme through its 'Assistance to State Poultry Farms' component aims at strengthening existing State poultry farms so as to enable them to provide inputs, mainly in terms of providing improved stocks suitable for rural backyard rearing. The 'Rural Backyard Poultry Development' component is expected to cover the needy Below poverty Line section of society to mainly enable them to gain supplementary income and nutritional support. Entrepreneurship skills are expected to be improved through pilot component of 'Poultry Estates' which is meant primarily for educated, unemployed youth and small farmers with some margin money, for making a profitable venture out of various poultry related activities in a scientific, and biosecure cluster approach. In order to encourage entrepreneurship skills of individuals, a Central Sector Scheme, 'Poultry Venture Capital Fund' Scheme is also being implemented, covering various poultry activities.

SHEEP AND GOAT DEVELOPMENT

According to Livestock census 2003, there are about 61.47 million sheep and 124.36 million goats in the country. About five million households in the country are engaged in the rearing of small ruminants (sheep and goats) and other allied activities.

Central Sheep Breeding Farm, Hissar is engaged in production of acclimatized exotic/cross bred superior quality rams. During 2009-10, the farm supplied 726 rams and 134 bucks. A total of 48 farmers were trained in mechanical sheep shearing and 532 farmers were trained in sheep management.

CONSERVATION OF THREATENED BREEDS

The population of purebred animals of some of the small ruminants, equines, pigs

and pack animal breeds has come down considerably and below 10,000 in some cases, which has brought such breeds to the category of threatened breeds in the country. Such erosion of livestock genetic resources has been a matter of concern and to address the same a Centrally Sponsored Scheme for conservation of such threatened breeds was started during Tenth Five Year Plan with a budget outlay of ₹ 1500 lakhs. Farms/farmer's unit for the threatened breeds are established under the scheme in their respective breeding tract with 100 per cent central assistance. The conservation projects are being implemented by State Governments, Universities and NGO's. During the Tenth plan period conservation projects for 27 breeds were taken up.

Eleventh Plan allocation has been enhanced from ₹ 16.00 crore to ₹ 45.00 crore during 2008-09. Poultry and duck breeds would also be covered during XI Plan whose population is around 1000. Allocation under the scheme during the financial year 2009-10 was ₹ 4.00 crore against which ₹ 355.76 lakh has been released during the year. Assistance provided during the current year for continuation/establishment of nucleus breeding units under the scheme are Arunachal Pradesh for Doom Pig (₹ 10.00 lakh), Bhutia Pony (₹ 20.00 lakhs), Yak (₹ 20.00 lakhs), the Government of Himachal Pradesh for Spiti Pony (₹ 20.00 lakhs), Yak (₹ 20.00 lakhs), Chegu goat ₹ 30.00 lakh, Government of Maharashtra for Madgyal sheep (₹ 10.00 lakhs), Berari Goat Rs. 34.95 lakh, Government of Mizoram has been assisted for continuation of Mithun flock (₹ 20.00 lakh). Zovawk Pig (₹ 10.00 lakhs) and Government of West Bengal for continuation of Ghongroo Pig (₹ 10.00 lakhs). Besides, funds were released to Animal Husbandry Department, Gujarat for conservation of Kathiawadi horse (₹ 36.81 lakhs), ₹ 20.00 lakh for genetic characterization, Kerala Livestock Development Board for conservation of Attapady Goat (₹ 20.75 lakh), Government of Sikkim for conservation of Banpala Sheep ₹ 18.25 lakh and ₹ 35.00 lakhs has been released to the Government of West Bengal as a new unit for conservation of Haringhatta Black Fowl.

INTEGRATED DEVELOPMENT OF SMALL RUMINANTS AND RABBITS

This new Central Sector Scheme has been approved in the first fortnight of April, 2009 for implementation during XI Plan with an allocation of ₹ 134.825 crores out of which B.E. for 2009-10 is ₹ 18.33 crore. An amount of ₹ 444.87 lakh has been released during the year. The scheme envisages setting up of intensive small ruminant development clusters with Goat, Sheep and Rabbit.

Integrated development of potential clusters will be implemented by NABARD and this component has been modified in 2010-11 to incorporate "Provision of 25 per cent back ended capital subsidy of project cost (33.33 per cent in hilly areas and Northeastern States and for SC/ST farmers in all the areas) to entrepreneurs taking up breeding/commercial rearing of sheep/goat/rabbits.

MEAT PRODUCTION/PROCESSING AND EXPORT

There are 21 export-oriented modern abattoirs and 57 meat processing plants registered with Agricultural and Processed Food Products Export Development Authority exporting raw meat (Chilled and frozen) to about 63 countries. During 2008-09, about 462749.55 M.T. Buffalo Meat and 37790.53 MT sheep/goat meat valued at ₹ 4839.67 crore and ₹ 493.37 crore respectively were exported. During April 2009 to January, 2010 Meat & its product worth ₹ 5387.05 crores have been exported.

PIGGERY DEVELOPMENT

As per Livestock census 2003, the pig population in the country was 139.19 lakhs of which 21.80 lakhs were cross bred/exotic pigs. Exotic breeds like white Yorkshire, Hampshire and Landrace are maintained at these farms. There are about 158 pig breeding farms in the country run by the State Governments/UTs. Efforts are being made in consultation with Planning Commission and other appraisal agencies to initiate Integrated Piggery Development Scheme under Macro Management Scheme during 11th Five Year Plan.

FEED AND FODDER DEVELOPMENT

For the development of the production potentiality of our livestock, availability of nutritious feed and fodder is essential. To facilitate fodder availability, several regional Stations have been established in different agro climatic Zones of the country for production of high yielding varieties of fodder/fodder seed and transfer of scientific fodder production technology through training of officers/farms, demonstration of latest fodder agronomic practices and organization of farmer fairs. During 2009-10 these stations produced 218.60 MT of high yielding fodder variety seeds, conducted 7764 field demonstrations, organized 145 training programmes and 142 Farmer Fairs.

The Central Fodder Seed Production Farm located at Hessairghatta (Karnataka) working with the same objectives as of Regional Stations produced 69.01 MT fodder seeds of different varieties of grasses/legumes, conducted 821 field demonstrations, organized 19 training programmes and 19 farmers fairs. A Central Minikit. Testing programme of fodder crops is under implementation for popularizing the high yielding fodder varieties on a large scale through Director Animal Husbandry of States. During 2008-09, 6.34 lakh minikits were allotted to the states for distribution to farmers free of cost.

Besides a centrally sponsored fodder Development Scheme is being implemented from 2005-06 for establishment of Fodder Block making units, grass land development including grass reserve, fodder seed production and biotechnology research project, under which funds of ₹ 1110.00 lakh was released to various States during 2009-10. A new Centrally Sponsored fodder and feed development scheme launched from 1st April 2010.

In addition, Special Livestock Package for Suicide Prone Districts of Maharashtra and Kerala is implemented under which ₹ 653.46 lakhs was released during 2008-09 for Feed and Fodder Supply Programme and establishment of fodder Block making units.

DAIRY DEVELOPMENT

The Indian, dairy industry has acquired substantial growth from the Eighth Plan onwards, achieving an annual output of over 108.50 million tonnes (provisional) of milk at the end of 2008-09. India's milk output has not only placed the industry first in world, but also represents sustained growth in the availability of milk and milk products. The Government is implementing following schemes for the development of dairy sector during 2009-10.

(a) Intensive Dairy Development Programme (IDDP) : The Schemes, modified as Intensive Dairy Development Programme on the basis of the recommendation of the evaluation studies was launched during Eighth Plan period and is being continued

during the Eleventh Plan with an outlay of ₹ 24.80 crore for 2010-11. So far 89 projects with an outlay of ₹ 507.23 crore have been sanctioned in 26 States and one UT. A sum of ₹ 405.46 crore has been released to various State Governments upto 31st March, 2010 and 209 districts have been covered. The scheme has benefited about 19.41 lakh farm families and organized about 26597 village level Dairy Cooperative Societies till 31st March, 2010.

(b) Strengthening Infrastructure for Quality and Clean Milk Production (CMP) : A centrally sponsored scheme was launched in October 2003, with the main objective of improving the quality of raw milk produced at the village level in the country. Under this scheme, assistance is provided for training of farmers on good milking practices. The scheme is being implemented on 100 per cent grant-in-aid basis to District Coop. Milk Unions and State Coop. Milk Federation through the State Governments/UTs for components viz. training of farmer member, detergents, stainless steel utensils, strengthening of existing laboratory facilities whereas 75 per cent financial assistance is provided for setting up of milk cooling facilities at village level in the form of Bulk Milk Coolers. Since inception 144 projects at a total cost of ₹ 228.84 crore with central share of ₹ 186.76 crore have been approved up to 31st March, 2010 under this scheme. A total sum of ₹ 143.63 crore as a central share has been released to the concerned State Governments for implementation of approved project activities up to 31.03.10. The scheme has benefited 5.42 lakh farmer members by imparting training and by installing 31.27 lakh litre capacity of Bulk Milk Coolers to facilitate marketing of milk produced by them and keeping its quality intact as on 31.03.10.

Assistance to Cooperative : The scheme aims at revitalizing the sick Dairy Cooperatives Unions at the District level and Co-operative Federations at the State level. Under the scheme rehabilitation programmes are prepared by NDDDB in consultation with Milk Union Federation/State Government. Central grants is released to milk union/Federations through NDDDB. The scheme is being continued during Eleventh Five Year Plan with a tentative outlay of ₹ 50 crore. Since inception in 1999-2000, 37 rehabilitation proposals of milk union in 12 States namely, Madhya Pradesh, Chhattisgarh, Karnataka, Uttar Pradesh, Haryana, Kerala, Maharashtra, Assam, Nagaland, Punjab, West Bengal and Tamil Nadu at a total cost of ₹ 271.00 crore with a central share of ₹ 135.69 crore have been approved upto 31.3.09. A total sum of ₹ 99.39 crore has been released till 31.03.2010. An amount of ₹ 8.30 crore has been provided in BE 2010-11 out of which a sum of ₹ 125.00 lakh has been released to the concerned Milk Unions during current financial year till 25.6.2010.

Dairy Venture Capital Fund : To bring about structural changes in unorganized sector, measures like milk processing at village level, marketing of pasteurized milk in a cost effective manner, quality upgradation of traditional technology to handle commercial scale using modern equipments and management skills, a new scheme viz. Dairy Venture Capital Fund was initiated in the Tenth Five Year Plan. The assistance under the scheme is provided to the rural/urban beneficiaries under a schematic proposal through bankable projects with 50 per cent interest free loan component. The scheme is implemented through NABARD and the funds released by GOI to NABARD are kept as revolving fund. Under the scheme the entrepreneur has to contribute 10 per cent and arrange 40 per cent loan from local bank. Government of India provide 50 per cent interest free loan through NABARD. Government of India also subsidizes the interest component payable by the farmers agricultural activities to the extent of 50 per cent only in case of regular/timely repayment.

This scheme was approved in Dec-2004 with a total outlay of ₹ 25.00 crore. The scheme is being implemented through NABARD and the funds released to NABARD to be kept as revolving fund. Since inception, a sum of ₹ 132.99 crore has been released to NABARD for implementation of the scheme up to 31st March 2010. There is a provision of ₹ 32.40 crore for implementation of the scheme during 2010-11.

Milk and Milk Product Order-1992 : With the Enactment of Food Safety Standard Act-2006, at present the work related to MMPO-92 are under Food Safety and Standard Authority of India (FSSAI), M/o Health and Family Welfare.

National Dairy Plan : Government is also examining launching a National Dairy Plan with an outlay of more than ₹ 17,371 crore to achieve a target of 180 million tonnes of Milk producing annually by 2021-22. Milk production is expected to grow at 4 per cent with an annual incremental output of 5 million tonnes in the next 15 years. Under this plan the government is contemplating to enhance milk production in major milk producing areas, strengthen and expand infrastructure to production, process and market milk through the existing and new institutional structures. The plan envisages breed improvement through AI and through nature service, setting up plants to augment cattle feed, bypass protein and mineral mixture. The plan also proposed to bring 65 per cent of the surplus milk produced under the organized sector for procurement as against the present 30 per cent. NDDB is in discussion with World Bank officials, to finalize Detailed Project Report for funding of the project. It is proposed to cover the first phase of NDP spanning 6 years - 1st April, 2011 to 31st March, 2017, coterminous with the 12th Five Year Plan.

LIVESTOCK HEALTH

Animal wealth in India has increased manifold. The Animal husbandry practices have also been changed to a great extent. Due to the liberalization of trade after the advent of the WTOs SPS agreement, the chances of ingress of exotic diseases into the country have increased. With the improvement in the quality of livestock through launching of extensive cross breeding programmes, the susceptibility of these livestock to various diseases including exotic diseases has increased. For ensuring the maintenance of disease-free status and to be compatible with the standards led by the World Animal Health Organization (OIE), major health schemes have been initiated to support animal health programmes in the State.

In order to reduce morbidity and mortality, efforts are being made by the State/ Union Territory Governments to provide better health care through Polyclinics/ Veterinary Hospitals/Dispensaries/First-Aid Centres including Mobile Veterinary Dispensaries. A network of 27562 Polyclinics/Hospitals/Dispensaries and 25195 Veterinary aid Centres (including Semen Centres/Mobile Dispensaries), supported by about 250 Disease Diagnostic Laboratories, are functioning in the States and Union Territories for quick and reliable diagnosis of diseases. In order to provide referral services over and above the existing disease diagnostic Laboratories are also functioning. Further, for control of major livestock and poultry diseases by way of prophylactic vaccination, the required quantity of vaccines are produced in the country at 27 veterinary vaccine production units out of these, 21 are in the public sector and 6 in private sector. Import of vaccines is also permitted as and when required.

Animal Quarantine and Certification Service : The objective of this service is to prevent ingress of livestock diseases into India by regulating the import of livestock

and livestock related products, and providing export certification of International Standards for livestock and livestock products which are exported from India.

There are six Animal Quarantine Stations functioning one each at Mumbai, Delhi, Kolkata, Chennai, Bengaluru and Hyderabad.

National Veterinary Biological Products Quality Control Centre : In order to assess the quality of vaccines and biological products a National Veterinary Biological Products Quality Control Centre (National Institute of Animal Health) has been set up at Baghpat, Uttar Pradesh.

The Institute has the following objectives :

- To recommend licensing of manufacturers of veterinary vaccines, biological, drugs, diagnosis and other animal health preparations in the country.
- To establish standard preparations to be used as reference materials in biological assays.
- To ensure quality assurance of the veterinary biological products both produced indigenously and imported.

Central/Regional Disease Diagnostic Laboratories : In order to provide referral services over and above the existing disease diagnostic laboratories in the States, one Central and five Regional Disease Diagnostic Laboratories have been set up by strengthening the existing state diagnostic facilities. The Centre for Animal Disease Research and Diagnosis (CADRAD) of Indian Veterinary Research Institute, Izatnagar is functioning as Central Disease Diagnostic Laboratory. The Disease Investigation Laboratory, Pune, Institute of Animal Health and Veterinary Biologicals, Kolkata, Institute of Animal Health and Biologicals, Bengaluru, Animal Health Institute, Jalandhar and Institute of Veterinary Biologicals, Khanapara, Guwahati are functioning as referral laboratories for Western, Eastern, Southern, Northern and North-Eastern region, respectively.

The main objectives of CDDL/RDDL are :

- (i) To work as a centre par excellence and provide referral diagnostic services to States/Union Territories and later on to the neighbouring countries.
- (ii) To study the problems of emerging diseases of livestock, mainly the infectious Bovine Rhinotracheitis in cattle, Blue Tongue, Peste Des Petits Ruminants (PPR). Sheep Pox etc. in sheep and goat. Swine fever in pigs, Glanders, Equine rihnopneumonitis in horse, Canine parvovirus in dog, Avian Influenzaa, Avian Encephalitis, Avian infectious laryngotracheitis, etc. in poultry.
- (iii) To demonstrate modern diagnostic techniques both in the laboratory and in the field to the disease investigation officers and field veterinarians in the country and
- (iv) To study the problems associated with inter State transmission of infectious livestock diseases and suggest remedial measures.

Livestock Health and Disease Control (LH&DC) : In order to control the economically important livestock diseases and to undertake the obligatory functions related to Animal Health in the country, the Government of India is implementing Livestock Health and Disease Control (LH&DC) with the following components.

(i) Assistance to States for Control of Animal Diseases (ASCAD) : Under this component, assistance is provided to State/Union Territory Governments for control

of economically important diseases of livestock and poultry by way of immunization, strengthening of existing State Veterinary Biological Production Units, strengthening of existing State Disease Diagnostic Laboratories, holding workshops/seminars and in-service training to Veterinarians and Paraveterinarians. The programme is being implemented on 75:25 sharing basis between the centre and the states, however, 100 per cent assistance is provided for training and seminar/workshops.

Besides this, the programme envisages collection of information on the incidence of various livestock and poultry diseases from States and Union Territories and compiling the same for the whole country. The information so compiled is the same for the whole country. It is disseminated in the form of Monthly Animal Disease Surveillance Bulletin to all the States and Union Territories and also the organizations like World Organisation for Animal Health (OIE). Animal Production and Health Commission for Asia and the Pacific (APHCA) etc. This information system has been harmonized in accordance with the guidelines of OIE.

(ii) National Project on Rinderpest Eradication (NPRE) : The objective of the scheme is to strengthen the veterinary services and to eradicate Rinderpest and Contagious Bovine Pleuro-Pneumonia (CBPP) and to obtain freedom from Rinderpest and CBPP infection following the pathway prescribed by World Organisation for Animal Health (OIE), Paris followed by the physical surveillance to maintain freedom status. OIE declared India as Rinderpest infection free and Contagious Bovine Pleuro-Pneumonia (CBPP) disease free country on 26th May, 2006 and 26th May, 2007 respectively. Hence, it is very important to maintain country's freedom status against these two diseases in the interest of trade and export.

In order to maintain freedom status, it is envisaged that the physical surveillance through village, stock route and institutional searches is undertaken. Animal Husbandry department of the States and Union Territories is carrying out this activity.

(iii) Foot and Mouth Disease Control Programme (FMD-CP) : 'Foot and Mouth Disease Control Programme' is being implemented in 54 specified districts in the country to control the Foot and Mouth Disease. This involves six monthly vaccinations of susceptible livestock against FMD. Eighth round of vaccination has been completed in all the participating States except Punjab. Ninth round has also been completed in Maharashtra and Gujarat. About 28.00 million vaccinations are conducted in every round.

(iv) Professional Efficiency Development (PED) : The objective of this scheme is to regulate veterinary practice and to maintain register of veterinary practitioners as per the provisions of Indian Veterinary Council Act, 1984 (IVC Act) and to improve in the efficiency of Veterinary professionals on latest technical knowledge by way of providing continuing Veterinary Education (CVE). The scheme envisages establishing Veterinary Council of India at the Centre and the State Veterinary Councils in those states, which adopted the Indian Veterinary Council Act, 1984. At present, it is implemented in all the States and Union Territories, except Jammu and Kashmir.

AVIAN INFLUENZA : PREPAREDNESS, CONTROL AND CONTAINMENT

PAST OUTBREAKS OF AVIAN INFLUENZA IN INDIA

The first outbreak of Avian Influenza in India was reported in February, 2006 in

Nandurbar district of Maharashtra and Surat district of Gujarat. This was followed by second outbreak of the disease in Jalgaon district of Maharashtra and Burhanpur district of Madhya Pradesh in March-April, 2006. The third outbreak of Avian Influenza occurred in July 2007 in a small poultry farm at Chingmeirong in East Imphal district of Manipur.

It was again reported during January-May 2008 in West Bengal. It was also reported in Tripura in April 2008 and Assam in November 2008. The outbreaks reoccurred in December 2008 to May, 2009 in West Bengal. The outbreak was also confirmed in Ravongla municipality in South Sikkim district in Sikkim in January, 2009. All the outbreaks were successfully resolved.

Recent Occurrence of Avian Influenza in Assam and reoccurrence in West Bengal: The last outbreak of Avian Influenza was confirmed on 14th January 2010 in Khargram block of Murshidabad district of West Bengal. Subsequently, the disease spread to adjacent Burwan block of Murshidabad district. The last incidence of Avian Influenza in the state was notified on 30th January 2010, after which there has been no further outbreak. A total of 12 epicentres were involved in this outbreak. During control and containment operations, a total of about 1.56 lakh birds were culled and 0.18 lakh eggs destroyed. An amount of ₹ 63.80 lakh was paid as compensation.

The control and containment operations were carried out successfully and the country has been declared free from the disease w.e.f. 2nd June 2010.

The following measures have been taken up by the Government of India for control and containment of current Avian Influenza outbreak as well as to prevent its ingress into the country.

- (i) Culling of entire poultry population in the affected zone of 0-3 Kms.
- (ii) Continuous strengthening of preparedness to tackle any future eventuality in terms of upgradation of laboratories, training of manpower, stockpiling of materials for control and containment etc.
- (iii) The training of veterinary personnel in preparedness, control and containment is continuing. More than 80 per cent veterinary workforce in the country has been trained to handle control and containment operations.
- (iv) Reserve of essential material for control operations have been developed and are being expanded further.
- (v) Sensitization of general public on Avian Influenza through Information, Education and Communication (IEC) campaigns.
- (vi) Transparent approach towards reporting not only outbreaks but also information of unusual sickness/mortality in poultry and results of laboratory diagnosis.
- (vii) All the state governments have been alerted to be vigilant about the outbreak of the disease, if any.
- (viii) Import of poultry and poultry products have been banned completely from HPAI positive countries.
- (ix) Border check posts with neighbouring countries have been alerted.
- (x) Guidelines issued to the states for further guidance to the poultry farmers.

FISHERIES

The Department of Animal Husbandry, Dairying and Fisheries has been undertaking

various production, input supply and infrastructure development programmes and welfare oriented schemes besides formulating/ initiating appropriate policies to increase production and productivity in the Fisheries Sector.

Fish production since 1980-81 is shown in the table below:

Year	(lakh tonnes)		
	Marine	Inland	Total
1980-81	15.55	8.87	24.42
1990-91	23.00	15.36	38.36
1991-92	24.47	17.10	41.57
1992-93	25.76	17.89	43.65
1993-94	26.49	19.95	46.44
1994-95	26.92	20.97	47.89
1995-96	27.07	22.42	49.49
1996-97	29.67	23.81	53.48
1997-98	29.50	24.38	53.88
1998-99	26.96	26.02	52.98
1999-2000	28.52	23.23	56.75
2000-2001	28.11	28.45	56.56
2001-2002	28.30	31.20	62.00
2002-2003	29.90	32.10	62.00
2003-2004	29.41	34.58	63.99
2004-2005	27.78	35.26	63.04
2005-2006	28.16	37.55	65.71
2006-2007	30.24	38.45	68.69
2007-2008	29.19	42.07	71.26
2008-2009	29.77	46.59	76.37

The fisheries sector has been one of the major contributors of foreign exchange earnings through export. Export of fish and fishery products has grown manifold over the years. From about 15,700 tonnes valued at Rs. 3.92 crore in 1961-62, exports have grown to 6.63 lakh tonnes valued at Rs. 9921 crore in 2009-10.

DEVELOPMENT OF INLAND FISHERIES AND AQUACULTURE

The ongoing scheme of Development of Freshwater Aquaculture and Integrated Coastal Aquaculture have been combined with four new programmes on Development of Coldwater Fish Culture, Development of water-logged Area and Derelict water bodies into aquaculture estates, Use of Inland Saline/Alkaline Soil for Aquaculture and programme for augmenting the Productivity of Reservoirs. This scheme broadly has two components. Aquaculture and Inland Capture Fisheries.

DEVELOPMENT OF FRESHWATER AQUACULTURE

The Government has been implementing an important programme in inland sector, viz., Development of Freshwater Aquaculture through the Fish Farmers Development

Agencies (FFDAs). A network of 429 FFDAs covering all potential districts in the country are in operation. During 2008-09, about 25,087 ha. of water area was brought under fish culture and 36,805 fish farmers were trained in improved aquaculture practices through FEDAs.

DEVELOPMENT OF BRACKISHWATER AQUACULTURE

With the objective of utilizing the country's vast brackishwater area for shrimp culture, an area of about 38,517 hectares was developed for shrimp culture till 2008-09 through 39 Brackishwater Fish Farmers Development Agencies (BFDAs) set up in the coastal areas of the country. The agencies have also trained 33,824 fishermen in improved practices of shrimp culture till 2008-09. Presently about 50 per cent of the shrimp exported from the country is from aquaculture.

DEVELOPMENT OF MARINE FISHERIES

The Government is providing subsidy to poor fishermen for motorizing their traditional craft, which increases the fishing areas and frequency of operation with consequent increase in catch and earnings of fishermen. About 46,223 traditional crafts have been motorized so far. The Government has also been operating a scheme on fishermen development rebate on HSD oil used by fishing vessels below 20 meter length to offset the operational cost incurred by small mechanized fishing boat operators.

DEVELOPMENT OF FISHING HARBOUR

The Government has been implementing a scheme with the objective of providing infrastructure facilities for safe landing and berthing to the fishing vessels. Since inception of the scheme, six major fishing harbours viz., Cochin, Chennai, Visakhapatnam, Roychowk, Paradip and Season dock (Mumbai), 62 minor fishing harbours and 194 fish landing centres have been taken up for construction in various coastal States/UTs.

WELFARE PROGRAMMES FOR TRADITIONAL FISHERMEN

Important programmes for the welfare of traditional fishermen are (i) Group Insurance Scheme for active fishermen, (ii) Development of Model Fishermen Villages, (iii) Saving-cum-relief Scheme, and (iii) Saving cum component financial assistance is provided to the fishermen during the lean fishing season. About 3.5 lakh fishermen were assisted under the saving-cum-relief programme in 2008-2009.

SPECIALISED INSTITUTES

The Central Institute of Fisheries, Nautical and Engineering Training, Kochi with units at Chennai and Visakhapatnam, aims at making available sufficient number of operators of deep-sea fishing vessels and technicians for shore establishments. Integrated Fisheries Project, Kochi, envisages processing, popularizing and test marketing of unconventional varieties of fish. The Central Institute of Coastal Engineering for Fisheries, Bangaluru, is engaged in techno-economic feasibility study for location of fishing harbour sites. Fishery Survey of India (FSI) is the nodal organization responsible for survey and assessment of fishery resources under the Indian Exclusive Economic Zone (EEZ).

NATIONAL FISHERIES DEVELOPMENT BOARD

National Fisheries Development Board was established to work towards blue revolution with a focus on to increase the fish production of the country to a level of 10.3 million tonnes, to achieve double the exports from 7,000 crores to 14,000 crores

and direct employment to an extent of 3.5 million by extending assistance to the various agencies for implementation of activities under Inland, Brackish water and Marine sectors. IT will become a platform for public-private partnership for fisheries, a mechanism for an end approach for ensuring proper self-availability to efficient marketing etc.

It is an autonomous organization under the administrative control of the Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, Government of India. It has been registered with the Office of the Registrar of Societies, Hyderabad on 10th July, 2006 with the registration number of 933 of 2006. The Board was inaugurated on 9th September, 2006. The office was established at Hyderabad. The period of implementation of the various activities of the board is 6 years (2006-12) :

- i) To bring major activities relating to fisheries and aquaculture for focused attention and professional management;
- ii) To coordinate activities pertaining to fisheries undertaken by different Ministries/Departments in the Central Government and also coordinate with the State/Union territory Government.
- iii) To improve production, processing, storage, transport and marketing of the products and culture fisheries.
- iv) To achieve sustainable management and conservation of natural aquatic resources including the fish stocks,
- v) To apply modern tools of research and development including biotechnology for optimizing production and productivity form fisheries;
- vi) To provide modern infrastructure mechanisms for fisheries and ensure their effective management and optimum utilization.
- vii) To generate substantial employment.
- viii) To train and empower women in the fisheries sector, and
- ix) To enhance contribution of fish towards food and nutritional security.

Major activities to be taken up by the National Fisheries Development Board :

- i) Intensive aquaculture in ponds and tanks.
- ii) Enhancing productivity from Reservoir Fisheries.
- iii) Brackish water Coastal Aquaculture.
- iv) Mariculture.
- vi) Sea Ranching.
- vii) Seaweed Cultivation.
- viii) Infrastructure for Post Harvest Programmes.
- ix) Fish Dressing Centres and Solar Drying Fish
- x) Domestic Marketing.
- xi) Other Activities.

The total budget provision for implementation of various activities of National Fisheries Development Board for the period 2006-12 is ₹ 2100 crores and subsequently reduced to ₹ 1500 crores.

DEPARTMENT OF AGRICULTURAL RESEARCH AND EDUCATION

The Department of Agricultural Research and Education (DARE), Ministry of

Agriculture provides government support, service and linkage to the Indian Council of Agricultural Research (ICAR) and is responsible for coordinating research and educational activities in the field of agriculture, animal husbandry and fisheries. Also, it helps to bring about interdepartmental and inter-institutional collaboration with national and international agencies engaged in agriculture and allied sectors. The Department has one more autonomous body, viz. the Central Agricultural University, Imphal under its administrative control.

INDIAN COUNCIL OF AGRICULTURAL RESEARCH

The Indian Council of Agricultural Research (ICAR) is an apex national organization for conducting and coordinating research and education in agriculture including animal husbandry, fisheries and allied sciences.. The Council undertakes research on fundamental and applied aspects in traditional and frontier areas to offer solutions to problems related to conservation and management of resources, productivity, improvement of crops, animals and fisheries. It plays a pivotal role in developing new technologies in agriculture and allied sectors and performs the functions of introduction and exploration of genetic resources of plants, animals and fisheries.

AGRICULTURAL RESEARCH

The Council has its headquarters at New Delhi and a vast network of institutes all over the country consisting of 49 institutes including 4 national institutes with Deemed to be University status; 6 National Bureau; 17 National Research Centres; 25 Project Directorates; and 78 All India Coordinated Research Projects including Network Projects. For higher education in agriculture and allied fields there are 44 State Agricultural Universities and 1 Central Agricultural University at Imphal. With an extensive network of research infrastructure, backed by an excellent team of scientists and other personnel, the ICAR is making rapid strides in agricultural research, and provides support to the national efforts in achieving food security and self-sufficiency.

RESEARCH, EDUCATION AND EXTENSION ACTIVITIES OF THE ICAR

The activity spectrum and the highlight of research, education and extension in different fields :

CROP SCIENCES

One hundred and thirty one varieties/hybrids of major food crops including rice, wheat, barley, maize, pearl millet, and pulses and oilseeds have been released/identified for different agro-climate regions of the country.

Significant crop improvement research includes development of rice varieties, namely Improved Pusa Basmati and Improved Samba Mahsuri, identification of 17 high-yielding varieties of pulses, 6 varieties of groundnut, 1 variety of soyabean and 2 hybrids of sun flower for release in different agro-ecologies. A total of 7,339.7 tonnes of breeder seed of centrally released field crop varieties was produced. Gene sources for resistance to Ug99 rust with new genes have been developed and race-specific and adult plant resistance to Ug99 and its cool temperature derivatives have been successfully introgressed in Indian wheat breeding materials.

For cutting edge research across disciplines and commodities, a National Institute on Abiotic Stress Management has been established in Maharashtra and is already operational. A DNA bank has been established, cutting across plant and animal kingdom, so that desirable traits could be incorporated while evolving new

varieties, hybrids, breeds etc. For value-addition and efficient utilization of genetic resources and to check biopiracy, special thrust is being given on gene prospecting and allele mining; phonemics, functional genomics and bio informatics. The ICAR has embarked upon an ambitious multidisciplinary programme 'Bioprospecting of Genes and Allele Mining for Abiotic Stress Tolerance' to meet the challenges due to climate change. The 35 ICAR institutes are involved in this project. This will also broaden the window of optimal growth conditions for cultivated crops under adverse climate, thereby increasing yield and reaping enhanced stabilized production under changed climatic conditions.

HORTICULTURE

In coconut, accession IND 125 S was recommended for cultivation in Karnataka, Tamil Nadu and Kerala, and hybrid IND 376 for Asom and Kerala. Two varieties, namely Kufri Nilima and Kufri Frysona, of potato were released for cultivation in Nilgiris hills of Tamil Nadu and Indo-Gangetic plains respectively. In spices, one variety each of ginger (Subhada) and cumin (RZ 345) was recommended for release.

Hybrid 1084 of dwarf stature mango with regular bearing was found promising. In banana, embryo rescue was standardized for wild species and hybrids involving wild species. Fingerprints of 44 grapes accessions were developed. Bhima Red variety of onion, developed through bulb to row selection method, possesses attractive red colour with yield around 30 tonnes/ha in *rabi* and yield potential of 50 tonnes/ha in late *kharif*.

The bud chip technology emerged as one of the most viable and economical alternatives in reducing the cost of sugarcane production, besides other advantages. Bacterial inoculants developed to alleviate harmful effect of salinity for enhanced growth and yield of wheat in saline soils were identified through sequencing of 16S rDNA. Leaf powders of *Vitex nigundi* - and *Polygonum*-treated food recorded least preference by *Rattus rattus* in laboratory, indicating their anti-rodent properties.

The double hedge row system of planting in guava, *aonla* and litchi proved best method for realizing high fruit yield. Under salinity stress, Thompson Seedless grape when grafted on B2-56 rootstock exhibited high level of stress tolerance. Wedge grafting in walnut practised under polytrench recorded high success rate. In arecanut, mined cropping with pepper, banana and citrus was suitable for north-eastern region. The intercropping systems involving ginger, tapioca, coleus, *amorphophallus* for black pepper; sweet potato+red gram; elephant foot yam with mango/sapota, potato+garlic have been identified for continuous and high yield.

Release of bio-control agents, namely *Mallada boninesis* and *Tamarixia*, in citrus orchards resulted in 31-33, 47-49 and 26-30 per cent reduction of black fly, psylla and leaf miner populations respectively. By releasing parasitoids, infestation on coconut leaf by leaf-eating caterpillar could be suppressed effectively. Soft rot of ginger could be managed by bio-fumigation using cabbage and mustard plant refuses. Marigold and yam bean were effective barrier crops for sweet potato weevil. The problem of fruit cracking in pomegranate could be reduced with application of boron and zinc.

A fermented drink/beverage from banana pulp and sorghum sprouts was produced from over-ripe bananas. The beverage can be preserved with flavour for 3 months under refrigerated conditions. For preparation of dried juice powder of citrus

fruits, fresh fruits of four *Citrus* species, namely citron, acid lime, Nagpur mandarin and *Mosambi*, as well as juice blend of pummelo and citron fruits were utilized to manufacture the value-added products.

Carbonated beverages were prepared from mango, passion fruit and custard-apple. Aloe Shampoo and Aloe Hair Cream, having shelf-life of more than 10 months, were developed from *Aloe vera*.

Extrudates were prepared from cassava blended with corn flour, *maida*, wheat flour and finger millet. High protein and dietary fibre-enriched pasta were prepared from cassava-*maida* blends.

A process patent (No. 1261/MUM/2008) has been filed by the Directorate of Medicinal and Aromatic Plants Research at Indian Patent Office, Mumbai, for preparation of pure aloin from aloe through extraction and purification. The new method is easy, quicker, efficient (recovery up to 90 per cent) and cost-effective (most of the solvent used can be recovere for reuse) and can be used for extraction of aloin of high quality from fresh, sun-dried, oven-dried or freeze-dried leaf exudates. As aloin purity of more than 90-95 per cent can be achieved by this method, it is suitable for industrial purposes.

NATURAL RESOURCE MANAGEMENT

Among the *Pseudomonas* strains isolated from rainfed regions of India, *Pseudomonas putida* 'GAP-P 45' was able to induce synthesis of novel proteins in the plants conferring tolerance to drought stress. Bagasse proved a successful biostimulator for the removal of ammonia and nitrate in shrimp aquaculture. This technology is available for adoption by farmers.

Gmelina-turmeric based agroforestry was found suitable for Humid and Sub-Humid regions. Gmelina with turmeric, sapota, teak-based agro forestry system proved useful for adoption in transitional and hilly zone with medium/deep soils under irrigated condition in Karnataka.

A pond-based farming technology (deep water rice in *khari*+watermelon, okra, spinach, chili in winter+on-dyke vegetables-fruits+fish inside pond) in a representative deep waterlogged areas (1-2.5 m water depth) of Puri district, Orissa enhanced the net water productivity to ₹ 7.21/m³ and net returns (₹ 22,100) in rice, Rainwater harvesting system was designed and agricultural diversification model (on-dyke horticulture, fisheries, cultivation of diversified field crops, short-term fruits like papaya, banana, floriculture like marigold, tuberose etc.) with harvested rain water was developed for small and marginal farmers with multiple use of water. The technology has been recommended for inclusion in the 'National Rural Employment Guarantee Act' for implementation in watersheds of eastern Indian states. A network of 47 model watersheds has been developed that provides a basis for undertaking projects as part of the natural watershed development programme. Water requirement of animals fed on cactus+grass/straw feed was considerably reduced, making the cactus a feed admixture of choice in the regions facing water-scarcity.

Climate change : With about 60 per cent of the cultivated area as rainfed, our agricultural production is strongly influenced by the movement of South-west monsoon. The rainfall for the period, June-September 2009, was 77 per cent of its long period average (LPA). The monsoon set in over Kerala on 23rd May, one week before its normal date of 1st June, it advanced rapidly and covered the entire country by 3rd

July, compared to its normal date of 15th July. Out of 526 meteorological districts for which data are available, 215 districts (41 per cent) of the meteorological districts received excess/normal rainfall and the remaining 311 districts (59 per cent) received deficient/scanty rainfall during the season that reflected adversely on the overall production of *Kharif* crops especially, rice and the coarse grains. Responding to the situation, the Council formulated and helped in implementation of the technology-driven contingency crop plan to mitigate the effects of drought like situation following erratic monsoon and to compensate the *kharif* crop losses during the rabi season. Crop-weather advisories were disseminated through the country-wide network of the ICAR research institutes, state agricultural universities and Krishi-Vigyan Kendras (KVKs). An area of 36,675 ha with the participation of 56,719 farmers was brought under demonstrations on resource conservation technologies in districts facing drought. The drought like situation followed by floods in several parts of the country was a cause of concern and more so because we are witnessing this phenomena with increasing frequency.

The studies under controlled environment conditions (free air CO₂ enrichment, open top chambers) and modeling showed that a rise in atmospheric carbon dioxide up to 550 ppm enhanced the yields of wheat, chickpea, greengram, pigeonpea, soyabean, tomato and potato between 14 per cent and 27 per cent. In coconut, arecanut and cocoa, increased CO₂ led to higher biomass production. A study on Sahiwal and Holstein Friesian crossbred (Karan-Fries) heifers revealed that HSP72 protein level increased due to thermal exposures, relatively higher in Karan-Fries (106 per cent) than Sahiwal (22.4 per cent). Resource conserving technology was the most cost effective strategy to reduce N loss and GHG emission, whereas integrated N management costs high for mitigating greenhouse gases (GHG) emission.

AGRICULTURAL ENGINEERING

Research and development in the ICAR on farm tools and machinery, post harvest and technology on cereals, pulses, oilseeds, cotton, jute, natural resins, gums and lac, and removable energy sources are being carried out by the Central Institute of Agricultural Engineering, Bhopal; Central Institute of Post Harvest Engineering and Technology, Ludhiana; Central Institute of Research on Cotton Technology, Mumbai; National Institute for Research on Jute and Allied Fibres, Kolkata and Indian Institute for Natural Resins and Gums, Ranchi. The salient achievements of these Institutes are given below.

A number of implements such as manure spreader, hill drop planter, cumin planter, baler with reaping attachment were developed as tractor-operated machinery. A power tiller-operated two-row canopy sprayer was developed for cotton and pigeonpea that can remove more than 550 bud chips in an hour by a person. A suitable experimental model of continuous type animal feed block making machine was fabricated.

Pomegranate aril extractor is capable of processing whole pomegranate at a rate of approximately 30-35 fruits/minute, and this technology was transferred for commercial exploitation.

In a poultry litter-based biogas plant the use of poultry litter increased the yield of biogas generation by 17 per cent (from 66 to 83 per cent) compared to normal cowdung-based biogas plant. The briquettes made from soyabean and pigeonpea stalks can be used for domestic application, in gasifier and commercial boilers. A

rapid process for ethanol production from kinnow waste (peel+pulp) using galactose adapted yeast cells was developed.

A technology was evolved for development of pulp and paper by mechanical pulping process (chemical free) from date palm leaf and carry bag, writing pad etc. The technology can be transferred to rural sector at low capital investment. A lacbased formulation was developed for fruit coating applications on apple and citrus fruits like kinnow and orange. The formulation yielded good results in respect of gloss and firmness to kinnow. Shellac-based dental plates were prepared. Natural-synthetic composite geotextile was used for protection of a part of the bank of Mayurakshi River (rainfed river) in West Bengal.

A software Cotton Bale Manger was developed to perform design and generation of bale identification tag and to interface this bale tag with the bale database management software. Another software GINERP for managing a modern ginnery has already been commercialized.

ANIMAL SCIENCES

The role of A1 and A2 beta casein milk variants in human health is a matter of concern for scientific investigations. The B-casein A1/A2 frequency data indicated predominance of A2 variant (0.987) in zebu cattle breeds, while buffaloes showed only A2 milk type. The results point towards the origin of A2 variant in *Bos indicus* cattle. This is the first report of A1/A2 milk variant in majority of Indian zebu cattle and riverine buffalo breeds. An association study showed higher adult body weight of the individuals carrying the allele in yak. This marker information could be incorporated in marker-assisted selection for higher adult body weight in yak, as the body weight determines draught and pack ability and quantity of meat production.

The average age at first calving of Frieswal cows was 979.56 days. The breeding value of Haryana sires for milk yield and draught ability confirmed that these 2 traits are of different nature. "Garima" a cloned buffalo calf was born through a new and advanced 'Hand-guided cloning technique', at the NDRI, Karnal on 6th June, 2009. The growth of the calf is normal and has good health status. For the first time a mithun calf was born through Artificial insemination. The introduction of *FecB* gene from Garole into Malpura and backcrossing of Genetically Modified with Malpura increased body weights of their lambs, and GMM ewes produced 40 per cent twins in the flock. Layer poultry variety Gramapriya was widely accepted by the farmers of Kashmir Valley.

To achieve targeted growth rate of 6 per cent in livestock output, progress in livestock infrastructure, institutional efforts and availability of live stock feed is required to be accelerated by about 50 per cent. Supplementation of zinc and copper from organic sources was more effective in inducing estrus and anoestrus crossbred cows. Methane emission from fresh dung on dry-matter basis was lower in zebu cattle than crossbred cattle. Green fodder feeding increased milk conjugated linoleic acid in cows and buffaloes and it has anti-cancer property. It increases up to 310 per cent in *ghee* prepared by indigenous method. Commercially available microbial feed additives enhanced growth by 12.0 per cent and feed intake by 11.6 per cent in fattening lambs for mutton production. As supplementation of concentrate mixture during post-weaning stages improved body weights of lambs, farmers fetched 25 to 33 per cent more price in the market.

An antioxidant (Vitamin E) in combination with liver stimulant was found detrimental for egg production in birds. Combination of melatonin and toxin binder alleviated adverse effects of aflatoxicosis in broilers.

The foot-and-mouth virus typing ELISA kits were manufactured, which ensured uniformity in application and test result across the country. Establishment of an international foot-and-mouth Disease Reference Laboratory will facilitate Global participation and eradication of the disease from South Asia.

A 'FROGIN' software was developed for precise prediction and forecasting of haemonchosis in sheep. Complete *H/N* and *F* genes of velogenic New castle disease virus were cloned for use as bi-cistronic DNA vaccine. PLG nano-particles encapsulating outer membrane proteins of *Salmonella* Gallinarum induced good IgA antibody in chickens.

To safeguard the livestock production, a high security animal disease lab with P-4 measures was established. It played a pivotal role in providing diagnostic services for avian influenza besides developing vaccine.

Microbial assays were developed, which are useful in dairy industry as "ON FARM" milk screening test for beta-lactam group. Health benefits of cow *ghee* were validated. Cow *ghee* decreases initiation and progression of mammary and gastro-intestinal tract cancer in rats.

FISHERIES

Barcoding of five species of tuna was carried out and deposited with the gene bank of National Centre for Biotechnology Information (<http://www.ncbi.nlm.nih.gov/taxonomy>). Chemo-litho-autotrophic bacteria, which can be used for bioremediation of shrimp-farm discharge, were identified. A molecular tool was developed for the detection of these bacteria and is being offered to private entrepreneurs for its commercialization. Forensic investigations using DNA barcoding helped in identification of whale shark (*Rhynchodon typus*) meat designated as endangered species. And it can be used effectively in curtailing illegal trade.

Puntius pulchellus locally called *Haragi Meenu* in Karnataka, a threatened species of peninsular carp endemic to the Krishna river basin, was induced-bred for the first time. A technology for round-the-year seed production of Asian seabass was developed. Electron beam irradiation method could be devised to reduce anti-nutritional factors in plant-based aquafeed ingredients.

The marine fish landings in India during 2008-09 touched the 3.21 million tonnes mark with an increase of about 0.327 million tonnes (11.3 per cent) against the estimates of the previous year. The percentage share of fishermen in consumer rupee has also increased over the years. High-value fish like coastal tuna and oceanic tuna registered growth level of 23 and 39 per cent respectively. The targeted fishery for the deep sea sharks on the west coast landed more than 14 species of sharks as well as chimaeras. Biosecured zero water exchange system technology is ready for on-farm demonstration and dissemination to farmers.

System for the storage of live fish with aeration was designed, developed and tested. The FRP silo for fish culture/holding system, which is the first of its kind in the country, was designed and fabricated. The protein content could be enhanced to 11-12 per cent, with whey protein concentrate, defatted soya flour and prawn paste.

Bonding applications was up scaled to 5.0 kg level and is ready for transfer. The solid adhesive was tested on various surfaces by a industry in Kerala.

AGRICULTURAL EDUCATION

Human Resource Development programmes and talent search in agricultural sciences to meet the future needs of agricultural research, education and extension received priority attention. Efforts are being made for continuous upgradation and maintenance of standards and quality of higher agricultural education in the country through professional support and financial aid to the Agricultural Universities. The National Academy of Agricultural Research Management, Hyderabad, started a 2-year post-graduate diploma programme on management (Agriculture) besides 2 more programmes on Information Technology Management and Intellectual Property Management. Accreditation was granted to 5 State Agricultural Universities and to the MBA programme of the Rajasthan Agricultural University, Bikaner. Thus 31 institutions are accredited for higher quality education.

Construction of museum one each in 38 State Agricultural Universities, allocation of Rural Awareness Work Experience Programme to 44 Agricultural Universities and institution of “Norman Borlaug Chair in Agricultural Biotechnology for Crop Improvement” are expected to improve the quality of education. To face the emerging challenges, the Model Act for Agricultural Universities in India was revised and communicated to all Agricultural Universities for adoption. A national core group formed by the ICAR, has revised the course curricula and syllabi of all post-graduate (Masters and Doctoral) programmes to make them utilitarian, updated and competitive. A new component of International fellowship was introduced for pursuing Ph.D. programme at the Indian Agricultural Universities and Overseas Universities for Indian and overseas candidates.

AGRICULTURE EXTENSION

During 2009-10, Krishi Vigyan Kendras (KVKs) have assessed appropriate technologies by conducting 26,028 trials in 8,254 locations. Towards empowerment of rural women, KVKs have also assessed 99 technologies under the thematic area of drudgery reduction, health and nutrition involving 280 locations. A total of 86,285 frontline demonstrations involving an area of 51,101 ha were conducted by KVKs. Under the frontline demonstrations conducted, 76,206 were on oilseeds, pulses, cotton and other important crops covering an area of 30,664 ha.

A total of 4,600 demonstrations on-farm implements covering an area of 4,212,23 ha were conducted. Further, 5,479 demonstrations were conducted on 16,225 units of various enterprises including dairy, piggery, poultry, sheep and goat rearing, fisheries, bee-keeping, mushroom cultivation, nutrition gardening, sericulture, organic composting, home science and bio-products. In the ease of farmers' capacity building, 39,912 training programmes were organized, benefiting 11.27 lakh farmers and farm women. As many as 12,978 skill-oriented training programmes were organized for 3.10 lakh rural youths. A total of 3,929 training programmes were conducted covering 103,428 extension functionaries of state departments. The KVKs also organized 3.04 lakh extension programmes, benefitting 106.85 lakh farmers and extension personnel to create awareness about improved agricultural technologies. The KVKs have conducted 240 training programmes and 128 crop demonstrations by utilizing demonstration unit of rain-water harvesting with micro-irrigation system.

The KVKs have produced seeds, planting materials, bio-products, livestock material, poultry and fisheries to a tune of ₹ 1,304.47 lakh lakh quintal of seeds including cereals, oilseeds, pulses commercial crops, vegetables, flowers, spices, and fodder and fibre crops. Besides, KVK sproductet 146.09 lakh seedings and saplings and provided to 159,000 farmers.

The ICAR empowered women through Gender Knowledge Centre Portal (knowledgecentre.drwa.org), Database on women in agriculture, Reference system in which 1038 references were entered into database, and small-scale entrepreneurship in livestock production. The village level para extension workers created public awareness on scientific farming methods, and demand for farm information and technology. The All India Coordinated Research Project on Home Science showed significant results in gender database, drudgery reduction, ensuring food and nutritional security, and utilization of under-utilized agro-and animal-based resources.

Information, Communication and Publicity Services: The council has redesigned and further developed website (www.icar.org.in). The *ICAR News* and *ICAR Reporter* were made available on-line, besides several other publications. Guidelines were developed for bringing uniformity in the websites of ICAR institutes. The ICAR has decided to allow open access to its research journals online for the benefit of students, researchers and farmers for free nationally and internationally. The journals will be accessible from the ICAR web site www.icar.org.in, since March 2010 onwards. The ICAR institutes/ State Agricultural Universities are being connected to National Knowledge Network through an electronic digital broadband to encourage sharing of resoures for collaborative research and education. Under “e-Publishing and Knowledge System in Aricultural Research”, a fully automated, on-line electronic Publishing system is being implemented for eleven journals/periodicals. More than 1,000 research articles/features were pulished in the noted periodicals of the ICAR during the year. A professional get-up was imparted to papular periodicals that included design, layout and contents.

NATIONAL AGRICULTURAL INNOVATION PROJECT

The National Agricultural Innovation Project has made significant progress in approving and grounding 187 sub-projects (39 in component component I, 51 in II, 36 in compnent III, and 61 in component IV) at a total outlay of about ₹ 1,017 crore.

In Component I (Strengthening ICAR as Catalyzing agent of Management of Change in the Indian NARS), more than 3,000 theses were digitized and full text data are uploaded (<http://www.hau.ernet.in>). The ‘Agropedia’ has further diversified and more than 30,000 people from 165 countries visited <http://www.agropedia.net>. a AQUA SMS and voice services are reaching over 10,000 farmers regularly. Consortium for e-Resources in Agriculture (CeRA) continues to attract more users with cumulative hits on their web site (<http://www.cera.jccc.in>) crossing the one million mark and 0.36 million downloads.

In Component II (Research on Production to Consumption Systems), significant achievements include development of cheaper concentrate mixture feed for livestock production, standardization of processes for preparation of value-added products from sea buckthorn, development of clonal propagation technology for industrial agroforestry, preparation of value-added extruded products from tuna red meat, and formulation of SILO feed from tuna processing waste.

In Component III (Research on Sustainable Rural Livelihood Security), through approved projects 102 disadvantaged districts (out of 150 disadvantaged districts in 27 States of the country) are covered. The total number of targeted farmers/agricultural labourers includes 1,30,000. The major crop interventions across all clusters included introduction of improved variety of crops, introduction of horticultural crops, enhancement in cropping intensity and intercropping. Income-generating activities such as lac cultivation, mushroom cultivation, vermi-composting, tasar silk cultivation were introduced wherever it had potential. Motivation of more than 48,000 farmers in backward areas with large population of tribals; adoption of suitable drought mitigation measures with suitable advice to the farmers; Introduction of lac cultivation in Jharkhand, Chhattisgarh and Madhya Pradesh as a major income-generating activity, particularly under rainfed/dryland situations are some of the significant achievements.

In Component IV (Basic and Strategic Research), the last sub-project 'Bioprospecting of genes and allele mining for biotic stress tolerance' is the largest in NAIP (₹ 57 crore budget and 36 partners). It is a bold attempt to bring in a large number of scientists together to attempt a far-reaching initiative in basic and strategic research cutting across all species barriers (animals, microbes and plants). Significant achievements include development of novel micro-well chip based biosensor; revelation of methodology for isolation and purification of microbial polysaccharides; isolation of nitrate-reducing microbes having potential to be used as probiotics in mitigating methane emission for eco-friendly livestock production.

RESEARCH FOR TRIBAL AND HILLS REGION

The research carried out at the institute in North-West Himalayas led to release of 10 varieties/hybrids of different crops for different agro-climatic regions of the country.

A total of 23.38 tonnes breeder seeds of 51 released varieties/inbred lines was produced. In addition, 1.61 tonnes nucleus seeds of 42 released varieties was produced. Out of breeder seed producing agencies to take up further multiplication.

Seven inbred lines of maize were registered with the National Bureau of Plant Genetic Resources for high tryptophan and lysine content.

The research work conducted at the institute in North-East Himalayas led to release a cold-tolerant variety NEH Megha Rice 3. Besides, two upland genotypes of rice (RCPL 1-115 and RCPL I-116) were developed for Mizoram, Nagaland and Manipur regions. Both the genotypes are tolerant to acidic soils and brief moisture stress and moderately tolerant to leaf and neck blast. Grains possess sufficient dormancy to withstand the effect of rain which frequently occurs at maturity stage.

A 4-row pre-germinated paddy seeder was developed for hilly region, having advantage of line sowing in hilly areas with narrow terraces having widths upto 1m. A batch-type tray dryer having about 600 Kg capacity was designed and developed at this institute in collaboration with the other ICAR institute. Overall quality of the dried product was very good, without any loss in colour, flavour and aroma.

The institute has produced piglets out of AI with frozen semen. Boar semen was successfully frozen using conventional method of freezing that does not involve costly equipment like programmable cell freezer. The standardized technology shall have immense applicability in breed improvement programme of pigs and to produce superior germplasm pigs at farmer's field, even in remote areas.

PCR-based protocols for rapid detection and confirmation of infectious bacterial pathogens of livestock and poultry in the North-eastern region were standardized.

ISLANDS (ANDAMAN AND NICOBAR)

Five varieties of rice, and two varieties of sweet-potato were developed as a result of a research work conducted at the institute in Andaman and Nicobar Islands.

A 3-tier strategy was developed for water resource development, namely development of plastic film-lined tanks on the top of hills, recharge structure-cum-well system in the mid-hills and development of open dug wells in the valley areas. Such systems are very useful for utilization of water during dry periods.

A total of 483 bacteria, 117 *Trichoderma* spp, 32 *Ralstonia solanacearum* and 35 fungal pathogens were isolated. Novel strains of bacteria were identified as *B. subtilis*, *B. pumilus*, *B. amyloiquefaciens* and *Enterobacter cloacae*. Of the total species isolated *T. asperellum*, *T. erinaceum*, *T. avalisporum* and *T. brevicompactum* were recorded for the first time from Andaman and Nicobar Islands.

Brooders of damsel fish species, namely *Amphiprion akallopsis*, *Amphiprion ephippium* and *Premnas biaculeatus*, were collected from reefs and maintained in hatchery for the development of suitable breeding pair. The maroon damselfish, *Premnas biaculeatus*, could bred repeatedly five times in captivity.

The distribution and abundance of rotifers, a potential feed for larvae of damsel fishes in Andaman, was explored by a survey from brackishwater areas in South Andaman. Species like *Brachionus plicatilis*, *B. rotundiformis*, *B. urceolaris*, *B. murrayi*, *B. calyciflorus*, *B. falcatus* and *Kellicotia* sp. were identified. The presence of *Brachionus plicatilis* species complex is a notable character of the rotifers present in Andaman waters.

Backyard duck rearing is an integral part of various farming systems in the islands. The Pekin x Chara-Chembelli crossbred showed good performance, and can be used as a meat-purpose duck under backyard condition.

INTELLECTUAL PROPERTY PORTFOLIO MANAGEMENT

Patents were granted to the ICAR in 8 fields of invention. The ICAR institutes secured 4 Trademarks to distinguish the ICAR products. Six copyrights were registered by the ICAR institutes to protect their software from unauthorized copying. The premise of centralized planning and decentralized execution for Intellectual Property Management in the ICAR was strengthened. Some of the ICAR institutes have entered into MoUs with private and public sector companies for commercialization of plant varieties/hybrids.

5 Culture and Tourism

CULTURE plays an important role in the development agenda of any nation. The mandate of the Ministry of Culture revolves around the functions like preservation and conservation of Ancient Cultural Heritage and promotion of Art and Culture both Tangible and Intangible in Country. The functional spectrum of the Ministry is rather wide, ranging from generating Culture awareness at the grassroot level to Promoting Cultural exchanges at an international Level.

The administrative set up consists of various Bureaus and Divisions of the Ministry headed by a Secretary, with its two attached offices, six subordinate offices and thirty three autonomous organizations, which are fully funded by the Government.

Broadly, this Ministry is working on the protection, development and promotion of all types of Heritage and culture namely, Tangible Heritage, Intangible Heritage and Knowledge Heritage. In addition the Ministry also harbours the responsibility of Gandhian Heritage and Commemoration of important historical events and centenaries of great personalities.

INTANGIBLE CULTURAL HERITAGE

LALIT KALA AKADEMI

To promote and propagate understanding of Indian art, both within and outside the country, the Government of India established Lalit Kala Akademi (National Akademi of Arts) at New Delhi on 5 August 1954. The Akademi has regional centres called Rashtriya Lalit Kala Kendras at Lucknow, Kolkata, Chennai, Garhi in New Delhi, Shimla and Bhubaneswar with workshop facilities in painting, sculpture, print-making and ceramics.

Since its inception, the Akademi has been organising national exhibition of contemporary Indian art with 15 national awards, each of ₹ 50,000. Every three year, the Akademi also organises Triennial India, an International exhibition of contemporary art in New Delhi.

The Akademi honours eminent artists and art historians every year by electing them as Fellows of the Akademi. To propagate Indian art outside, the Akademi regularly participates in International Biennials and Triennials abroad and also organises exhibitions of works of art from other countries. To foster contracts with artists from outside, it sponsors exchange of artists with other countries under the various Cultural Exchange Programmes and Agreements of the Government.

The Lalit Kala Akademi accords recognition to art institutions/associations and extends financial assistance to these bodies as well as State Academies. It also gives scholarships to deserving young artists belonging to its regional centres. Under its publication programme, the Akademi brings out monographs on the works of Indian contemporary artists in Hindi and English and books on contemporary, traditional, folk and tribal arts authored by eminent writers and art critics. The Akademi also brings out bi-annual art journals, *Lalit Kala Contemporary* (English), *Lalit Kala Ancient* (English) and *Samkaleen Kala* (Hindi). Apart from these, it brings out large size multi-colour reproductions of contemporary paintings and graphics from time to time. The Akademi has started a regular programme on research and

documentation. Scholars are given financial assistance to undertake projects in contemporary projects on various aspects of Indian society and culture.

SANGEET NATAK AKADEMI

Sangeet Natak Akademi, India's National Academy of Music, Dance and Drama, may be regarded as a pioneer in the process of creation of modern India that led politically to India's freedom in 1947. The ephemeral quality of the arts, and the need for their preservation led to the adapting of a democratic system in which a common man had the opportunity to learn, practice and propagate the art. Within the first few decades of the twentieth century, public perception of responsibility for both preservation and development of the arts had started inclining towards the state.

The first comprehensive public appeal to government in this direction was made in 1945, when the Asiatic Society of Bengal submitted a proposal for the creation of a National Cultural Trust consisting of three academies - an Academy of Dance, Drama, and Music, an Academy of Letters, and an Academy of Art and Architecture.

The entire question was reconsidered after independence, in a Conference on Art held in Kolkata in 1949, and two Conferences, on Letters, and the other on Dance, Drama, and Music, held in New Delhi in 1951. These Conferences convened by the Government of India finally recommended the creation of three national academies: an Academy of Dance, Drama, and Music, an Academy of Letters and an Academy of Art.

The National Academy of Dance, Drama, and Music, named Sangeet Natak Akademi, was the first of these entities to be established by a resolution of the Ministry of Education, headed by Maulana Abul Kalam Azad, signed on 31 May 1952. On 28 January 1953, Sangeet Natak Akademi was inaugurated by the then President of India, Dr Rajendra Prasad.

The Akademi's charter of functions contained in the 1952 resolution was expanded along the original lines in 1961, when Sangeet Natak Akademi was reconstituted by the Government as a society and registered under the Societies registration Act of 1860 (as amended in 1957). These functions are set down in the Akademi's Memorandum of Association, adopted at its registration as a society on 11 September 1961.

Since its inception the Akademi has worked towards building up a unified structure of support for the practice of music, dance and drama in India. This support encompasses traditional and modern forms, and urban as well as rural environments. The festivals of music, dance and drama presented or promoted by the Akademi are held all over India. The great masters of the performing arts have been elected as Fellows of the Akademi. The Sangeet Natak Akademi Awards conferred annually on eminent artists and scholars are considered the most coveted honours in the field of performing arts. Thousands of institutions across the country, including many in the remote areas, engaged in teaching or promotion of music, dance and theatre have received financial assistance for their work, from the Akademi, as do researchers, authors and publishers in relevant disciplines.

The extensive recording and filming of the performing arts carried on by the Akademi since its inception have resulted in a large archive of audio-and video-tape, 16-mm film, photographs and transparencies, and remains the single most important resource for researchers in the field of performing arts of India.

The Akademi's Gallery of Musical Instruments has a collection of more than 600 instruments of prominence and has been the source of a great deal of published

documentation over the years. The library of Sangeet Natak Akademi receives about 150 Indian and Foreign Periodicals. The total collection of the Library now stands at 24283 books. The Audio Visual library includes a large number of discs, cassettes and audio & video CDs. The collection of Audio visuals now stands 9827 discs, 761 pre recorded cassettes from the archives of Akademi, 92 video cassettes of dance, drama, music.

The Akademi also establishes and looks after institutions and projects of national importance in the field of performing arts. Chronologically, the Jawaharlal Nehru Manipuri Dance Academy in Imphal, the premier institution in Manipuri dance and music established in 1954, is the first of these institutions. In 1959 the Akademi established the National School of drama and in 1964 the Kathak Kendra, both being based in Delhi. The Akademi's other projects of national importance are in *Kutiyattam* theatre of Kerala, which commenced in 1991 received recognition from UNESCO as a Master piece of oral and intangible heritage of humanity in 2001. The project on *Chhau* dance of Orissa, Jharkhand and West Bengal began in 1994. The project support to *Sattriya* music, dance, theatre and allied arts of Assam was started in 2002.

As the apex body specialising in the performing arts, the Akademi also renders advice and assistance to the Government of India in the task of formulating and implementing policies and projects in the field. Additionally, the Akademi carries a part of the responsibilities of the State for fostering cultural contacts between various regions in India, and between India and other countries. The Akademi has held exhibitions and major festivals in foreign countries.

PERFORMING ARTS

MUSIC

Two main schools of classical music—*Hindustani* and *Carnatic* continue to survive through oral tradition being passed on by teachers to disciples. This has led to the existence of family traditions called *gharanas* and *sampradayas*.

DANCE

Dance in India has an unbroken tradition of over 2,000 years. Its themes are derived from mythology, legends and classical literature, two main divisions being classical and folk. Classical dance forms are based on ancient dance discipline and have rigid rules of presentation. Important among them are *Bharata Natyam*, *Kathakali*, *Kathak*, *Manipuri*, *Kuchipudi* and *Odissi*. *Bharata Natyam* though it derives its roots from Tamil Nadu, has developed into an all India form. *Kathakali* is a dance form of Kerala. *Kathak* is a classical dance form revitalised as a result of Mughal influence on Indian culture. Manipur has contributed to a delicate, lyrical style of dance called *Manipuri*, while *Kuchipudi* is a dance form owing its origin to Andhra Pradesh. *Odissi* from Orissa, once practised as a temple dance, is today widely exhibited by artistes across the country. Folk and tribal dances are of numerous patterns.

Both classical and folk dances owe their present popularity to institutions like Sangeet Natak Akademi and other training institutes and cultural organisations. The Akademi gives financial assistance to cultural institutions and awards fellowships to scholars, performers and teachers to promote advanced study and training in different forms of dance and music, especially those which are rare.

THEATRE

Theatre in India is as old as her music and dance. Classical theatre survives only in some places. Folk theatre can be seen in its regional variants practically in every

region. There are also professional theatres, mainly city-oriented. Besides, India has a rich tradition of puppet theatre, prevalent forms being puppets, rod puppets, glove puppets and leather puppets (shadow theatre). There are several semi-professional and amateur theatre groups involved in staging plays in Indian languages and in English.

SAHITYA AKADEMI

Sahitya Akademi is the Indian National Academy of Letters meant to promote the cause of Indian literature through publications, translations, seminars, workshops, cultural exchange programmes and literary meets organised all over the country. The Akademi was founded in March 1954 as an autonomous body fully funded by the Department of Culture. It was registered as a Society in 1956 under the Societies Registration Act, 1860. The Akademi has recognised 24 languages. It has an Advisory Board for each of the languages that suggests various programmes and publications in the concerned languages. There are four Regional Boards to promote regional interaction among the languages of the North, West, East and South. Besides its Head Office in New Delhi, it has four offices : in Kolkata, Mumbai, Bangaluru and Chennai. The Akademi has two Translation Centres at Bangalore and Kolkata, besides a Project Office at Shillong for promotion of oral and tribal literature and an Archive of Indian literature in Delhi. It maintains a unique multilingual library in New Delhi and at its regional offices at Bangaluru and Kolkata, having about 1.5 lakh books in over 25 languages.

The three fellowships by Sahitya Akademi are:-

1. Sahitya Akademi Honorary Fellowship
2. Anand Fellowship
3. Premchand Fellowship

Sahitya Akademi Honorary Fellowship is the highest honour conferred by the Akademi on a writer, by electing him as its Fellow. This honour is reserved for the 'immortals of literature' and limited to twenty-one only at any given time. Anand Fellowship instituted in 1996 in the name of the great scholar and aesthete Dr. Ananda Coomaraswamy is offered to scholars from Asian Countries to pursue literary projects of their choice. Sahitya Akademi also instituted a Fellowship named after Premchand during his 125th Birth Anniversary in 2005. This Fellowship is given to scholars doing research on Indian literature or to creative writers from the countries of the SAARC region other than India. Every year since its inception in 1954, the Sahitya Akademi Awards Prizes to the Most outstanding books of literary merit published in any of the major Indian languages recognised by the Akademi. The award amount, which was ₹ 5,000 at the time of inception, had been enhanced to ₹ 10,000 from 1983, ₹ 25,000 from 1988, ₹ 40,000 from 2001 and is now ₹ 50,000 since 2003. The first Awards were given in 1955.

The Akademi publishes books in 24 languages including translations of Award-winning works, monographs on the great pioneers of Indian literature, histories of literature, Indian and foreign classics in translation, anthologies of fiction, poetry and prose, biographies, Register of Translators, Who's Who of Indian Writers, National Bibliography of Indian Literature and Encyclopedia of Indian Literature. So far, the Akademi has published over 5,600 books in these different categories. It has three journals, *Indian Literature* (bi-monthly in English), *Samkaleena Bharatiya Sahitya* (bi-monthly in Hindi) and *Sanskrita Pratibha* (half-yearly in Sanskrit). Every year the

Akademi publishes 250-300 books on an average. It has certain special projects like the *Ancient Indian Literature*, *Medieval Indian Literature* and *Modern Indian Literature* together constituting ten volumes of the best of Indian writing over five millennia. It has also launched a new project *Encyclopedia of Indian Poetics*.

Sahitya Akademi holds a number of regional, national and international seminars every year on various topics in literature, literary history and aesthetics. The Akademi also regularly holds Translation Workshops.

The Akademi holds an annual week-long 'Festival of Letters', usually in February with Award-giving ceremony, Samvatsar Lecture and a National Seminar. The Akademi also introduced a new series of programmes entitled *Sur Sahitya* as part of the Golden Jubilee celebrations in 2004-05.

NATIONAL SCHOOL OF DRAMA

The National School of Drama (NSD) - one of the foremost theatre institutions in the world and the only one of its kind in India was set up by Sangeet Natak Akademi in 1959. Later in 1975, it became an autonomous organisation, totally financed by Department of Culture. The objective of NSD is to train students in all aspects of theatre, including theatre history, production, scene design, costume design, lighting, make-up, etc. The training course at NSD is of three years duration. Each year, 20 students are admitted to the course. The eligible applicants for admission to the course are screened through two stages. The Diploma of NSD is recognised by the Association of Indian Universities as equivalent to M.A. Degree for appointment as teachers in colleges/universities and for purposes of registration for Ph.D.

The School has a performing wing, a *Repertory Company* which was set up in 1964 with the dual purpose of establishing professional theatre on one hand and continuing with the regular experimental work on the other. The NSD has made a significant contribution in promoting children's theatre. The *Theatre-in-Education Company* (renamed as Sanskar Rang Toli) was founded in 1989 and has been actively involved in production of plays for children, organising summer theatre workshops in the schools of Delhi and also promoting children's theatre through Saturday Club. Since 1998, the School has organised National Theatre Festival for Children christened 'Jashne Bachpan' every year. The first ever National Theatre Festival christened *Bharat Rang Mahotsav* was held from 18 March to 14 April 1999 to commemorate the 50th year of India's Independence. Encouraged by the success of the first *Bharat Rang Mahotsav*, it has been made an annual feature.

To reach a vast majority of theatre artists in various states with diverse languages and cultural backgrounds, who cannot have access to the regular training course provided by the School, a short-term teaching and training programme titled 'Extention Programme' was started in 1978. Under this programme, the School organises workshops in collaboration with the local theatre groups/ artists and these programmes are invariably held in the local languages. The workshops could be broadly divided under three categories, Production Oriented Workshops, Production Oriented Children Workshops and Teaching and Training Programme in Theatre. The School has also set up a Regional Research Centre at Bangalore to cater to the theatrical needs of the four Southern States and Puducherry.

Another important activity of the School is the publication of textbooks on theatre and arrange the translation of important books on theatre from English into Hindi.

INDIRA GANDHI NATIONAL CENTRE FOR THE ARTS

The Indira Gandhi National Centre for the Arts (IGNCA) is a premier national institution engaged in the pursuit of knowledge on arts and culture and in the exploration of relationships of arts and culture with various disciplines of learning and diverse aspects of life. Established in 1987 in the memory of the Late Prime Minister Indira Gandhi, it is involved in multifarious activities such as research, publication, training, documentation, dissemination and networking and is poised to grow into a large repository of information pertaining to the arts in India. The IGNCA seeks to place the arts within the natural environment by providing a forum for creative and critical dialogue between the diverse arts, between the arts and sciences, between arts and the traditional and current knowledge systems. The IGNCA promotes interaction and understanding between diverse communities, regions, social strata, and between India and other parts of the world.

The IGNCA has six functional Units - *Kala Nidhi*, the multi-form library; *Kala Kosa*, devoted mainly to the study and publication of fundamental texts in Indian Languages; *Janapada Sampada*, engaged in lifestyle studies; *Kaladarsana*, the executive unit which transforms researches and studies emanating from the IGNCA into visible forms through exhibitions; Cultural Informatics Lab, which applies technology tools for cultural preservation and propagation; and *Sutaradhara*, the administrative section that acts as a spine supporting and coordinating all the activities. The Member Secretary is the Executive head both academic and administrative divisions. The IGNCA has a trust (Board of Trustees), which meets regularly to give general direction about the Centre's work. The Executive Committee, drawn from among the Trustees, functions under a Chairman. The Committee acts as a link between the Trust and the IGNCA.

The IGNCA has three Regional Centres in India

- * The IGNCA has a Southern Regional Centre (SRC) headquartered in Bangaluru. Its establishment in 2001 was aimed at intensifying the Centre's studies on the southern region's art and cultural heritage.
- * The Centre's office in Varanasi is an extension of the *Kalakosa* Division. This office gives academic input and support of Indological and Sanskrit studies of *Kalakosa*.
- * The field centre of the IGNCA for the North East is based in Guwahati. Its main task is to collaborate in programmes relating to the culture-rich communities in the north eastern region.

CENTRE FOR CULTURAL RESOURCES AND TRAINING

The Centre for Cultural Resources and Training (CCRT) is one of the premier institutions working in the field of linking education with culture. The Centre was set up in May 1979 as an autonomous organisation by the Government of India. Today it operates under the administrative control of Ministry of Culture, Government of India. With headquarters in New Delhi, it has three regional centres at Udaipur, Hyderabad and Guwahati.

The broad objectives of CCRT have been to revitalise the education system by creating an understanding and awareness among students about the plurality of the regional cultures of India and integrating this knowledge with education. The main thrust is on linking education with culture and making students aware of the importance of culture in all development programmes. One of the CCRT's main

functions is to conduct a variety of training programmes for in-service teachers drawn from all parts of the country. The training provides an understanding and appreciation of the philosophy, aesthetics and beauty inherent in Indian art and culture and focuses on formulating methodologies for incorporating a culture component, in curriculum teaching. This training also stresses the role of culture in science and technology, housing, agriculture, sports, etc. An important component of training is to create awareness amongst students and teachers of their role in solving environmental pollution problems and conservation and preservation of the natural and cultural heritage. To fulfill these objectives, the Centre organises variety of training programmes for teachers, educators, administrators and students throughout the country.

The CCRT organises academic programmes on Indian art and culture for foreign teachers and students on special request. Workshops are conducted in various art activities like drama, music, narrative art forms, etc., to provide practical training and knowledge in the arts and crafts. In these workshops, teachers are encouraged to develop programmes in which the art form can be profitably utilised to teach educational curriculum.

The CCRT organises various educational activities for school students, teachers and children belonging to governmental and non-governmental organisations under its extension and community feedback programmes which includes educational tours to monuments, museums, art galleries, craft centres, zoological parks and gardens, camps on conservation of natural and cultural heritage, camps on learning crafts using low cost locally available resources, lectures and demonstrations by artists and experts on various art forms, demonstrations by artists and craft persons in schools. These educational activities emphasise the need for the intellectual and aesthetic development of the students.

Over the years, CCRT has been collecting resources in the form of scripts, colour slides, photographs, audio and video recordings and films. Each year the CCRT's documentation team conducts programmes in different parts of the country with the objective of reviving and encouraging the art and craft forms of rural India. The Centre also prepares publications, which attempt at providing an understanding and appreciation of different aspects of Indian art and culture.

One of the most important functions of CCRT is to implement the Cultural Talent Search Scholarship Scheme, which was taken over from the Department of Culture in 1982. The scheme provides scholarships to outstanding children in the age group of 10 to 14 years, studying either in recognised schools or belonging to families practicing traditional performing or other arts to develop their talent in various cultural fields particularly in rare art forms. The scholarships continue till the age of 20 years or the first year of a University degree.

The Centre has instituted CCRT Teachers Award which is given every year to selected teachers for the outstanding work done by them in the field of education and culture. The Award carries with it a citation, a plaque, an *angavastram* and a cash prize of ₹ 10,000.

ZONAL CULTURAL CENTRES (ZCC)

Zonal Cultural Centres have been conceptualised with the aim of projecting cultural kinship which transcends territorial boundaries. The idea is to arouse awareness of the local cultures and to show how these merge into zonal identities and eventually

into the rich diversity of India's composite culture. These centres have already established themselves as a premier agency in the field of promotion, preservation and dissemination of culture in the entire country. They are not only promoting performing arts but also making a significant contribution in the associated field of literary and visual arts. The seven zonal cultural centres were established under this scheme during 1985-86 at Patiala, Kolkata, Thanjavur, Udaipur, Allahabad, Dimapur and Nagpur. The participation of states in more than one zonal cultural centre according to their cultural linkage is a special feature of the composition of the zonal centres. With the approval of the Cabinet a Corpus fund for each ZCC was created by Government of India and the participating State Governments to enable the ZCCs to finance their activities from the interest earned on the investment of this Corpus Fund. The Government of India has provided a grant of Rs 5 crore to each ZCC and each constituent state has been provided Rs one crore. In the event of a State being a member of more than one centre, the State's contribution would not exceed Rs one crore in all. From 1993 all the Zonal Cultural Centres have been sending their folk artistes for participation in the Republic Day Folk Dance Festival. This festival is inaugurated by the Hon'ble President of India every year on 24th/25th January at the Talkatora Indoor Stadium in New Delhi. The Festival provides a unique opportunity for folk artistes to perform at the national level. A Crafts Fair is also held in the various zones along with the Republic Day Folk Dance Festival. Master craftsmen and artisans from various ZCCs participate in this Crafts Fair. The Crafts Fair has been providing a valuable opportunity for crafts persons from different parts of India to exhibit their products as well as their process of manufacturing directly to the customers. Documentation of various Folk and Tribal Art forms especially those which are rare and on the verge of vanishing, is one of the main thrust areas of the ZCCs. Under the National Cultural Exchange Programme (NCEP), exchanges of artists, musicologists, performers and scholars between different regions within the country take place. It has been extremely useful in promoting awareness of different tribal/folk art forms in different parts of the country and thus a very useful expressions of the concept of unity within diversity of our country. A scheme of Theatre Rejuvenation has been started to provide an opportunity to students, actors, artists, directors and writers to perform on a common platform and to interact with each other. To promote new talents in the field of music and dance a scheme of Guru Shishya Parampara has been introduced where masters will be identified in the zone, pupil assigned to them and scholarship provided for the purpose. The ZCCs also provide promotion and marketing facilities to craftsmen through Shilpgrams. ZCCs have also started a new scheme for recognition and encouragement of young talents in which each ZCC will identify the different performing/folk art forms in their area and select one or two talented artists in each of the fields.

TANGIBLE CULTURAL HERITAGE

ARCHAEOLOGICAL SURVEY OF INDIA

The Archaeological Survey of India (ASI) was established in 1861. It functions as an attached office of the Department of Culture. The organisation is headed by the Director General.

The major activities of the Archaeological Survey of India are :

- i) Survey of archaeological remains and excavations;
- ii) Maintenance and conservation of centrally protected monuments, sites and remains;

- iii) Chemical preservation of monuments and antiquarian remains;
- iv) Architectural survey of monuments;
- v) Development of epigraphical research and numismatic studies;
- vi) Setting up and re-organisation of site museums;
- vii) Expedition abroad;
- viii) Training in Archaeology;
- ix) Publication of technical report and research works.

There are 24 Circles and 5 Regional Directorates through which the Archaeological Survey of India administer the work of preservation and conservation of monuments under its protection.

Under the Ancient Monuments and Archaeological Sites and Remains Act, 1958, the ASI has declared three thousand six hundred and seventy five monuments/sites to be of national importance in the country which includes twenty one properties that are inscribed on the World Heritage List by UNESCO. Since its establishment one hundred and forty four years ago, the ASI has grown into a large organisation with an all India network of offices, branches and circles.

Three sites, namely, Champaner - Pavagarh Archaeological Park in Gujarat, Chhatrapati Shivaji Terminus (formerly Victoria Terminus) Station in Mumbai and the Brihadisvara temple complex, Gangakondacholapuram and the Airavatesvaira temple complex, Darasuram as an extension to the Brihadisvara temple complex, Thanjavur (now commonly called as the Great Living Chola Temples) have been inscribed on the World Heritage List of UNESCO in 2004.

Nomination dossiers for the following sites have been sent to the World Heritage Centre for inscription on the World Heritage List of UNESCO : (i) Shri Harmandir Sahib (Golden Temple) at Amritsar, Punjab. (ii) Majuli Island in Mid-stream of river Brahmaputra in Assam. (iii) Valley of Flowers as an extension to the Nanda Devi National Park in Uttaranchal. (iv) Red Fort, Delhi (a deferred nomination).

The total number of individual structures being maintained by the ASI is over five thousand. The activities of its various wings are as under;

Underwater Archaeology Wing : Search, study and preservation of cultural heritage lying submerged in inland or territorial waters are among the principal functions of the Underwater Archaeology Wing. It carries out exploration and excavation in Arabian Sea as well as in Bay of Bengal.

Science Branch : The Science Branch of the Survey with its headquarters at Dehradun and field laboratories in different parts of the country carries out chemical preservation of monuments, antiquities, manuscripts, paintings, etc.

Laboratories of Science Branch at Dehradun have undertaken the following Scientific Projects : (1) Evaluation of new materials as preservative coatings and strengthened for stone, terracotta, bricks & adobe structures. (2) Scientific studies related to conservation of ancient lime plaster. (3) Evaluation of physical characteristics of plaster cement with addition of rapid hardening plaster cement in different proportions.

Horticulture Branch : The Horticulture Branch of the ASI maintains gardens in about two hundred and eighty seven centrally protected monuments/sites located in different parts of the country. The branch provides periodic plants to be used in

gardens by developing base nurseries at Delhi, Agra, Srirangapatnam and Bhubaneswar.

Epigraphy Branch : The Epigraphy Branch at Mysore carries out research work in Sanskrit and Dravidian languages while the one at Nagpur carries out research work in Arabic and Persian.

Expeditions Abroad : The ASI has taken up the conservation project of Ta Prohm, Cambodia under the ITEC programme of Ministry of External Affairs with an outlay of ₹ 19.51 crore. The conservation project has been started as per the assurance of the Hon'ble Prime Minister of India, during his visits to Cambodia in April and November 2002, on the request of the Royal Government of Cambodia for India's assistance in Conservation and Restoration of Prasat Ta Prohm. The conservation project is for a period of ten years and is to be completed in five phases.

The ASI has commenced the conservation project from January 2004 onwards and it was formally launched in February 2004 in Cambodia.

NATIONAL MISSION ON MONUMENTS AND ANTIQUITIES (NMMA)

The National Mission on Monuments and Antiquities was launched on 19 March, 2007 with a budgetary out lay of ₹ 90 crore. Its mandate includes preparation of a National Register for Built Heritage, Sites and Antiques and setting up of a State level database on Built Heritage, Sites and Antiquarian wealth for information and dissemination to planners, researchers etc. and better management of such cultural resources. The time frame prescribed for the NMMA to accomplish its mandate is five years.

NATIONAL MISSION FOR MANUSCRIPTS (NMM)

The National Mission for Manuscripts was launched by the Government in 2003 with the Indira Gandhi National Centre for Arts (IGNCA) as the nodal agency. Its primary objective is to reclaim India's inheritance of knowledge contained in the vast treasure of manuscripts. The Mission functions through different categories of centres established throughout the country. There are 46 Manuscripts Resource Centres, 33 Manuscripts Conservation Centres, 42 Manuscript Partner Centres and 300 Manuscripts Conservation Partner Centres.

Major activities of the NMM are : documentation of manuscripts through survey, preventive and curative conservation, conducting training courses and workshops on conservation and manuscript logy and paleography, documentation through digitization, research and publication and public outreach programmes to create public consciousness for preserving and dissemination of manuscripts.

NATIONAL MUSEUM

The National Museum, which was set up in 1949 and which has been functioning as a subordinate office under the Ministry of Culture since 1960, houses over 2.6 lakh art objects dating from prehistoric era onwards. The main activities of the Museum are as follows: Exhibitions, Reorganisation/Modernisation of Galleries, Educational Activities and Outreach Programmes, Public Relations, Publications, Photo Documentation, Summer Holiday Programme, Memorial Lectures, Museum Corner, Photo Unit, Modelling Unit, Library, Conservation Laboratory, and Teaching and Workshop.

NATIONAL GALLERY OF MODERN ART

The National Gallery of Modern Art (NGMA), New Delhi was founded in 1954. The main aim of the NGMA is the promotion and development of contemporary Indian

Art. The collection of NGMA inter-alia comprises 17858 works of art, representing about 1748 contemporary Indian artists. The collection has been built up mainly by purchase and also by gift. The NGMA's important collections include paintings, sculpture, graphic arts and photographs. NGMA organises exhibitions from its collection and under Cultural Exchange Programme periodically. Several colour reproductions have been brought out. The objective of NGMA is to help people look at the works of modern art with understanding and sensitivity. Keeping this in view, NGMA Mumbai was inaugurated in 1996, while a new one is being set up at Bangalore.

The other important museums are : Indian Museum Victoria Memorial Hall, Salarjung Museum and National Council of Science museum.

NATIONAL MUSEUM INSTITUTE OF HISTORY OF ART, CONSERVATION AND MUSEOLOGY

The National Museum Institute of History of Art, Conservation and Museology, New Delhi, an autonomous organisation fully funded by the Ministry of Culture was established and declared a Deemed University in 1989. This is the only Museum University in India and is presently functioning at the first floor of National Museum, New Delhi. As per its Memorandum of Association, the Director General, National Museum is the ex-officio Vice-Chancellor of this University.

Main objectives : (a) To provide education and training in the specialised areas of Art History, Conservation and Museology leading to the award of M.A. and Ph.D. Degrees in these three disciplines. (b) A few short-term courses - India Art and culture, Art Appreciation and *Bhartiya Kalanidhi* (Hindi Medium) are also conducted to popularise the Indian culture. (c) To organise seminars/workshops, conferences and special lectures on Museum Education, Art and Culture in a befitting manner so as to open new areas in this field.

NATIONAL RESEARCH LABORATORY FOR CONSERVATION OF CULTURAL PROPERTY

The National Research Laboratory for Conservation of Cultural Property (NRLC), which was established in 1976, is a Subordinate Office of the Department of Culture, and is recognised by the Department of Science and Technology as a scientific institution of the Government of India. The aims and objectives of the NRLC are to develop conservation of cultural property in the country. To meet its objectives, NRLC provides conservation services and technical advice in matters concerning conservation to museums, archives, archaeology departments and other similar institutions, imparts training in different aspects of conservation, carries out research in methods and materials of conservation, disseminates knowledge in conservation and provides library services to conservators of the country. The headquarters of NRLC is situated at Lucknow, and to further the cause of conservation in the southern region of the country, a regional centre of the NRLC, the Regional Conservation Laboratory is functioning at Mysore. For more information visit NRLC at www.nrlccp.org.

RAMAKRISHNA MISSION INSTITUTE OF CULTURE, KOLKATA

The Institute was conceived in 1936 as one of the permanent memorials to Sri Ramakrishna (1836-1886) on the occasion of his first birth centenary. It was formally established on 29 January 1938 as a branch centre of the Ramakrishna Mission founded by Swami Vivekananda to propagate the message of Vedanta as propounded by Sri Ramakrishna, whose basic teachings stressed: (i) the equality of all religions;

(ii) the potential divinity of man; and (iii) service to man as a way of worshipping God - a new religion for mankind.

Dedicated to promote the ideal of the unity of mankind the Institute has endeavoured over the years to make people aware of the richness of the cultures of the World and also of the urgent need for inter-cultural appreciation, understanding and acceptance of each other's points of view - an approach which is conducive to international understanding at the global level and national integration at home. The key note of everything the Institute does is thus respect for others point of view and its assimilation and acceptance for one's own enrichment.

ANTHROPOLOGICAL SURVEY OF INDIA

The Anthropological Survey of India is a premier research organisation under the Ministry of Culture. It has completed 59 years of its existence and has adhered itself to its commitments to carry out anthropological researches in the area of bio-cultural aspects of Indian population in general and on those who are referred to as the "Weakest of the Weak" in particular. Besides this there are other pertinent activities of the Survey, which include collection, preservation, maintenance; documentation and study of ethnographic materials as well as ancient human skeletal remains. Over the years the Survey generated information from grass-root level through sustained research by its Head Office at Kolkata and also its seven Regional Centres, one Sub-regional Centre, one permanent field station and eight other field stations located in various parts of the country, besides a Camp Office at New Delhi.

During the Tenth Plan following National Projects are being studied namely, Cultural Dimension of Tourism in the Biosphere Reserve in addition to the locations of tourists interest.

NATIONAL ARCHIVES OF INDIA

The National Archives of India (NAI), New Delhi known until Independence as Imperial Record Department was originally established in Kolkata on 11 March 1891. It is the official custodian of all non-current record of permanent value to the Government of India and its predecessor bodies. It has a Regional Office at Bhopal and three Record Centres at Bhubaneswar, Jaipur and Pondicherry.

Major activities of the Archives include: (i) making public records accessible to various Government agencies and research scholars; (ii) preparation of reference material; (iii) preservation and maintenance of records and conducting of scientific investigations for the said purpose; (iv) evolving records management programmes; (v) rendering technical assistance to individuals and institutions in the field of conservation of records; (vi) imparting training in the field of archives administration, records management, reprography, repair and conservation of records, books and manuscripts at professional and sub-professional levels; and (vii) creation and promotion of archival consciousness in the country by organising thematic exhibitions.

The National Archives of India provides financial assistance to States/Union Territories, Archives, Voluntary Organisations and other custodial institutions, so that the documentary heritage is preserved and archival science is promoted.

LIBRARIES

NATIONAL LIBRARY

The National Library, Kolkata was established in 1948 with the passing of the imperial Library (Change of Name) Act, 1948. The basic functions of the Library, which enjoys

the status of an institution of national importance, are : (i) Acquisition and conservation of all significant printed material (to the exclusion only of ephemera) as well as of manuscripts of national importance; (ii) Collection of printed material concerning the country, no matter where this is published; (iii) Rendering of bibliographical and documentary services of current and retrospective material, both general and specialised. (This implies the responsibility to produce current national bibliographies and retrospective bibliographies on various aspects of the country); (iv) Acting as referral centre, purveying full and accurate knowledge of all sources of bibliographical information and participation in international bibliographical activities; and (v) Acting as a centre for international book exchange and internal loan.

CENTRAL SECRETARIAT LIBRARY

The Central Secretariat Library (CSL) originally known as Imperial Secretariat Library, Kolkata was established in 1891. Since 1969 the Library has been housed at Shastri Bhawan, New Delhi. It has a collection of over seven lakh documents mainly on Social Sciences and Humanities. It is a depository of Indian Official Documents, Central Government and has a strong collection of State Government documents also.

The collection of Area Studies Division is unique in which books have been arranged according to geographical area. Besides this, its biographical collection is very large and has an extremely rich rare book collection.

The CSL is a microfilm repository under Microfilming of Indian Publication Project (MIPP), having large number of microfilm collection.

The CSL is mainly responsible for overall collection and development on all subjects useful in policy decision-making process and is also responsible to build its collection on developmental literature. It provides all possible readers' services to Central Government Officials and other research scholars visiting the Library from all over India. In the recent past CSL has undertaken the development of IT based products by digitizing the Government of India Gazette, Committee and Commission Reports and has also developed the OPAC system for its collection.

The Library has two branches, namely, Hindi and Regional Languages Wing popularly known as Tulsi Sadan Library, Bahawalpur House, New Delhi that houses about 1.9 lakh volumes of Hindi and 13 other constitutionally approved Indian Regional Language books and a Text Book Library located at R.K. Puram, New Delhi which caters to the needs of the wards of Central Government Employees of Under Graduate level.

The CSL recently launched, a portal "India Information Gateway" and its Web Site <http://www.csl.nic.in> was inaugurated by Secretary, Ministry of Culture on 21 March 2005.

The other important libraries include; Raja Rammohan Roy Library Foundation, Delhi Public Library, Rampur Raza library, Khuda Baksh Oriental Public Library.

SCHOLARSHIP AND FELLOWSHIP DIVISION

The Scholarship and Fellowship Division of the Ministry operates the following schemes to provide monetary assistance to individuals/organisations engaged in promoting cultural activities in the country:-

1. Scheme for Award of Scholarships to Young Artists in Different Cultural Fields.

2. Scheme for Award of Fellowship to Outstanding Persons in the Field of Culture.
3. Scheme of Financial Assistance for Seminars, Festivals and Exhibitions on Cultural Subjects of Not-for-profit organisations (Cultural Functions Grant Scheme).
4. Scheme of Financial Assistance to Cultural organisations with National Presence.
5. Scheme for Visiting Fellows in Art, Culture & Heritage.

A brief description of the various Schemes is given below:-

1. **Scheme for Award of Scholarships to Young Artistes in different Cultural Fields :**

Scholarships are awarded to young artistes of outstanding promise for advanced training in the fields of Indian Classical Dances, Indian Classical Music, Theatre, Visual Arts and Folk, Traditional forms of Arts, etc. Under the Scheme, a total of 400 scholarships are awarded each year for a period of two years. The value of Scholarships is ₹ 5000/- per month.

Artistes in the age group of 18-25 years are eligible to apply. The scholarships are awarded for taking advance training, the applicants must have undergone a minimum of five years' training with their Gurus/Institutes.

2. **Scheme for Award of Fellowships to Outstanding Persons in the fields of Culture:**

Fellowships are awarded to the outstanding artistes in the fields of Literary Arts, Plastic Arts, Performing Arts, Indology, Epigraphy, Sociology of Culture, Cultural Economics, Structural and Engineering Aspects of Monuments, Numismatics, Scientific and Technical Aspects of Conservation, Management aspect of Art and Heritage, and Studies relating to application of Science and Technology in areas related to culture and awarded for a period of two years; out of this 125 are Senior Fellowships having a value of ₹ 15,000/- per month and 125 are Junior Fellowships having a value of ₹ 7500/- per month. Artistes in the age bracket of 40 years and above are eligible to apply for Senior Fellowships and artistes from 25 to 40 years of age can apply for Junior Fellowships.

The Fellowships are awarded for undertaking research oriented projects. While both the academic research and performance related research are encouraged, the applicant is required to provide evidence of his/her capabilities in undertaking the project. The fellowships are not intended for providing training, conducting workshops, seminars or writing autobiographies/fictions, etc.

3. **Scheme of Financial Assistance for Seminars, Festivals and Exhibitions on Cultural Subjects by Not-for Profit Organisations (Cultural Functions Grant Scheme).**

The Ministry of Culture has come up with an enlarged and revised version of Seminar Grant Scheme' which is now called the "**Cultural Functions Grant Scheme**". Formally, however, it goes under the title "Scheme of Financial Assistance for Seminars, Festivals and Exhibitions on Cultural Subjects by Not-for-Profit Organisations". Salient features of the scheme are as under:-

- (i) The New "Cultural Functions Grant Scheme", also covers festivals and exhibitions, along with research projects, seminars, conferences. symposia etc.

- (ii) The new scheme also increases the upper limit of assistance. Assistance in case of any particular project is restricted to 75 per cent of the total project cost, but the Government's contribution can now go up to ₹ 5 lakhs.
- (iii) Another beneficial feature of this new scheme is that henceforth, University Departments and University Centres would also be entitled to apply for assistance, along with NGOs, societies trusts etc.
- (iv) Previously the Seminar Grant Scheme was opened for fresh applications only once during each year, whereas the new "Cultural Functions Grant Scheme" would remain open for applications throughout the year.
- (v) NGOs/Voluntary Organisations (but not Universities or their Centres) would have to sign up/register with the NGO Partnership National Portal www.ngo.india.gov.in through a simple operation for database purpose.

4. Financial Assistance to Ramakrishna Mission Institute of Culture, Kolkata (a cultural organisation with national presence)

The Ramakrishna Mission Institute of Culture, a branch Centre of the Ramakrishna Mission, is run by a Managing Committee comprising of eminent scholars and distinguished persons from different walks of life. The Governor of West Bengal is the President of its Managing Committee.

Dedicated to promote the ideal of the unity of mankind, the Institute has endeavoured over the years, to make people aware of the richness of the cultures of the world and also the urgent need for inter-cultural appreciation, understanding and acceptance of each other's points of view - an approach which is conducive to international understanding at the global level and national integration at home. The key note of everything the Institute does is thus to respect other point of view and its assimilation and acceptance for ones own enrichment.

To support the activities of the Institute, the Government of India and the Government of West Bengal have been sanctioning grants for the maintenance of the Institute since 1962.

5. Scheme for Visiting Fellows in Art, Culture & Heritage

This scheme has recently been introduced to invigorate and revitalise the various institutions under the Ministry of Culture which have vast 'treasures' in the form of manuscripts, documents, artifacts, antiquities and paintings. It is meant to encourage serious researches into our cultural resources so that the nation stands to benefit from the results. Museums, for instance, can hardly display more than a small fraction of their entire holdings and schemes like the one that is being introduced would encourage research, scholarship and analysis of the objects that are not unusually available for public viewing.

The scheme at present covers 17 institutions or organisations under the Ministry or supported by it that are listed hereinafter, while more can be covered in subsequent years.

The scheme will be open to both Indian and foreign academics and researchers. Scholars and researchers, who have sound academic or professional credentials, and have made significant contribution to knowledge in their respective field, or are persons with significant creative work in any field of art or culture are eligible.

The Fellowships will normally be awarded for a period of two years. The Fellow selected under the scheme will be expected to attend the institution concerned, as the objective of this scheme is to provide the cultural institutions with academic expertise, to induce academic orientation in their activities and to provide interaction with visiting academics from other institutions.

All possible infrastructural support would be provided to the Fellows by the institutions of their affiliation and they will have the benefit of access to national cultural institutions for study and research material.

The scheme offers the best terms, emoluments and facilities in order to draw the best talent available from academic and research institutes, as well as to attract researchers with domain knowledge.

Professors, who came on 2 year's lien, would be fully compensated with pay allowance, HRA etc, and would also be entitled to a sum of upto ₹ 3.5 lakhs each year (for 2 years) by way of project assistance, in addition to all kinds of assistance that the cultural institutions would be extending to them.

Retired academics or researchers, with established credentials, would be entitled to an honorarium of ₹ 80,000 per month, in addition to other financial and logistic supports.

Outstation Fellows would also be entitled to a 'Settling-in-allowance'.

TOURISM

Tourism has been a major social phenomenon of societies all over the world. It is driven by the natural urge of every human being for new experiences, and the desire to be both educated and entertained. The motivations for tourism also include religious and business interests. The basic human thrust for new experience and knowledge has become stronger, as communication barriers are getting overcome by technological advances. Progress in air transport and development of tourist facilities have encouraged people to venture beyond the boundaries.

The importance of Tourism as an instrument of economic development and employment generation, particularly in remote and backward areas, has been well recognized the world over. It is a large service industry globally in terms of gross revenue as well as foreign exchange earnings. Tourism is recognized as a powerful engine for economic growth and employment generation in the country. The contribution of tourism to the country's GDP and the total jobs was 5.92 per cent and 9.24 per cent respectively during 2007-08. The total numbers of tourism jobs in the country during 2007-08 were 49.8 million.

India's performance in tourism sector has been quite impressive. During the period 2002 to 2009. India witnessed an increase in the Foreign Tourist Arrivals (FTAs) from 2.38 million to 5.11 million resulting in the average annual increase of about 11.5 per cent. Due to global slowdown, terrorist activities, H1N1 influenza pandemic, etc. Growth rate in FTAs during 2008 was only 4 per cent and in 2009 it actually declined by 3.3 per cent. However, the Indian growth rate in both 2008 and 2009 were higher than the growth rate observed for the world as a whole in these years. The world growth rate was 2.0 per cent in 2008 and -4.2 per cent in 2009. After the setbacks in 2008 and 2009, the tourism sector in India has recovered in 2010. The growth rate observed in FTAs during January-August 2010 was 9.7 per cent as compared to the corresponding period of 2009. India's share in world tourism market during the year 2002 was 0.34 per cent it grew to 0.58 per cent during the year 2009.

Foreign Exchange Earnings (FEE) from tourism increased from Rs. 15064 crore in 2002 to ₹ 54960 crore in 2009, with an annual growth rate of 20.3 per cent. The FEE in US\$ terms in 2002 was US\$ 3.10 billion, which increased to US\$ 11.4 billion in 2009. Similar to the trend observed in FTAs, the growth rate in FEE in 2009 were lower than that observed in the previous years.

Domestic tourism plays an important role in the overall development of tourism in the country. The number of domestic tourist visits increased from 270 million in 2002 to 650 million in 2009 with an average annual growth rate of 13.4 per cent. Though the FTAs observed a decline of 3.3 per cent in 2009, domestic tourist visits observed an impressive growth of 15.5 per cent in 2009 as compared to 2008. Tourism in India has come into its own as a brand - India Tourism. There have been several innovative approaches in the Ministry of Tourism's Policy in 2009-10. The creation of niche tourism products like heliport tourism medical tourism, wellness tourism, adventure tourism, cruise tourism and caravan tourist has served to widen the net of this sector. A major step has been the issuing of guidelines to state governments/ union territory administrations for development of tourism infrastructure that is world class.

ORGANISATION

Ministry of Tourism is the nodal agency to formulate national policies and programmes for the development and promotion of tourism. In the process, the Ministry consults and collaborates with other stakeholders in the sector including various Central Ministries/agencies, the State Governments/Union Territories and the representatives of the private sector.

Some of the important organizations under the administrative control of Ministry of Tourism are Indian Institute of Tourism and Travel Management (IITM), National Council for Hotel Management and Catering Technology (NCHMCT), India Tourism Development Corporation (ITDC), Indian Institute of Skiing and Mountaineering (IISM) and National Institute of Water Sports (NIWS).

The Ministry of Tourism is responsible for formulation and implementation of policies and programmes for the development and promotion of tourism within the country and for attracting foreign tourists to India by way of developing tourism infrastructure, publicity and promotion, dissemination of information, co-ordination of activities of various segments of industry such as hotels, travel agencies, tour operators, etc.

There are 20 field offices of the Ministry of Tourism in India and 14 overseas offices to undertake both developmental promotional activities. While the overseas offices are in constant contact with tourists, travel intermediaries and media to promote tourism in India, the field offices in India provide facilitation services to tourists and coordinate with the State Government on tourism infrastructure development. The main objectives of the overseas tourist offices are to position India in the tourism generating markets as a preferred tourist destination, to promote various Indian Tourism products vis-a-vis competition faced from various destinations and to increase India's share in the global tourism market. These objectives are met through an integrated marketing strategy and synergized promotional activities undertaken in association with the Travel, Trade and State Governments.

India Tourism Development Corporation Limited

India Tourism Development Corporation (ITDC) is the only Public Sector Undertaking of the Ministry of Tourism. Incorporated on 1st October, 1966, the ITDC played a key

role in the development of tourism infrastructure in the country. Apart from developing the largest hotel chain in India, the ITDC offered tourism related facilities like transport, duty free shopping, entertainment, production of tourist publicity literature, consultancy etc.

After the disinvestment of 18 hotels, ITDC consolidated its remaining activities and restructured itself to take up diversified service-oriented business activities like consultancy and execution of tourism and engineering projects, training consultancy in hospitality sector, event management and mounting of Son-et-Lumeire (SEL) Shows etc.

The Present network of ITDC consists of 8 Ashok Group of Hotels, 7 Joint Venture Hotels, 3 Restaurants (including one Airport Restaurant), 11 Transport Units, 1 Tourist Service Station, Duty Free Shops at Goa and Coimbatore Airports, 1 Tax Free Outlet, and 4 Catering Outlets. Besides ITDC is also managing a hotel at Bharatpur, Tourist Complex at Kosi and a Son-et-Lumeire (SEL) show at Sabarmati, Ahmedabad.

Institute of Hotel Management and Food Craft Institute

The Ministry of Tourism has accorded high priority to the development of manpower to meet the growing needs of Hotels, Restaurants and other Hospitality based Industries. As of now, there are, 29 Institutes of Hotel Management (IHMs) comprising 21 Central IHMs and 8 State IHMs and 5 Food Craft Institutes (FCIs).

Indian Institute of Tourism and Travel Management

The Indian Institute of Tourism and Travel Management (IITTM), located in Gwalior, is an autonomous body setup to provide education in Tourism and Travel Management and to meet the demand for professionally trained people in the tourism industry. The Institute offers the following programmes with an intake of 60 students each at Gwalior, Bhubaneswar and Delhi centres:

- (i) Two-year Post Graduate Diploma in Management (Tourism and Travel) from Gwalior and Bhubaneswar.
- (ii) Two-year Post Graduate Diploma in Management (International Business) from Gwalior and Bhubaneswar.
- (iii) Two-year Post Graduate Diploma in Management (Service Sector)-from Gwalior.
- (iv) Two-year Post Graduate Diploma in Management (Tourism and leisure) from Delhi.

National Institute of Water Sports, Goa

The Ministry of Tourism set up the National Institute of Water Sports (NIWS) at Goa as training cum resource centre for the Water Sports Tourism Industry. The NIWS conducts and facilitates courses in various activities like sailing, scuba diving, skilling, etc. The Institute also acts as a nodal centre for water sports-Oriented tourism activities in the country.

Capacity Building for service Providers (CBSP)

For upgrading the skills and capacity building of service providers of the Industry, the Ministry commenced the scheme of Capacity Building for Service Providers, under which, trainings are undertaken to cover a wide range of services like health & personal hygiene, cleanliness, basic service techniques, cooking techniques, garbage disposal, etiquette and basic manners, basic nutrition values, energy saving and nutrition saving techniques, guide training etc. It, Inter-alia, covers service providers such as

coolies/servers/waiters/helpers/front office staff/reception counter staff/food kiosk and dhaba staff/personnel engaged in handling tourists, airport security staff, immigration officials and custom officers.

The implementing agencies are, amongst others, India tourism Offices, Institutes of Hotel Management, Food Craft Institutes, Indian Institute of Tourism and travel Management, NCHMCT, tourism departments of States/Ut Governments, State Tourism Development Corporations, India Tourism Development Corporation, State/Central training/academic institutions. Under the scheme, the participants of 4 day programmes are compensated for the loss of wages. The fee and other costs of training for all the programmes are covered.

National Council for Hotel Management and Catering Technology

For steering and regulating the academic efforts of the IHMs and FCIs, the Ministry had set up, in 1982, the National Council for Hotel Management and Catering Technology (NCHMCT). The mandate of the NCHMCT is to co-ordinate the growth and general advancement in the development of hospitality management education through its affiliated Institutes. The Council undertakes recruitment; its jurisdiction extends over a wide range of administrative matters including admission, fees, by-laws, syllabus for studies, courses, research and examinations, results; regulating building plans and equipment, training, publishing periodicals, magazines, etc.; as also carrying out of such government approved activities as prescribed from time to time. The NCHMET is also the affiliating body and the 29 IHMs and 5 FCIs that have come up with the support of Ministry are affiliated to it for admissions and regulations of examination. The NCHMCT has been given the mandate to affiliate private IHMs. As of now, 12 private Institutes are affiliated to the NCHMCT.

The NCHMCT also conducts Joint Entrance Examination (JEE) on all-India basis for admission to the 1st year of the 3-year B.Sc. programme in Hospitality and Hotel Administration for its affiliated institutes.

Classification of Hotels under the Star System

To conform to the expected standards for different classes of tourists, especially from the point of view of suitability for international tourists, the Ministry of Tourism classifies hotels under the star system in six categories, from One to Five Star Deluxe and Heritage Hotels (introduced in 1994) which is undertaken by the Hotel and Restaurant Approval and Classification Committee (HRACC), set up by the Ministry of Tourism.

To expedite the ongoing process of classification/re-classification of functioning hotels in one to three star categories, five Regional Committees have also been set up in Delhi, Mumbai, Kolkata, Guwahati and Chennai to conduct inspection.

Heritage Hotel

A Special category for classification of heritage hotels has been introduced to cover functioning of hotels in palaces, havelies, castles, forts and residences built prior to 1950. As the traditional structure reflects the ambience and lifestyle of the bygone era and is immensely popular with the tourists, the scheme is aimed to bring such properties into the approved sector and this ensures that such properties, landmarks of India's heritage are not lost due to decay and misuse.

Incredible India Bed and Breakfast Scheme

The Scheme offers foreign and domestic tourists an opportunity to stay with Indian family and enjoy the warm hospitality and a taste of Indian culture and cuisine in a

clean and affordable place. With a view to encourage the growth of such establishments and also to simplify the procedure of approvals, the Ministry of Tourism has recently reviewed the scheme and has simplified the guidelines by amending certain norms.

Travel Trade

The Ministry of Tourism has a schemes of approving Travel Agents, Inbound Tour Operators, Adventure Tour Operators, Domestic Tour Operators and Tourist Transport Operators. The aims and objectives of this schemes is to encourage quality, standard and service in these categories so as to promote tourism in India. The Travel Trade Division also interacts with the travel trade associations like travel Agents Association of India (TAAI), Indian Association of Tour Operators (IATO), Indian Tourist Transport operators Associations, (ITTA) etc, and other agencies like India Convention Promotion Bureau, Pacific Asia Travel Association (PATA) etc.

The Travel Trade Division also deals with all matters pertaining to the regulation and training of tourist guides at Regional level, and also co-ordinates with other Ministries such as Civil Aviation, Culture, Railways, Surface Transport, External Affairs, Home Affairs on Various issues to improve the faculties for the tourists visiting various destinations in India. Complaint cell of the Ministry for tourist complaints is also under Travel and Trade Division.

Celebration of Various Tourism Events

The Ministry of Tourism, though its 14 offices overseas endeavours to position India in the tourism generating markets as a preferred tourism destination, to promote various tourism products and to increase India's share in the global tourism market. The Ministry of Tourism, undertook a series of promotional initiatives to minimize the negative impact in the global economic meltdown and the terrorist attack in Mumbai and to promote tourism to India.

a. A Visit India Year 2009 Scheme was launched by the Ministry of Tourism in April 2009 in collaboration with all stakeholders including airlines, hotels, tour operators, for incentivising travel to India. Under the Scheme, participating airlines, hotels and tour operators have provided incentives by way of one complimentary air passage for a traveling companion, one night complimentary stay in the hotel booked by the tourist and complimentary sightseeing tour in any one city of visit. In addition Rural Eco-packages and Wellness packages were also offered to tourist from overseas.

* Road Shows were organized in important tourist generating markets overseas with participation of different segments of the travel industry.

(i) Road Shows, in collaboration with the Indian Association of Tour Operators were organized in Japan & South Korea (Seoul-Osaka-Tokyo) USA & Canada (new York-Chicago-Toronto-Vancouver-San Francisco-Los Angeles) and West Asia (Dubai-Muscat-Bahrain) during the months of April and May 2009.

(ii) Road shows in collaboration with the PATA India Chapter were organized in Scandinavia-Helsinki (Finland), Stockholm (Sweden) and Oslo (Norway) in August 2009. The Road Shows comprised presentations on India, followed by one-to one business meetings between the trade delegation from India and the travel trade in the respective countries.

- (iii) Road Shows focusing on Adventure Tourism were organized in Australia and New Zealand (Adelaide, Brisbane, Melbourne, Sydney, Wellington and Auckland) in September 2009, in collaboration with the Adventure Tour Operators Association of India.
 - (iv) To promote Wellness and Medical Tourism, Road Shows were held in Dubai, Riyadh, Kuwait and Doha in October 2009. The Road Shows comprised presentations on the varied tourism products of the country as well as focused presentations on Medical and Wellness facilities in the country.
- b. As part of the celebration of the 'Year of India in Russia' mega promotional events featuring Indian culture and cuisine were held in Moscow and St. Petersburg in September 2009.
- c. The Ministry of Tourism supported a major India promotional event 'India Calling' Organized by the National Geographic Society in Los Angeles in September 2009.
- d. Advertising campaign in the print and outdoor media in London to coincide with the Queen Baton Relay for the Commonwealth Games, 2010.
- e. Co-sponsored an event 'India Show' a unique experience with modern entertainment, produced by M/s Prime Time Entertainment AG. Germany.
- f. Screening of the film "Quest for the one-horned Rhino" a film produced by Richard Bangs, world renowned travel pioneer, author and producer at the Explorers Club, New York.
- g. Participation in Travel Fairs and exhibitions. These include Arabian Travel Market (ATM) in Dubai, PATA Travel Mart in Hangzhou, China, China International Travel Mart in Shanghai, ITB-Asia in Singapore, World Travel Market (WTM) in London, IMEX in Frankfurt, FITUR in Madrid and ITB in Berlin, etc.

6 Basic Economic Data

THE Ministry of Statistics and Programme Implementation consists of two wings namely : Statistics Wing and Programme Implementation Wing. The Ministry is the apex body in the official statistical system of the country. It is the authority that controls the Indian Statistical Service (ISS) and Subordinate Statistical Service (SSS). It is also the Administrative Ministry for the Indian Statistical Institute, an autonomous registered scientific society of national importance. The Ministry includes, *inter-alia*, the Central Statistical Office (CSO) and the National Sample Survey Organisation (NSSO).

CENTRAL STATISTICAL OFFICE

The Central Statistical Office (CSO) located in Delhi with a wing at Kolkata, is responsible for formulation and maintenance of statistical standards, work pertaining to national accounts, industrial statistics, consumer price indices for urban non-manual employees, conduct of economic census and surveys, training in official statistics, coordination of statistical activities undertaken within the country and liaising with international agencies in statistical matters.

NATIONAL AND PER CAPITA INCOME

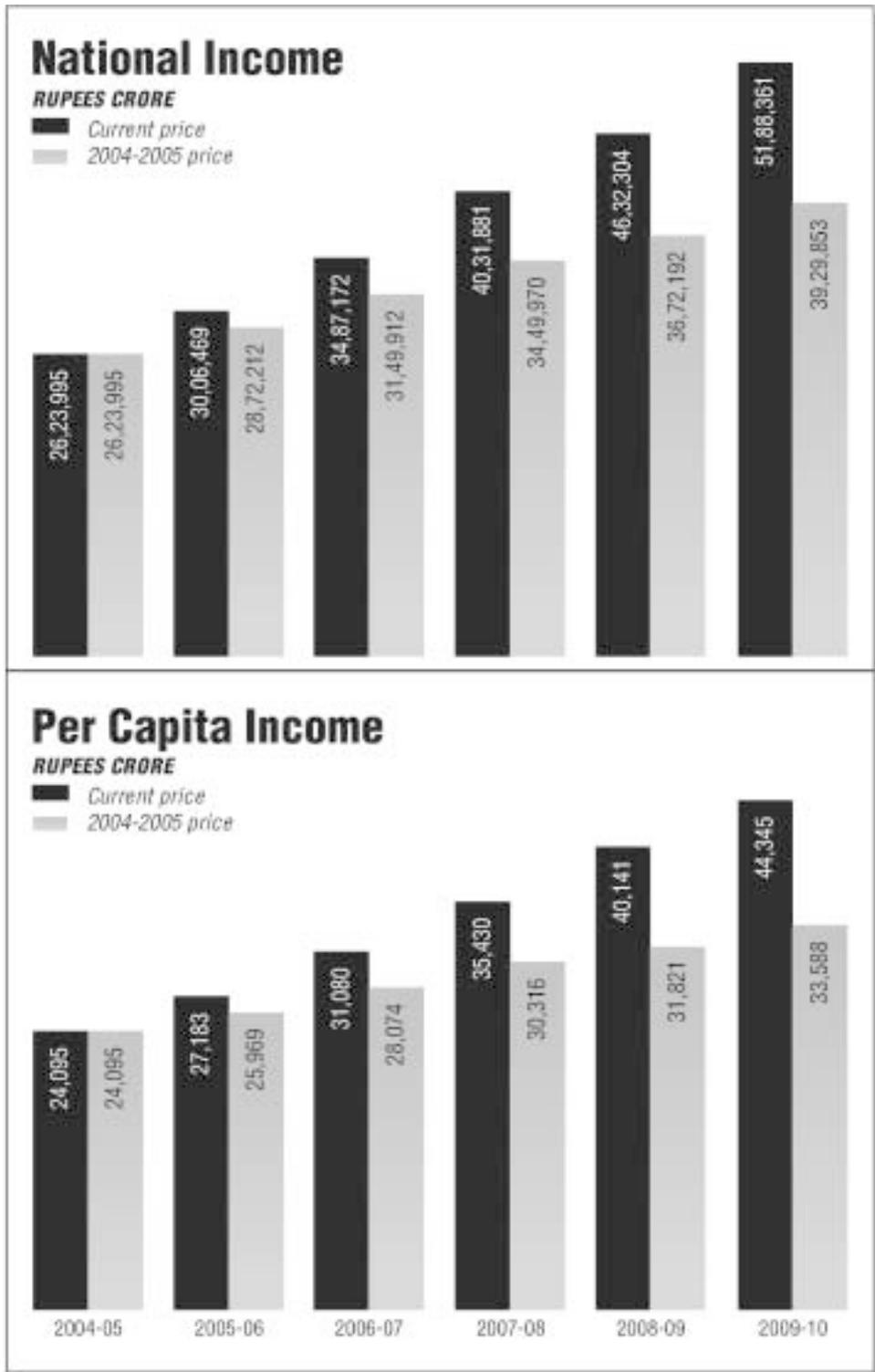
National Income is defined as the sum of incomes accruing to factors of production, supplied by normal residents of the country before deduction of direct taxes. It is identically equal to the net national product at Factor Cost. Table 6.1 gives National and Per Capita Income at Factor Cost at current and 2004-05 prices, while table 6.2 gives the relationship of national income and other aggregates at current prices. Table 6.3 gives the performance of the public sector and table 6.4 gives private final consumption expenditure, net domestic saving and capital formation.

CATEGORIES OF WORKERS

For the 2001 census, the population was divided into main workers, marginal workers, and non-workers. The table 6.5 shows total workers sub-divided into main workers and marginal workers and distribution of total workers in four broad categories in rural and urban areas as on 1 March 2001. Employment in the organised sector has been shown in table 6.6.

UNEMPLOYMENT

The number of persons on the live register of the employment exchanges gives an idea of the trend of unemployment subject to certain limitations. Table 6.7 gives registrations, vacancies, placements and job seekers on the 'live register' for the period 1994-2008.



NATIONAL SAMPLE SURVEY OFFICE

The National Sample Survey (NSS) was set up in 1950 for conducting large scale sample surveys to meet the data needs of the country for the estimation of national income and other aggregates. It was reorganized in 1970 by bringing together all aspects of survey work under a single agency known as the National Sample Survey Organisation (NSSO) under the overall technical guidance of a Governing Council. After setting up of the National Statistical Commission (NSC), vide Government of India resolution of 1 June 2005 the role of Governing Council has been taken over by the NSC. On recommendations of the NSC, a Steering Committee for NSS has been constituted to look into the various aspects of its surveys. The Director General and Chief Executive Officer (DG & CEO) of the NSSO is responsible for supervising the activities of the organization. It has four divisions viz. (i) Survey Design and Research Division (SDRD) (ii) Field Operations Division (FOD) (iii) Data Processing Division (DPD) (iv) Co-ordination and Publication Division (CPD).

The SDRD has its headquarters at Kolkata. The FOD has its headquarters at New Delhi with a network of 6 zonal offices located at Bangluru, Guwahati, Jaipur, Kolkata, Lucknow and Nagpur, 49 regional offices and 116 sub-regional offices spread throughout the country. The DPD with its headquarters at Kolkata, functions through the Data processing Centres at Ahmedabad, Bangaluru, New Delhi, Giridh, Kolkata and Nagpur. The CPD located at New Delhi functions as the Secretariat of DG & CEO, NSSO.

The subjects taken up under socio-economic surveys are—surveys on Consumer Expenditure, Employment-Unemployment, Social Consumption (Health, Education, etc.) Manufacturing Enterprises and Service Sector Enterprises in the Unorganized Sector being covered once in five years, while subjects like Land and Livestock Holding, Debt and Investment are covered once in 10 years. Other than irregular surveys, ad-hoc surveys are also undertaken to cover special topics of current interest to meet the demand of the data users. The data on Consumer Expenditure and Employment - Unemployment were also collected in every round from a thin sample along with the main subject of enquiry up to 64th round of NSS. The 62nd round of NSS (July 2005 - June 2006) was on Unorganized manufacturing and usual annual survey of Household Consumer Expenditure and Employment-Unemployment. All the Five reports of this round have been brought out and are available to the public. NSS 63rd round (July 2006 -June 2007) survey was on “Services Sector Enterprises (excluding Trade) and Household Consumer Expenditure. All three reports on this survey have been released. NSS 64th round (July 2007 - June 2008) survey was on Participation and Expenditure in Education, Employment-Unemployment & Migration and Household Consumer Expenditure. The Field work of this survey was completed in June, 2008 and all the four reports based on this survey have been released. NSS 65th round (July 2008-June, 2009) was devoted to Domestic Tourism, Housing Condition, Urban Slums and Civic Amenities and the field work this survey was completed in June, 2009. Out of total number of 3 reports based on the survey, only one report viz. 'Some Characteristics of Urban

Slum in India', has been released till date. The 66th round of NSS is 8th Quinquennial Round on Employment, Unemployment and Consumer Expenditure. Field work of this survey has started from July, 2009 and will continue up to June, 2010. Thereafter, the field work of 67th Round of NSS devoted to Survey of Un-incorporated non agricultural Enterprises covering Manufacturing, Trade and Service Sectors will start from 1st July, 2010.

The results of the surveys are brought out in the form of NSS reports which are available for sale. The NSS reports are also available on the website of the Ministry for viewing/downloading free of cost. Summary of the results of these surveys are also published in **Sarvekshana** - a Bi-annual Technical Journal of the NSSO. Validated unit level data relating to the NSS surveys are available on CD-ROM for sale at normal price.

The NSSO undertakes the fieldwork of the Annual Survey of Industries (ASI) under statutory provisions of the Collections of Statistics Act, 1953 (Central Rule, 1959) in the whole country except for the State of Jammu & Kashmir where the ASI is conducted under Jammu & Kashmir Collection of Statistics Act, 1961. The survey covers all factories registered under Section 2 m (i) and 2 m (ii) of the Factories Act, 1948 (2 m (i): those factories employing 10 or more workers and using power and 2 m (ii): those factories employing 20 or more workers and not using power) and Establishment registered under the Bidi and Cigar Workers (Conditions of Employment) Act, 1966. The coverage extends not only to manufacturing sector but also to other categories under services such as cold storage, water supply, gas production, motion picture production, laundry services, repair of motor vehicles and of other consumer durables. However, defence factories, technical training institutions, jail factories, unit engaged in storage and distribution of oil, restaurants/ cafe and computer services are kept out of the survey. From ASI 1998-99, the electricity units engaged in generation, transmission and distribution registered with the Central Electricity Authority (CEA) are excluded. The departmental units such as railways workshops, road transportation, corporation workshops, government mints, sanitary, water supply, gas storage etc. are not covered as there are alternative sources of their data compilation for the Gross Domestic product (GDP) estimates by the National Accounts Division of Central Statistical Organisation (CSO).

The NSSO also provides technical guidance to States in the field of agricultural statistics for conducting crop estimation surveys and keeps a continuous watch on the quality of crop statistics through the Improvement of Crop Statistics Scheme.

The NSSO regularly collects rural price data on monthly basis from shops/outlets in selected markets located in a sample of 603 villages for compilation of Consumer Price Index (Agricultural Labour/Rural Labour). For urban area, price data is being collected from compilation of new series of Consumer Price Index (Urban) from 310 towns spread over all the States/UTs.

The NSSO conducts an Urban Frame Survey (UFS) for providing a sampling frame of first stage units in the urban sector for its surveys. It is carried out in a

cycle of five years (known as Phase of Urban Frame Survey) thereby providing an updated frame twice in a span of 10 years. Currently the field work of 2007-12 Phase of Urban Frame Survey is on in accordance with new guidelines finalised by the committee set up for reviewing the arrangement of preparation and updation of Urban Frame.

PRICES

Wholesale Prices

The current series of index numbers of wholesale prices (base 1993-94=100) was introduced from April 2000. The series have 435 commodities with 1918 quotations. Table 6.8 gives the index numbers of wholesale prices (1993-94=100) for the period 2003-04 to 2009-10 for all commodities and for selected groups/sub-groups of three major groups, namely: (i) primary articles; (ii) fuel, power, light, lubricants; and (iii) manufactured products.

Consumer Prices

Table 6.9 gives Consumer Price Index Numbers for industrial workers on base 1982=100 for the period 1993-94 to 2005-06 and on base : 2001 = 100 for the period 2006-07 to 2009-10. New Series of Consumer Price Index Numbers for Industrial Workers on base 2001 = 100 had been released w.e.f. January 2006 Index. Table 6.10 gives the Consumer Price Index Numbers for urban non-manual employees for the 132 India 2010 period 1993-94 to 2009-10 at the all-India level and some selected centres. Since April, 2008, the Central Statistical Organisation has discontinued the compilation of Centre-wise Consumer Price Index for urban non-manual employees.

ANNUAL SURVEY OF INDUSTRIES

The Annual Survey of Industries (ASI) is the principal source of industrial statistics in India. It provides statistical information to objectively and realistically assess and evaluate the change in the growth, composition and structure of the organised manufacturing sector. This sector comprises activities related to manufacturing processes, repair services, generation, transmission, etc., of electricity, gas and water supply and cold storage. The survey is conducted annually under the statutory provisions of the Collection of Statistics Act, 1953. The ASI extends to the entire country except the States of Arunachal Pradesh, Mizoram and Sikkim and the Union Territory of Lakshadweep. It covers all factories registered under Sections 2m(i) and 2m(ii) of the Factories Act, 1948. The survey also covers bidi and cigar manufacturing establishments registered under the Bidi and Cigar Workers (Conditions of Employment) Act, 1966. Certain services and activities like cold storage, water supply, repair of motor vehicles and of other consumer durable like watches, etc., are also covered under the survey. Defence establishments, oil storage and distribution depots, restaurants, hotels, cafe and computer services and also the technical training institutes are excluded from the purview of survey. Units

registered with Central Electricity Authority (CEA) are also not covered under the ASI. The data collected through ASI relate to capital, employment and emoluments, consumption of fuel and lubricants, raw material and other input/output, value added, labour turnover, absenteeism, labour cost, construction of houses by employers for their employees and other characteristics of factories/industrial establishments. The field work is carried out by the Field Operation Division, NSSO. The CSO processes the data and publishes the results.

The ASI 2007-08 indicates a total of 1,46,385 working factories in all States and Union Territories except the States of Arunachal Pradesh, Mizoram and Sikkim and the Union Territory of Lakshadweep. These factories together had a total of fixed capital worth ₹ 8,45,13,209 Lakhs, and invested capital ₹ 12,80,12,553 Lakhs. These factories have provided gainful employment to 1,04,52,535 persons and distributed ₹ 1,05,44,284 Lakhs as emoluments to employees.

ENERGY STATISTICS 2010

Energy sector is one of the most important basic infrastructure sectors, for any country. Proper energy planning is essential for achieving energy security. Every country has to formulate its policy to optimize the use of different energy sources for meeting the demands of its households, agricultural industrial and commercial sectors. This necessitates an integrated and updated database of the production and consumption of different energy sources viz., coal, crude, petroleum, natural gas and electricity.

The Central Statistics Office (CSO) brings out an annual publication "Energy Statistics" incorporating data on reserves, installed capacity, potential for generation, production, consumption, import, export and wholesale price of different energy commodities as available from the concerned line Ministries of the Government of India.

The latest issues, "Energy Statistic 2010", is the 17th issue in the series. The objective of this publication is to meet the information needs of national and international policy makers, administrators and researchers concerned with the energy sector.

Energy Statistics 2010 contains information on the reserves, installed capacity, Production, consumption, foreign trade, etc. to give a holistic view of all energy resources, The publication has also brought energy commodity balance which provides sector wise production and consumption for the last two years. To improve the unity of the publication, various indicators viz. growth rates, compound annual growth rates, percentage distributions, have been provided in relevant tables. For the first time analytical highlights on the performance of the sector has also been brought out.

TABLE 6.1 : NATIONAL AND PER CAPITA INCOME AT FACTOR COST (₹ Crore)

Item	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
Net National Product at Factor Cost (₹ crore) at current prices	2623995	3006469	3487172	4031881	4632304	5188361
at 2004-2005 prices	2623995	2872212	3149912	3449970	3672192	3929853
Per Capita Net National Product (Rs) at current prices	24095	27183	31080	35430	40141	44345
at 2004-2005 prices	24095	25969	28074	30316	31821	33588
Index Number of Net National Product at current prices	100	115	133	154	177	198
at 2004-2005 prices	100	109	120	131	140	150
Index Number of Per Capita Net National Product at current prices	100	113	129	147	167	184
at 2004-2005 prices	100	108	117	126	132	139
Gross National Product at Factor Cost (Rs crore) at current prices	2945224	3376200	3912087	4521099	5207534	5835493
at 2004-2005 prices	2945224	3224186	3537679	3876386	4138174	4439702
Index number of Gross National Product at current prices	100	115	133	154	177	198
at 2004-2005 prices	100	109	120	132	141	151

TABLE 6.2 : RELATIONSHIP OF NATIONAL INCOME AND OTHER AGGREGATES
(at current prices)

S. No.	Item	2004-05	2005-06	2006-07	2007-08	2008-09
1.	National income (Net national product at factor cost)	2623995	3006469	3487172	4031881	4632304
2.	Indirect taxes less Subsidies	271625	304157	342114	406870	345799
3.	Net national product at market prices (1+2)	2895620	3310626	3829286	4438751	4978103
4.	Other current transfers from rest of the world (Net)	91971	108585	126088	167495	201050
5.	Net national disposable income (3+4)	2987591	3419191	3955374	4606246	5179153
6.	Net factor income from abroad	-22375	-26116	-29778	-19888	-21116
7.	Net domestic product at market prices	2917995	3336742	3859064	4458639	4999219
8.	Net domestic product at factor cost (7-2)	2646370	3032585	3516950	4051789	4653420
9.	Income from entrepreneurship & property to govt administrative departments*	47856	59705	74018	98659	103799
10.	Saving of non-departmental enterprises	73035	79294	96219	11224	101700
11.	Income accruing to private sector from domestic product (8-9-10)	2525479	2893586	3346713	3840886	4447921
12.	Interest on public debt	171788	192435	226189	234535	258911
13.	Current transfers from government administrative departments	86067	108556	111640	134235	183414
14.	Private income (11+12+13+4+6)	2852930	3277026	3780852	4357263	5070180
15.	Saving of private corporate sector net of retained earnings of foreign companies	116040	160913	201881	258852	265020
16.	Corporation tax	82344	101343	144346	192134	225186
17.	Personal income	2654546	3014645	3434645	3906077	4579974
18.	Direct Taxes paid by households and miscellaneous receipts of Government administrative departments	61486	99834	132018	180235	183593
19.	Personal disposable income** (17-18)	2573060	2914936	3302627	3726042	4396381

* Includes savings of railways and communication

** Separate data on fees, fines, etc. paid by producers are not available and to that extent personal disposable income is underestimated.

TABLE 6.3: PERFORMANCE OF PUBLIC SECTOR
(at current prices)

S. No.	Item	2004-05	2005-06	2006-07	2007-08	2008-09
1.	Gross Domestic Product	2967599	3402316	3941865	4540987	5228650
	1.1 Public	681692	730491	821448	916140	1089154
	1.2 Private	2285907	2671825	3120417	3624847	4139496
2.	Gross Domestic Saving	1044280	1226044	1474788	1801469	1811585
	2.1 Public	76023	89845	152463	249660	79997
	2.2 Private	968257	1136198	1322325	1551809	1731588
3.	Gross Domestic Capital formation unadjusted	1010923	1229935	1492352	1805667	1912522
	3.1 Public	240755	293188	359778	442177	524241
	3.2 Private	770168	936747	1132574	1363490	1388281
4.	Final Consumption Expenditure	2282993	2562100	2922391	3340702	3879958
	4.1 Public	356135	403751	445182	515346	653132
	4.2 Private	1926858	2158349	2477209	2825356	3226826
PERCENTAGE SHARE OF PUBLIC SECTOR						
	1. Gross Domestic Product	23.0	21.5	20.8	20.2	20.8
	2. Gross Domestic Saving	7.3	7.3	10.3	13.9	4.4
	3. Gross Domestic Capital Formation	23.8	23.8	24.1	24.5	27.4
	4. Final Consumption Expenditure	15.6	15.8	15.2	15.4	16.8

TABLE 6.4: PRIVATE CONSUMPTION SAVING AND CAPITAL FORMATION

S. No.	Item	2004-05	2005-06	2006-07	2007-08	2008-09
		(₹ Crore)				
1.	Private final consumption expenditure in domestic market (₹ crore)	1926858	2158349	2477209	2825356	3226826
	At Current prices	1926858	2091639	2265665	2483357	2651786
2.	Per capita Private final consumption expenditure in domestic market (₹)	17694	19515	22079	24827	27962
	At Current prices	17694	18912	20193	21822	22979
3.	Net domestic saving (₹ crore)	723050	856314	1049873	1312251	1236356
	At Current prices	24.8	25.7	27.2	29.4	24.7
4.	Rate of Net domestic saving (per cent)	736388	900918	1095397	1376681	1369099
	At Current prices	736388	8600611	1000471	1195810	1091775
5.	Net domestic capital formation (₹ crore)	25.2	27.0	28.4	30.9	27.4
	At Current prices	25.2	27.0	28.7	31.3	27.3
6.	Rate of net capital formation (per cent)					

TABLE 6.5 : POPULATION BY CATEGORY OF WORKERS

(in crores)

S.No.	Item	Rural	Urban	Total
1.	2001 Census			
	1.1 Total Population	74.25	28.61	102.86
	1.2 Total Workers	31.00	9.23	40.22
	1.3 Marginal Workers	8.08	0.85	8.92
	1.4 Main Workers	22.92	8.38	31.30
2.	Category of Total Workers			
	2.1 Cultivators	12.47	0.26	12.73
	2.2 Agricultural Labourers	10.24	0.43	10.68
	2.3 Household Industry Workers	1.21	0.48	1.70
	2.4 Other Workers	7.07	8.05	15.12

Note : These figures exclude those of the three sub-divisions viz, Mao Maram, Paomata and Pural of Senapati district of Manipur as Census results of 2001 in these three sub-divisions were cancelled due to technical and administrative reasons

Source : Office of the Registrar General, India, New Delhi.

TABLE 6.6 : EMPLOYMENT IN ORGANISED SECTOR

(in lakhs)

	March 1996	March 1997	March 1998	March 1999	March 2000	March 2001	March 2002	March 2003	March 2004	March 2005	March 2006	March 2007	March 2008
Public Sector													
Central Government	33.66	32.95	32.53	33.13	32.73	32.61	31.95	31.33	30.27	29.39	28.60	28.00	27.39
State Government	74.14	74.85	74.58	74.58	74.60	74.25	73.84	73.67	72.22	72.02	73.00	72.09	71.71
Quasi Government	64.58	65.35	64.61	63.85	63.26	61.92	60.20	59.01	58.22	57.48	59.09	58.61	57.96
Local Bodies	21.92	22.44	22.46	22.59	22.55	22.61	21.75	21.79	21.26	21.18	21.18	21.32	19.68
Private Sector (non-agriculture)													
Large establishments (employing 25 or more workers)	75.50	77.06	78.21	77.70	77.19	77.09	75.08	74.72	72.34	74.89	78.04	82.29	88.32
Smaller establishments (employing 10 to 24 workers)	9.61	9.79	9.27	9.28	9.27	9.43	9.24	9.49	10.12	9.63	10.01	10.46	10.43

Source : DGE&T, Ministry of Labour

TABLE 6.7 : REGISTRATIONS, VACANCIES NOTIFIED, PLACEMENTS AND NUMBER OF JOB-SEEKERS
(LIVE REGISTER) 1994-2005 (JANUARY-DECEMBER)

Year	Number of Employment Exchanges [*]	Registrations	Vacancies notified	Placements	Live Register at the end of year	Percentage increase in Live Register over previous year
1	2	3	4	5	6	7
1995	895	5,858.1	385.7	214.9	36,742.3	0.1
1996	914	5,872.4	423.9	233.0	37,429.6	1.9
1997	934	6,322.0	393.0	275.0	39,139.9	4.6
1998	945	5,852.0	358.8	233.3	40,089.6	2.4
1999	955	5,966.0	328.9	221.3	40,371.4	0.7
2000	958	6,041.9	284.5	177.7	41,343.6	2.4
2001	938	5,552.6	304.1	169.2	41,995.9	1.6
2002	939	5,064.0	220.3	142.6	41,171.2	-2.0
2003	945	5,462.9	256.1	154.9	41,388.7	0.5
2004	947	5,373.0	274.6	137.6	40,457.7	-2.2
2005	947	5,437.1	349.2	173.2	39,347.8	-2.7
2006	947	7,289.5	358.2	177.0	41,466.0	5.4
2007	965	5,434.2	525.8	263.5	39,974.0	-3.6
2008	968	5315.7	571.0	304.9	39,114.9	-2.1
2009	969	5693.7	419.5	261.5	38152.2	-2.5

* Including University Employment Information and Guidance Bureaus.

Source : DGE&T, Ministry of Labour, New Delhi

ECONOMIC CENSUS

The Central Statistical Office (CSO) undertook a countrywide Economic Census, for the first time in 1977 to provide a better frame for conducting follow-up surveys for collection of detailed information particularly from unorganized establishments. The basic information, relating to the distribution of non-agricultural establishments by activity, type of ownership, rural/urban break up and by employment size needed for preparation of a frame for conducting detailed surveys was collected in the Economic Census. The second and third Economic Censuses were conducted in 1980 and 1990 along with house listing operation of 1981 and 1991 Population Censuses respectively.

The fourth economic Census was conducted during 1998 in all States/UTs in collaboration with concerned State/UT Directorates of Economics and Statistics. The Fifth Economic Census was conducted in the year 2005 in all the States/UTs again in collaboration with State/UT Directorates of Economics & Statistics. The Census covered all entrepreneurial activities throughout the country (except crop production and plantation). The final results of Economic Census 2005 were released on 29th May, 2008. According to the results there were 41.8 million establishments in the country employing 100.9 million persons. The detailed results of the Fifth Economic Census are available on the Ministry's website viz. www.mosi.gov.in. The Ministry has proposed to conduct 6th Economic Census during 2011.

TABLE 6.8 : INDEX NUMBERS OF WHOLESALE PRICES
(Base 1993-94 = 100)

Revised Series

Major Group/Groups & Sub-Groups	F I N A N C I A L Y E A R A V E R A G E S										
	Weight	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
I. All Commodities	100.000	155.7	161.3	166.8	175.9	187.3	195.6	206.2	215.7	233.9	242.7
Primary Articles	22.025	162.5	168.4	174.0	181.5	188.1	193.6	208.7	224.4	247.3	273.6
(a) Food Articles	15.402	170.5	176.1	179.2	181.5	186.3	195.3	210.5	222.0	239.8	274.9
(b) Non-Food Articles	6.138	146.5	152.9	165.4	186.3	187.6	179.1	188.2	211.9	235.8	244.6
(c) Minerals	0.485	113.5	119.3	118.8	121.6	255.1	322.8	413.6	460.4	631.6	599.5
II. Fuel Power Light & Lubricants	14.226	208.1	226.7	239.2	254.5	280.2	306.8	323.9	327.0	351.4	343.1
III. Manufactured Products	63.749	141.7	144.3	148.1	156.5	166.3	171.4	179.0	187.8	203.1	209.6
(a) Food Products	11.538	145.7	145.4	153.0	166.7	174.9	176.8	182.5	190.2	209.3	244.7
(b) Beverages, Tobacco & Tobacco Products	1.339	179.8	193.8	204.3	205.6	216.2	226.8	243.5	268.3	294.0	309.1
(c) Textiles	9.800	119.9	119.3	122.2	131.6	135.7	129.5	132.3	130.9	138.8	147.1
(d) Wood & Wood Products	0.173	180.0	174.4	179.1	179.4	179.5	194.6	206.3	215.9	233.9	237.6
(e) Paper & Paper Products	2.044	165.4	172.8	174.0	173.3	174.6	178.5	190.7	194.2	202.7	204.3
(f) Leather & Leather Products	1.019	149.6	141.0	130.1	146.9	155.7	166.8	159.5	166.1	167.9	165.9
(g) Rubber & Plastic Products	2.388	125.5	126.0	132.6	135.0	134.5	139.1	148.2	158.9	166.3	170.2
(h) Chemicals & Chemical Products	11.931	164.4	169.0	173.9	177.2	181.7	188.2	193.9	204.6	219.5	229.1
(i) Non-Metallic Mineral Products	2.516	133.9	144.0	143.4	148.3	157.7	170.0	191.7	208.7	216.6	221.1
(j) Basic Metals, Alloys & Metal Products	8.342	140.3	140.7	145.1	167.8	203.3	218.4	233.3	248.6	285.3	257.6
(k) Machinery & Machine Tools	8.363	123.0	129.1	130.3	132.7	140.2	147.4	155.6	166.6	174.5	173.9
(l) Transport Equipment & Parts	4.295	143.4	146.8	147.5	147.4	154.3	159.0	162.4	166.8	175.5	175.7

Source : Office of the Economic Advisor, M/o Commerce and Industry, New Delhi.

TABLE 6.9 : CONSUMER PRICE INDEX NUMBER FOR
INDUSTRIAL WORKERS

Year	Mumbai	Ahmedabad	Kolkata	Chennai	Kanpur	Delhi	General	All India Food
Linking Factor	5.12	4.78	4.74	5.05	4.69	4.97	4.93	4.98
I. Base : 1982 = 100								
1993-94	279	257	264	264	262	278	258	272
1994-95	314	285	286	297	283	306	284	304
1995-96	346	309	319	336	313	331	313	337
1996-97	372	343	347	367	337	356	342	369
1997-98	412	363	369	390	360	392	366	388
1998-99	461	409	427	432	420	461	414	445
1999-2000	474	428	439	452	430	486	428	446
2000-01	512	444	456	478	430	518	444	453
2001-02	536	465	507	494	451	534	463	466
2002-03	565	480	533	519	461	556	482	477
2003-04	588	492	547	536	477	575	500	495
2004-05	610	510	568	555	494	611	520	506
2005-06*	608	522	593	567	525	652	540	526
II. Base : 2001 = 100								
Linking Factor	5.18	4.62	5.12	4.95	4.50	5.60	4.63	4.58
2006-07	128	123	124	119	127	124	125	126
2007-08	136	131	134	126	133	130	133	136
2007-08	148	141	145	139	144	140	145	153
2009-10	-	-	-	-	-	-	-	-

*Figures are average of 9 months from April-December 2005.

TABLE 6.10 : CONSUMER PRICE INDEX NUMBER
FOR URBAN NON-MANUAL EMPLOYEES

Year	Mumbai	Kolkata	Chennai	Delhi	All-India
1	2	3	4	5	6
1993-94	219	212	232	211	216
1994-95	239	229	259	229	237
1995-96	260	251	284	247	259
1996-97	285	268	311	267	283
1997-98	309	286	334	288	302
1998-99	339	316	368	338	337
1999-2000	353	328	386	359	352
2000-01	375	344	420	381	371
2001-02	395	355	456	398	390
2002-03	406	364	486	412	405
2003-04	415	382	502	425	420
2004-05	434	398	520	446	436
2005-06	450	416	543	472	456
2006-07	478	439	569	499	486
2007-08	504	476	605	521	515
2008-09	-	-	-	-	561
2009-10	-	-	-	-	634

Note : A New Series of Index Numbers of Base 1984-85 = 100 was introduced from November 1987. All India Index on New Base may be converted to Old Base (1960-100) by multiplying the New Index by conversion factor 5.32. Conversion factors in respect of Mumbai, Kolkata, Chennai, Delhi are 5.38, 4.51, 5.77 and 5.08 respectively. Reliance of Centre-wise monthly CPI (UNME) on base 1984-85=100 has been discontinued since April 2008.

Source : CSO, M/o S&PI, New Delhi.

MINISTRY OF STATISTICS AND PROGRAMME IMPLEMENTATION**(Programme Implementation Wing)**

The Infrastructure and Project Monitoring Division (IPMD) in the Ministry of Statistics and Programme Implementation monitors the performance of infrastructure sectors and Central sector projects costing ₹ 20 crore and above.

MONITORING OF INFRASTRUCTURE SECTORS

The Infrastructure and Project Monitoring Division (IPMD) in the Ministry of Statistics and Programme Implementation is monitoring the performance of the country's eleven key infrastructure sectors, namely, Power, Coal, Railways, Shipping and Ports, Telecommunications, Fertilizers, Cement, Petroleum & Roads and Civil Aviation. It prepares and submits monthly Review Reports and Capsule Reports on the performance of infrastructure sectors, *inter-alia*, to the Prime Minister office, and the Cabinet Secretariat. The growth rate in respect of each infrastructure sector since 2000-01 and the production/achievement during 2008-09 is given in the table 22.1.

MONITORING OF CENTRAL SECTOR PROJECTS

The Project Monitoring envisages monitoring of all Central Sector projects costing ₹ 20 crore and above. The threshold limit for monitoring of projects has been revised to ₹ 150 crores with effect from April 2010. In addition, it has been monitoring the progress of irrigation projects, which are being financed centrally under the Accelerated Irrigation Benefit Programme (AIBP). The Ministry, in coordination with the administrative Ministries concerned, takes up initiatives to bring about systematic improvements in various areas of project implementation. For the purpose of monitoring, the projects have been grouped into three categories viz., (i) Mega projects, each costing ₹ 1000 crore and above, (ii) Major projects, costing between ₹100 crore and 1000 crore and (iii) Medium projects, costing between Rs. 20 crore and ₹ 100 crore. While all projects are monitored on quarterly basis, projects costing ₹ 100 crore and above are monitored on monthly basis. At the end of the 4th quarter of 2009-10 there were 1005 projects with an anticipated cost of ₹ 691401.30 crore on the monitor of this Ministry. Statement of ongoing projects showing extent of time and cost overruns with respect to the latest schedule may be seen in tables 22.2-A and 22.2-B.

TWENTY POINT PROGRAMME

The Twenty Point Programme (TPP) was conceived with the objective of improving the quality of life of the people, especially those living below the poverty line. It is meant to give a thrust to schemes relating to poverty alleviation, employment generation in rural areas, housing, education, family welfare and health, protection of environment and many other schemes having a bearing on the quality of life, especially in the rural areas. The programme, initiated in the year 1975 was restructured in 1982, 1986 and in 2006. The restructured programme, known as Twenty Point Programme (TPP) – 2006, became operational with effect from 1st April, 2007.

TWENTY POINT PROGRAMME(TPP) – 2006

Twenty Point Programme (TPP)-2006 originally consisted of 20 points and 66 items being monitored individually by Central Nodal Ministries concerned. One of the 66 items viz. "Sampoorna Grameen Rozgar Yojana (SGRY)" has since been merged

with another item namely "National Rural Employment Guarantee Act" with effect from 1st April, 2008, which has now been renamed as "Mahatama Gandhi National Rural Employment Guarantee Act" (MGNREGA) w.e.f. 2nd October, 2009, therefore SGRY was dropped from the list of 66 items under TPP-2006. The list of 65 items is enclosed at annexure I.

From April, 2009, under 'Food Supply' allocation and off-take of food grains for Below Poverty Line (BPL) population is being individually monitored in addition to individual monitoring of allocation and off-take of food grains under Targeted Public Distribution System (TPDS) and Antyodaya Anna Yojna. Of the 65 items (34 parameters) were monitored monthly during 2009-10 on the basis of the monthly progress report in respect of these items supplied by various States/Union Territories (for 16 items) and the Central Nodal Ministries (for 4 items).

MONITORING DESIGN FOR TPP- 2006

The monitoring mechanism for TPP-2006 has been widened by including block level monitoring in addition to District, State and Central level monitoring. Most of the States/Union Territories have constituted the block, district and state level monitoring committees. At the Centre, the progress of individual items is monitored and reviewed by the Departments/Ministries concerned and the Ministry of Statistics & Programme Implementation (MOSPI) monitors the Programme/Schemes covered under TPP-2006 on the basis of monthly performance reports received from State Governments/UT Administrations and Central Nodal Ministries. The Monitoring Guidelines of TPP-2006 have been suitably revised based on the suggestions with respect to parameters/indicators/frequency of monitoring, etc. offered by Central Nodal Ministries and State/UT Governments and intimated to, the users and issued to States/UTs and also available on the website of the Ministry www.mospi.gov.in.

MANAGEMENT INFORMATION SYSTEM (MIS)

The Management Information System (MIS) consists of Monthly Progress Report (MPR) for monthly monitored items based on information received from States/UTs and Central Ministries concerned. The Monthly Capsule Report contains highlights of MPR. Monthly Progress Report and Monthly Capsule Report have been released up to March, 2010. The Ministry of Statistics and Programme Implementation also brings out an Annual Review Report on TPP which covers all items under TPP. The report is prepared on the basis of information received from Central Nodal Ministries and State Governments/UT Administrations and the report for 2008-09 is under final stage of preparation.

MONITORING AND IMPACT ASSESSMENT OF TWENTY POINT PROGRAMME-2006

As per the mandate given by the Cabinet, this Ministry has awarded a study to assess the impact of National Rural Guarantee Scheme (NREGS) for selected three districts of the North-East India namely Saiha (Mizoram), Mon (Nagaland) and Dhalai (Tripura) to NIRD, Guwahati. The final report of the study is yet to be submitted by NIRD, Guwahati. The Ministry has also initiated an exercise to undertake another study on Disability during 2010-11.

PERFORMANCE OF MONTHLY MONITORED ITEMS UNDER TWENTY POINT PROGRAMME (TPP) - 2006

The performance of the monthly monitored items under the TPP-2006 during April, 2009 to March, 2010 is given in the Annexure II.

Annexure-I

TWENTY POINT PROGRAMME (TPP)-2006

List of Points and Items under TPP-2006

Point No.	Item No.	Name of the Points/Items
I.		Garibi Hatao [Poverty Eradication]
		Rural Areas
	1.	Employment generation under the National Rural Employment Guarantee Act
	2.	Swaranjayanti Gram Swarozgar Yojana
	3.	Rural Business Hubs in Partnership with Panchayats
	4.	Self-help Groups
		Urban Areas
	5.	Swaranjayanti Shehari Rozgar Yojana
II.		Jan Shakti (Power to People)
	6.	Local Self Government (Panchayati Raj and Urban Local Bodies)
		- Activity Mapping for devolution of functions
		- Budget Flow of Funds
		- Assignment of Functionaries
	7.	Quick and Inexpensive Justice – Gram Nyayalayas and Nyaya Panchayats.
	8.	District Planning Committees.
III.		Kisan Mitra [Support to Farmers]
	9.	Water shed development
	10.	Marketing and infrastructural support to farmers
	11.	Irrigation facilities (including minor and micro irrigation) for agriculture
	12.	Credit to farmers
	13.	Distribution of waste land to the landless
IV.		Shramik Kalyan [Labour Welfare]
	14.	Social Security for Agricultural and Unorganised Labour
	15.	Minimum Wages Enforcement (including Farm Labour)
	16.	Prevention of Child Labour
	17.	Welfare of Women Labour

V. Khadya Suraksha [Food Security]

18. Food security:
 - (i) Targeted Public Distribution system (TPDS)
 - (ii) Antodaya Anna Yojana (AAY)
 - (iii) Below Poverty Line (BPL)
 - (iii) Establishing Grain banks in chronically food scarcity areas

VI. Subke Liye Aawas [Housing for All]

19. Rural Housing - Indira Awaas Yojana
20. EWS/LIG Houses in Urban Areas

VII. Shudh Peya Jal [Clean Drinking Water]

21. Rural Areas: Accelerated Rural Water Supply Programme
22. Urban Areas: Accelerated Urban Water Supply Programme

VIII. Jan Jan Ka Swasthya [Health for All]

23. Control and prevention of major diseases:
 - (a) HIV/AIDS (b) TB (c) Malaria (d) Leprosy (e) Blindness
24. National Rural Health Mission
25. Immunisation of Children
26. Sanitation Programme in
 - Rural Areas
 - Urban areas
27. Institutional Delivery
28. Prevention of Female Foeticide
29. Supplementary nutrition Mothers and Children
30. Two Child Norm

IX. Sabke Liye Shiksha [Education for All]

31. Sarv Shiksha Abhiyan
32. Mid Day Meal Scheme

X. Anusuchit Jaati, Jan Jaati, Alp-sankhyak evam Anya Pichhre Varg Kalyan [Welfare of Scheduled Castes, Scheduled Tribes, Minorities and OBCs]

33. SC Families Assisted
34. Rehabilitation of Scavengers
35. ST Families Assisted
36. Rights of Forest dwellers – Owners of minor forest produce
37. Primitive Tribal Groups
38. No alienation of Tribal lands
39. Implementation of Panchayats (Extension to Scheduled Areas) Act [PESA]
40. Welfare of Minorities

- 41. Professional education among all minority communities
- 42. Reservation of OBCs in
 - Education
 - Employment

XI. Mahila Kalyan [Women Welfare]

- 43. Financial Assistance for Women Welfare Scheme
- 44. Improved participation of women in
 - (a) Panchayats
 - (b) Municipalities
 - (c) State Legislatures
 - (d) Parliament

XII. Bal Kalyan (Child Welfare)

- 45. Universalisation of ICDS Scheme
- 46. Functional Anganwadis

XIII. Yuva Vikas [Youth Development]

- 47. Sports for all in Rural and Urban areas
- 48. Rashtriya Sadbhavana Yojana
- 49. National Service Scheme

XIV. Basti Sudhar [Improvement of Slums]

- 50. Number of Urban poor families assisted under seven point charter viz. land tenure, housing at affordable cost, water, sanitation, health, education, and social security.

XV. Paryavaran Sanrakshan evam Van Vridhi [Environment Protection and Afforestation]

- 51. Afforestation
 - (a) Area Covered under Plantation on - Public and Forest Lands
 - (b) Number of Seedlings planted on -Public and Forest Lands
- 52. Prevention of pollution of rivers and water bodies
- 53. Solid and liquid waste management in
 - Rural Areas
 - Urban Areas

XVI. Samajik Suraksha [Social Security]

- 54. Rehabilitation of handicapped and orphans
- 55. Welfare of the aged

XVII. Grameen Sadak [Rural Roads]

- 56. Rural Roads – PMGSY

XVIII. Grameen Oorja [Energization of Rural Area]

- 57. Bio-diesel Production
- 58. Rajiv Gandhi Grameen Vidyutikaran Yojana
- 59. Renewable Energy

- 60. Energising Pump sets
 - 61. Supply of Electricity
 - 62. Supply of Kerosene and LPG
 - XIX. Pichhara Kshetra ka Vikas [Development of Backward Areas]**
 - 63. Backward Regions Grants Fund
 - XX. e- Shasan [IT enabled e-Governance]**
 - 64. Central and State Governments
 - 65. Panchayats and Municipalities
-

MEMBER OF PARLIAMENT LOCAL AREA DEVELOPMENT SCHEME (MPLADS)

The Member of Parliament Local Area Development Scheme (MPLAD) was launched by the Government of India on 23rd December, 1993, to enable Members of Parliament to recommend works of developmental nature with emphasis on the creation of durable community assets based on the locally felt needs to be taken up in their Constituencies/States. Initially the MPLADS was under the control of the Ministry of Rural Development. The subject relating to the MPLADS was transferred to the Ministry of Statistics and Programme implementation in October, 1994. The Scheme is governed by a set of Guidelines, which have been comprehensively revised from time to time. The present Guidelines were issued in November, 2005.

Some of the salient features of the scheme are enumerated below:-

- The MPLADS is a Plan Scheme fully funded by the Government of India, under which funds are released in the form of Grants-in-Aid, as special Central Assistance to States.
- In 1993-94, when the Scheme was launched, an amount of ₹ 5 lakh per MP was allotted which was enhanced to ₹ 1 crore per annum from 1994-95 per MP constituency. This was further increased to ₹ 2 crore from 1998-99. It is released in two equal instalments of ₹ 1 crore each by the Government of India directly to the District Authorities for execution of the eligible works recommended by the MPs by following the established procedure of the concerned State Government.
- The funds released under the scheme are non-lapsable *i.e.* the funds not released in a particular year will be carried forward for making releases in the subsequent years subject to eligibility.
- Works which are developmental in nature, based on locally felt needs and available for public use at large, are eligible under the scheme.
- Examining the eligibility, sanctioning, funding, selection of implementing agencies, prioritization and overall execution, monitoring of the scheme at the ground level, is done by the District Authorities.
- The Lok Sabha Members can recommend works in their respective constituencies. The elected members of Rajya Sabha can recommend works anywhere in the State from which they are elected. Nominated Members of the Lok Sabha and the Rajya Sabha can recommend works for implementation anywhere in the country.
- Right from the inception of the Scheme, works for creation of durable assets of

ANNEXURE-II

**PERFORMANCE OF MONTHLY MONITORED ITEMS UNDER TWENTY POINT PROGRAMME-2006
FOR THE YEAR APRIL, 2009 TO MARCH, 2010**

Sl. No.	Item Name	Unit	Annual Target for 2009-10	Achievement during 2009-10	Per cent Achievement of Target
(1)	(2)	(3)	(4)	(5)	(6)
1	No. of Job cards issued	000 Nos.	@	18561	—
2	Employment generated	000 Mandays	@	10182315	—
3	Wages given	Lakh Rs.	@	27005198	—
4	No. of Individual Swarozgaris Assisted*	No.	269600	625322	232
5	No. of SHGs formed	No.	—	51617	—
6	No. of SHGs to whom income generating activities provided*	No.	155285	177843	115
7	Land distributed	Hectare	@	38781	—
8	No. of Inspections made	No.	@	95313	—
9	No. of Irregularities detected	No.	@	19580	—
10	No. of Irregularities rectified	No.	@	18292	—
11	No. of Claims filed	No.	@	2484	—
12	No. of Claims settled	No.	@	2719	—
13	No. of Prosecution cases Pending	No.	@	11315	—
14	No. of Prosecution cases filed	No.	@	15	—
15	No. of Prosecution cases decided	No.	@	65	—
16	Food Security - Off take of food grains by States/UTs under TPDS*	Tonne	47602697	42402685	89
17	Food Security - Off take of food grains by States/UTs under AAY*	Tonne	10195578	9794358	96
18	Food Security - Off take of food grains by States/UTs under BPL *	Tonne	17413031	16545424	95
19	Indira Awaas Yojana - No. of Houses constructed*	No.	4052242	3276248	81
20	EWS/LIG Houses in urban area - No. of Houses constructed*	No.	159003	90586	57

Sl. No.	Item Name	Unit	Annual Target for 2009-10	Achievement during 2009-10	Per cent Achievement of Target
(1)	(2)	(3)	(4)	(5)	(6)
21	ARWSP - Habitations covered (NC and PC)*	No.	586	508	87
22	ARWSP - Slipped back Habitations and Habitations with water quality problems addressed*	No.	158003	90586	57
23	Sanitation Programme in rural areas - No. of Individual household latrines constructed	000 Nos.	@	12519	—
24	No. of deliveries in institutions	000 Nos.	@	13785	—
25	No. of SC Families Assisted*	000 Nos.	4774	5225	109
26	No. of ICDS Blocks Operational (Cumm.)*	No.	7073	6581	93
27	No. of Functional Anganwadis (Cumm.)*	No.	1356027	1147257	85
28	No. of urban poor Families Assisted*	No.	233711	149167	6498
29	Area covered under Plantation (Public & Forest Lands)*	000 Hectares	1813	1547	85
30	Seedlings planted (Public & Forest Lands)*	Lakh Nos.	11785	10613	90
31	Length of Road Constructed (PMGSY)*	Km.	55000	60172	109
32	No. of Villages Electrified (RGGVY)*	No.	17500	16701	95
33	No. of Pump sets energized*	No.	210594	352247	167
34	Electricity supplied* (Million Unit)	MU	815659	732372	90

*Items having monthly targets and considered for ranking of States.

@ No targets were fixed.

national priorities viz., drinking water, primary education, public health, sanitation and roads, etc have been given priority.

- Special attention is given for infrastructural development of areas inhabited by Scheduled Castes and Scheduled Tribes population by earmarking 15 per cent and 7.5 per cent respectively of MPLADS funds for those areas.
- MPs can also recommend community infrastructure and public utility building works for registered Societies/Trusts subject up to a ceiling of ₹ 25 lakh. The Basic Economic Data 149 ownership of the land may remain with the Society/Trust, but the structure constructed with MPLADS funds shall be the property of State/UT Government.
- In order to undertake rehabilitation works in the areas affected by calamities in a State, Lok Sabha MPs from the non-affected areas of that State can recommend permissible works to the tune of up to ₹ 10 lakh per annum in those areas. In the event of calamity of severe nature in any part of the country, an MP can recommend works up to a maximum of ₹ 50 lakh for the affected district.
- MPs can promote education and culture of a State/UT wherefrom they are elected at a place outside that State/UT by selecting works relating to education and cultural development not prohibited under the Guidelines on MPLADS up to a maximum of ₹ 10 lakh in a financial year.
- At the time of the constitution of Lok Sabha, and election of a Rajya Sabha Member, the first instalment of ₹ 1 crore will be released to the District Authorities.
- To bring in more financial accountability, furnishing the Utilization Certificate for the previous financial year and the Audit certificate for the funds released for the MP concerned in the year prior to the previous year are also pre-requisites for release of the second instalment. The first instalment of the fund will be released in the beginning of the financial year, subject to the condition that second instalment of the previous year was released for the MP concerned. The normal financial and audit procedures prevalent in the states in which the works are executed apply with regard to the implementation of the works.
- An important initiative for physical monitoring of MPLADS works has also been taken by the Ministry. The task has been assigned to NABARD Consultancy Services (NABCONS). In the first and second phases, the work of physical monitoring has been taken up in 73 districts across the country and NABCONS has filed reports. In the third phase, 60 more districts have been selected for physical monitoring of works under the Scheme. This step will further strengthen transparency and accountability of the Scheme.

Impact of the Scheme

Since its inception, the Scheme has immediately benefited the local community by meeting their various developmental needs such as drinking water facility, education, electricity, health and family welfare, irrigation, non-conventional energy, community centres, public libraries, bus stands/stops, roads, pathways and bridges etc.

Scheme Performance (as on 30th June, 2010)

- ₹ 21,418.25 crore has been released, since the inception of the Scheme.
- As per the reports received from the Districts, an expenditure of ₹ 1947.32 crore has been incurred. The percentage utilization over release is 90.92.
- Approximately 11.84 lakh works have been sanctioned and 10.35 lakh works have been completed, as on 30.06.2010, since the inception of the scheme. The percentage of works completed to sanctioned ones is 91.64.

**PROGRESIVE STATUS OF FUNDS RELEASED BY GOI AND EXPENDITURE
INCURRED BY DISTRICT AUTHORITIES**

(₹ in crore)			
As on	Release by GOI	Expenditure incurred	% Utilisation over release
31.03.1998	2837.80	1549.02	54.59
31.03.1999	3626.39	2315.40	63.85
31.03.2000	5017.80	3813.14	75.99
31.03.2001	7097.80	4649.49	65.51
31.03.2002	8897.80	6610.18	74.29
31.03.2003	10497.80	8272.70	78.80
31.03.2004	12179.80	10009.38	82.18
31.03.2005	13489.90	11918.49	88.35
31.03.2006	14923.70	13562.46	90.87
31.03.2007	16375.20	14579.83	89.04
31.03.2008	17845.75	16086.28	90.14
30.03.2009	19425.75	18057.91	92.96
30.06.2010	21418.25	19474.32	90.92

TABLE 22.1 : GROWTH RATE OF INDUSTRIAL INFRASTRUCTURE SECTORS

Sl. No	Sector	Growth Rate (in %age)											
		2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	Actuals	2008-09
		per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent		
1.	Power	3.9	3.1	3.2	5.0	5.2	5.1	7.3	6.3	2.5	6.8	771.55	(BU)
2.	Coal	3.6	4.2	4.4	5.6	6.1	6.4	5.9	6.0	8.2	8.0	526.15	(MT)
3.	Finished Steel @	6.7	4.3	9.2	13.7	7.6	10.8	12.2	6.8	13.2	3.2	65.46	(MT)
4.	Railway Revenue Earning Freight Traffic	3.7	4.0	5.3	7.5	8.1	10.7	9.2	9.0	4.9	6.6	887.99	(MT)
5.	Cargo Handled at Major Ports	3.4	2.4	9.0	10.0	11.3	10.4	9.5	12.0	2.2	5.7	560.97	(MT)
6.	Telecommunications:												
	a) Addition in Switching Capacity	6.4	-2.6	-35.6	0.1	49.8	85.8	-23.0	-25.4	101.0	-3.6	13880.22	(000' Lines)
	b) Telephone Connections	20.5	-4.7	-39.8	148.8	-17.7	123.3	-19.6	83.7	-	-	-1007.93	(000')
	c) Cellphone connections	-	-	119.2	115.3	10.4	89.4	85.4	38.3	80.9	47.3	192530.13	(000')
7.	Fertilizers	2.9	-0.5	-1.1	-1.4	8.0	1.1	3.3	-8.6	-2.6	13.2	16.22	(MT)
8.	Cement	-2.8	9.5	8.8	6.1	8.2	10.7	9.4	7.8	7.6	10.1	206.61	(MT)
9.	Petroleum												
	a) Crude Oil	1.5	-1.2	3.2	1.0	1.8	-5.3	5.6	0.4	-1.8	0.5	33.69	(MT)
	b) Refinery	20.3	3.7	4.9	8.2	4.3	2.4	12.6	6.5	3.0	-0.4	160.12	(MT)
	c) Natural Gas	3.6	0.8	5.7	1.8	-0.6	1.4	-1.4	2.1	1.4	44.8	47573	(MCM)
10.	Civil Aviation												
	a) Export Cargo Handled	5.1	4.1	13.3	1.0	12.4	7.3	3.6	7.5	3.4	10.4	593234	(Tonnes)
	b) Import Cargo Handled	3.6	-1.0	18.6	13.4	24.2	15.8	19.4	19.7	-5.7	7.9	463289	(Tonnes)
	c) Passengers handled at International Terminals	4.6	-5.0	4.8	6.5	14.0	12.8	12.1	11.9	3.8	5.7	231.76	(Lakh)
	d) Passengers handled at Domestic Terminals	7.7	-5.7	9.6	13.1	23.6	27.1	34.0	20.6	-12.1	14.5	492.29	(Lakh)
11.	Roads ^^												
	Upgradation of Highways												
	a) NHAI	-	-	-	-	207.9	-69.1	-12.5	164.6	30.9	21.4	2674	(Kms)
	b) NH(O) & BRDB	-	-	-	-	-3.1	35.7	-10.5	12.5	17.3	4.0	2315	(Kms)

BU - Billion Units MT - Million Tonnes MCM - Million cubic metre @ Finished steel

^^ Includes Widening to four lanes & two and Strengthening of existing weak pavement only.

TABLE 22.2 : EXTENT OF COST AND TIME OVERRUN IN PROJECTS WITH RESPECT TO LATEST SCHEDULE (AS ON 31.3.2010)

TABLE : 22.2 (A) EXTENT OF TIME OVERRUN IN PROJECTS WITH RESPECT TO LATEST SCHEDULE
(As on 31.03.2010)

S. No.	Sector	No. of Projects	Total cost (Rs. Cr.)			Cost overrun (%)	No.	Projects with time overrun			Range (Months)
			Latest approved	Anticipated cost	Anticipated cost			Latest approved	Anticipated cost	Range (Months)	
1.	Atomic Energy	5	25,054.3	26,308.3	5.0	1	3,492.0	5,677.0	62.6		
2.	Civil Aviation	48	8,178.2	8,233.2	0.7	5	1,439.7	1,537.5	6.8		
3.	Coal	128	3,6887.3	38,853.5	5.3	16	7,471.5	9,807.8	31.3		
4.	Information & Broadcasting	1	35.0	35.0	-	-	-	-	-		
5.	Mines	1	35.0	35.0	-	-	-	-	-		
6.	Steel	49	46,781.6	54,354.6	16.2	21	25,858.4	33,548.5	29.7		
7.	Petroleum	81	1,54,285.9	1,72,508.0	11.8	18	36,065.0	58,860.6	63.2		
8.	Power	90	1,68,113.7	1,70,960.5	1.7	18	13,129.6	16,101.4	22.6		
9.	Health & Family Welfare	1	422.6	443.2	4.9	1	422.6	443.2	4.9		
10.	Railways	266	72,448.6	1,07,236.7	48.0	177	49,521.4	84,500.1	70.9		
11.	Road Transport & Highways	171	45,659.3	45,838.3	0.4	8	1,640.8	2,137.1	30.3		
12.	Shipping & Ports	58	25,648.5	26,192.5	2.1	16	6,256.7	7,016.0	12.1		
13.	Telecommunications	48	17,214.6	17,273.2	0.3	6	1,915.9	2,439.1	27.3		
14.	Urban Development	55	19,633.3	17,799.0	-9.3	4	8,889.0	9,013.0	1.4		
15.	Water Resources	1	542.9	1187.0	118.6	1	542.9	1,187.0	118.6		
16.	Information Technology	2	64.9	86.9	33.8	1	20.0	42.0	109.8		
Total		1005	6,25,062.2	6,91,401.4	10.6	293	1,56,665.5	2,32,310.3	48.3		

TABLE : 22.2 (B) EXTENT OF COST OVERRUN IN PROJECTS WITH RESPECT TO LATEST SCHEDULE
(As on 31.03.2010)

S. No.	Sector	No. of Projects	Total cost (Rs. Cr.)			Cost overrun (%)	No.	Projects with cost overrun			% Increase Base
			Latest approved	Anticipated cost	Latest approved			Latest approved	Anticipated cost	Increase Base	
1.	Atomic Energy	5	25,054.3	26,308.3	5.0	4	23,948.0	35,202.0	12-33		
2.	Civil Aviation	48	8,178.2	8,233.2	0.7	20	3,441.0	3,475.3	1-20		
3.	Coal	128	3,6887.3	38,853.5	5.3	70	21,717.1	23,479.7	5-192		
4.	Information &	1	35.0	35.0	-	0	0.0	0.0	-		
5.	Mines	1	35.0	35.0	-	0	0.0	0.0	-		
6.	Steel	49	46,781.6	54,354.6	16.2	21	34,120.1	39,852.1	6-25		
7.	Petroleum	81	1,54,285.9	1,72,508.0	11.8	40	85,197.5	1,05,231.8	1-74		
8.	Power	90	1,68,113.7	1,70,960.5	1.7	41	87,259.3	89,234.7	2-78		
9.	Health & Family Welfare	1	422.6	443.2	4.9	0	0.0	0.0	-		
10.	Railways	266	72,448.6	1,07,236.7	48.0	71	30,128.2	44,947.5	3-225		
11.	Road Transport & Highways	171	45,659.3	45,838.3	0.4	142	35,805.4	35,945.4	1-90		
12.	Shipping & Ports	58	25,648.5	26,192.5	2.1	20	10,296.7	10,531.7	3-120		
13.	Telecommunications	48	17,214.6	17,273.2	0.3	30	11,296.1	11,593.5	1-62		
14.	Urban Development	55	19,633.3	17,799.0	-9.3	18	9,454.4	9,451.2	1-64		
15.	Water Resources	1	542.9	1187.0	118.6	1	542.9	1,187.0	60-60		
16.	Information Technology	2	64.9	86.9	33.8	0	0.0	0.0	-		
Total		1005	6,25,062.1	6,91,401.3	10.6	478	3,53,206.7	4,00,131.9	-		

7 Commerce

FOREIGN trade sector plays a crucial role in India's economy growth. The composition and direction of India's foreign trade has undergone substantial changes, particularly, after the liberalization process which began in the early 1990s. Our major exports now includes manufacturing goods such as Engineering Goods, Petroleum Products, Chemicals and allied Products, Gems and Jewellery, Textiles, Electronic Goods, etc. which constitute over 80 per cent of our export basket. On the other hand, major import items constitute capital goods and intermediates which not only support the manufacturing sector but also supplies raw-materials for the export oriented units. Over the years, India's trade with countries of Asia and ASEAN and Africa has gone up substantially. Apart from that, India is now a major player in global trading system and all the major sectors of Indian economy are linked to world outside either directly or indirectly through international trade.

TABLE 7.1 : INDIA'S FOREIGN TRADE

(₹ crore)

Year	Exports	Imports	Total trade	Balance of Trade
1991-92	44042	47851	91893	-3809
1992-93	53688	63375	117063	-9687
1993-94	69751	73101	142852	-3350
1994-95	82674	89971	172645	-7297
1995-96	106353	106353	229031	-16325
1996-97	209018	245200	454218	-36182
1997-98	130101	154176	284277	-24075
1998-99	139753	178332	318085	-38579
1999-2000	159561	215236	374797	-55675
2000-01	203571	230873	434444	-27302
2001-02	209018	245200	454218	-36182
2002-03	255137	297206	552343	-42069
2003-04	293367	359108	652475	-65741
2004-05	375340	501065	876405	-125725
2005-06	456418	660409	1116827	203991
2006-07	571779	840506	1412285	-268727
2007-08	655864	1012312	1668176	-356448
2008-09	840755	1374436	2215191	-533681
2009-10	845534	1363736	2209270	-518202

Sources : DGCI and S, Kolkata

TRADE SCENARIO

India's total external trade (exports plus imports including re-exports) in the year 1991-92 stood at ₹ 91,893 crore. Since then, it has witnessed significant increase with occasional slowdown. During 2008-09 the value of India's external trade reached ₹ 22,15,191 crore. A statement indicating India's export, import, total value of foreign trade and balance of trade from the year 1991-92 to 2009-10, in rupee terms, is given in table 7.1.

India's exports during 2009-10 reached a level of ₹ 8,45,534 crore registering a growth of 0.57 per cent. In US \$ terms, exports reached a level of US\$ 178.8 billion, registering a negative growth of -3.5 per cent as compared to a growth of 13.6 per cent during the previous year. The growth of exports during 2008-09 exhibited a significant slow-down from September 2008 onwards. While, during the first half of the year 2008-09, April-September, exports increased by 41.8 per cent with almost all the major commodity groups, except marine products, handicrafts and carpets, recording significant growth, Indian merchandise exports underwent significant adverse impact since October 2008 in the wake of global economic slowdown and the shrinkage of the demand worldwide. In May 2009, exports declined by as high as 34.2 per cent in terms of US dollar. The downward trend was arrested from October 2009 and since then, there has been growth in Indian exports. Major export sectors/products, which have registered negative growth in exports in 2009-10 were handicrafts, textiles, leather and leather products, engineering, electronics, chemicals and minerals including processed minerals.

During 2009-10 imports reached a level of ₹ 1363736 crore from a level of ₹ 1374436 crore in 2008-09 registering a negative growth of 0.78 per cent in rupee terms. In US \$ terms, imports reached a level of US \$ 288.37 billion in 2009-10 registering a negative growth of -5.05 per cent. Oil imports were valued at US \$ 85.47 billion, which was lower by 8.7 per cent over the previous year. Non-Oil imports increased to US \$ 193.2 billion, which was lower by 8 per cent. Items which registered significant growth are Pearl, Precious and Semi-Precious Stones. Fertilizer, Coal, Inorganic Chemicals, Project Goods, etc.

Trade deficit decreased during 2009-10 to Rs. (-) 518202 crore as against ₹ (-) 533681 crore during 2008-09. In US \$ terms also, trade deficit decreased to US \$ 109.6 billion from a level of US \$ 118.4 billion during 2008-09.

India has trading relations with all the major trading blocks and geographical regions of the world. Region and sub region-wise spread of India's trade during 2008-09 and 2009-10 is given in table 7.2. During the period 2009-10, the share of Asia and ASEAN region comprising South Asia, East Asia, North East Asia, WANA and ASEAN accounted for 53.93 per cent of India's total exports. The share of Europe and America in India's exports stood at 21.56 per cent and 15.02 per cent respectively of which EU countries (27) comprises 20.17 per cent. During the period, UAE (13.4 per cent), has been the most important country of export destination followed by USA (10.9 per cent), China (6.5 per cent), Hong Kong (4.4 per cent), Singapore (4.2 per cent), Netherlands (3.6 per cent), U.K. (3.5 per cent), Germany (3 per cent), Saudi Arabia (2.2 per cent) and France (2.1 per cent)

Asia and ASEAN accounted for 60.9 per cent of India's total imports during the period followed by Europe (9.21 per cent) and America (10.2 per cent). Among individual countries the share of China stood highest at (10.7 per cent) followed by

UAE (6.8 per cent), Saudi Arabia (5.95 per cent), USA (5.9 per cent), Switzerland (5.1 per cent), Australia (4.3 per cent), Iran (4 per cent), Germany (3.6 per cent), Indonesia (3 per cent) and Korea Republic (2.97 per cent)

TABLE 7.2 : DIRECTION OF INDIA'S TRADE

(₹crore)

Region	Exports		Import	
	2008-09 (Apr-Mar)	2009-10 (Apr-Mar)(P)	2008-09 (Apr-Mar)	2009-10 (Apr-Mar)(P)
1. Europe	1,91,493	1,82,246	2,59,064	2,60,517
1.1 EU countries 27)	1,79,214	1,70,454	1,94,435	1,81,231
1.2 Other WE countries	11,695	11,222	64,486	79,003
1.3 East Europe	583	570	143	283
2. Africa	51,671	48,831	85,390	97,468
2.1 Southern Africa	14,284	15,670	32,917	47,861
2.2 West Africa	15,466	14,850	50,172	46,505
2.3 Central Africa	1,772	1,658	640	1,267
2.4 East Africa	20,150	16,654	1,661	1,836
3. America	1,30,573	1,26,978	1,40,961	1,39,123
3.1 North America	1,02,705	97,708	96,115	90,238
3.2 Latin America	27,868	29,270	44,846	48,886
4. Asia and ASEAN	4,37,487	4,55,776	8,52,062	8,25,468
4.1 East Asia	7,992	8,005	53,654	61,608
4.2 ASEAN	86,525	85,773	1,19,421	1,20,362
4.3 WANA	1,88,118	1,86,255	4,04,626	3,83,151
4.4 NE Asia	116,028	135,784	266,097	2,52,698
4.5 South Asia	38,823	39,959	8,264	7,648
5. CIS and Baltics	8,729	7,979	30,268	28,688
5.1 CARs Countries	1,183	1,277	1,203	1,008
5.2 Other CIS Countries	7,546	6,703	29,064	27,680
6. Unspecified Region	20,802	23,315	6,690	5,204
Total	8,40,755	8,45,534	1,374,436	1,363,736

(P) Provisional data

Data Source : DGCIS, Kolkata

EXPORTS BY PRINCIPAL COMMODITIES

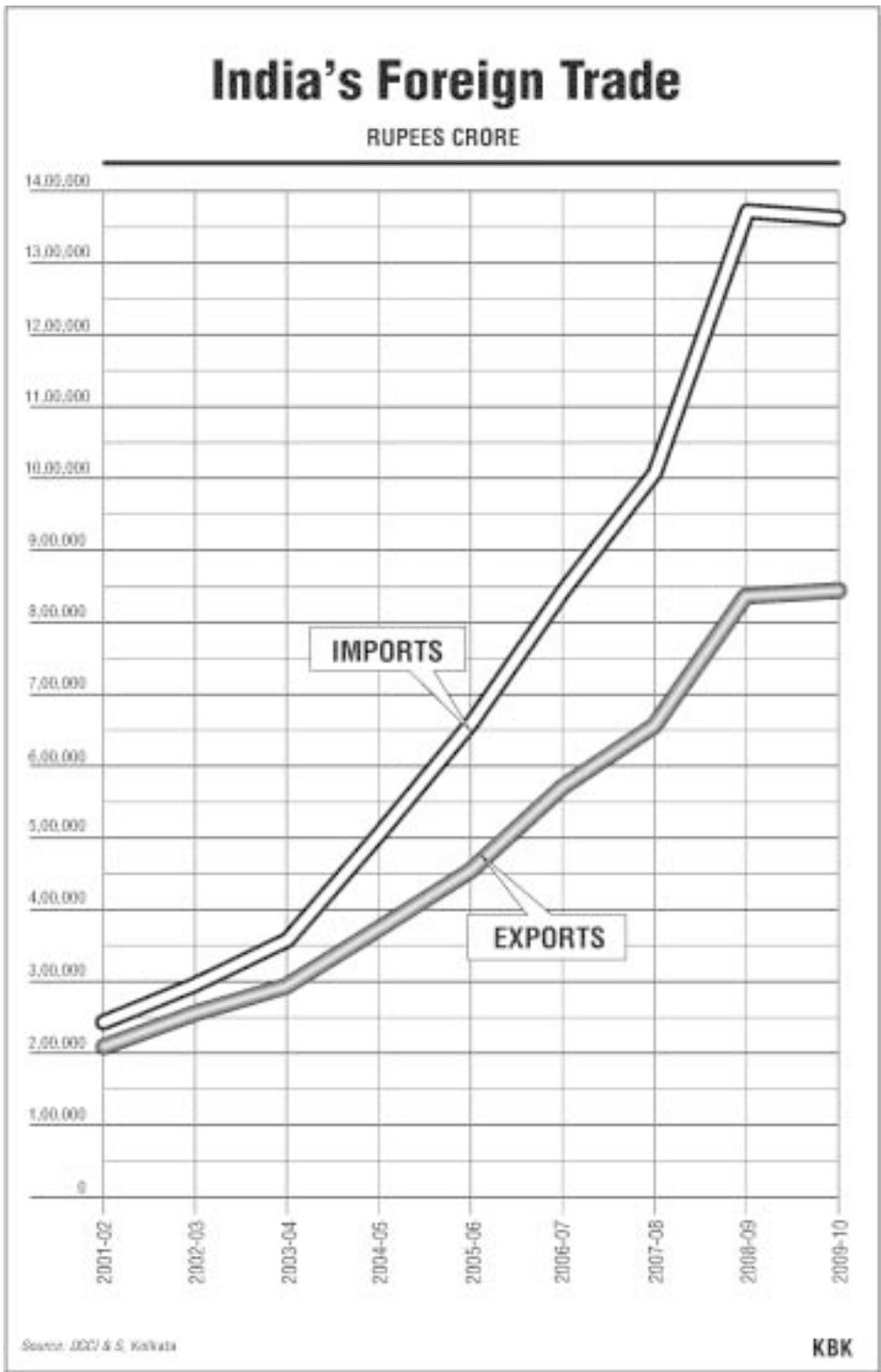
Disaggregated data on exports by Principal Commodities, in Rupee terms, for the period 2009-10 as compared with the corresponding period of the previous year are given in Table 7.3. Exports during the period was mainly driven by petroleum products, plastics and linoleum, chemicals and allied products, pharmaceutical products, Agriculture products, gems and jewellery, plantation and marine products. The top five Principal Commodity Groups in India's total exports basket during

2009-10 include Engineering Goods (18.1 per cent), petroleum Products (15.7 per cent), Gems and Jewellery (16.2 per cent), chemical including pharmaceuticals (8.8 products) and Textiles (6 per cent_.

TABLE 7.3 : INDIA'S EXPORT (by selected major commodities)
For the year 2008-09 and 2009-10

		(₹ crore)	
Sl. No.	Item Group	2008-09	2009-10
1.	Tea	2688.87	2943.53
2.	Coffee	2255.76	2032.06
3.	Rice	11,164.40	11,254.90
4.	Tobacco	3461.05	4344.40
5.	Spices	6338.42	6157.33
6.	Cashew	2900.97	2801.58
7.	Oil Meals	10269.24	7831.79
8.	Fruits and Vegetables	5110.61	5963.10
9.	Marine Products	7066.37	9899.98
10.	Iron Ore	21725.20	28366.09
11.	Mica, Coal and Other Ores, Minerals including processed minerals	14151.82	12731.52
12.	Leather and Leather Manufacturers	15931.25	15550.73
13.	Gems and Jewellery	128575.19	137567.99
14.	Drug, Phrmcutes and Fine Chemls	40421.71	42455.66
15.	Other Basic Chemicals	31458.29	32350.54
16.	Engineering Goods	183997.80	154319.79
17.	Electronic Goods	31301.35	25895.44
18.	Computer Software	1556.67	859.44
19.	Cotton Yarn/Fabs/made-ups, Handloom products etc.*	18929.54	18731.94
20.	Man-made Yarn/Fabs/made-ups etc.	13918.75	17092.45
21.	RMG of all Textiles	50293.48	50791.00
22.	Jute Mfg. including Floor Covering	1375.78	1033.09
23.	Carpet	3565.04	3482.33
24.	Handicrafts excl. hand made carpet	1384.19	1066.58
25.	Petroleum products	123397.91	132899.02
26.	Plastic and Linoleum	13817.32	15912.84
	Sub-Total	747056.97	744335.15
	Total	840755.06	845533.64

* Handloom Products has been separately included in the Principal Commodities with effect from Apr. 2009 onwards



IMPORTS BY PRINCIPAL COMMODITIES

Disaggregated data on imports by principal commodities, in ₹ terms, for the period 2009-10, as compared to the corresponding period of the previous year are given in Table 7.4. Imports during the period was mainly driven by commodities such as Petroleum crude and products, Fertilizers manufactured, Pearls Precious and semi-precious stones, coal, coke and briquettes, inorganic chemicals, vegetable oils, manufactures of metals, project goods etc.

The share of top five Principal Commodities in India's total imports during 2009-10 include Petroleum Products (30 per cent), Gold and silver (9.5 per cent), Machinery (7.8 per cent), electronic goods (7.2 per cent), Pearls, Precious and semi-precious Stones (5.4 per cent).

TABLE 7.4 : INDIA'S IMPORT (by Selected Commodities)
For the year 2008-09 and 2009-10

(₹ crore)			
Sl. No.	Item Group	2008-09	2009-10
1.	Cotton Raw and Waste	1690.18	1241.37
2.	Vegetable Oil (Fixed)	15819.01	26483.32
3.	Pulp and Waste paper	3680.91	9813.37
4.	Textile yarn Fabric, made-up articles	11155.67	4178.13
5.	Fertilisers, Crude and manufactures	59568.67	5365.81
6.	Sulphur and Unroasted Iron Parts	2874.79	31754.79
7.	Metalliferous ores and metal scrap	36330.97	681.95
8.	Coal, Coke and Briquettes, etc	45947.99	36449.89
9.	Petroleum, Crude and products*	419945.62	42511.08
10.	Wood and Wood products	6034.90	411649.06
11.	Organic and Inorganic Chemicals	56015.96	7461.20
12.	Dyeing/tanning/colouring mtrls.	3781.53	56472.71
13.	Artificial resins, plastic materials, etc.	18108.82	4284.16
14.	Chemical material and products	9613.70	23674.74
15.	Newsprint	3720.33	10874.27
16.	Pearls, precious and Semi-precious stones	76129.98	2244.60
17.	Iron and Steel	43531.27	76678.27
18.	Non-ferrous metals	26202.61	39097.51
19.	Machine tools	10368.56	14264.02
20.	Machinery, electrical and non-electrical	115769.89	7855.25
21.	Transport equipment	60803.24	108154.08
22.	Project goods	14668.02	55471.94
23.	Professional instrument, Optical goods, etc.	20210.78	22216.50
24.	Electronic goods	107127.57	17156.95
25.	Medcni. and Pharmaceutical products	8648.90	99418.61
26.	Gold and Silver	100466.52	9959.00
	Sub-Total	1278216.39	140440.36
	GRAND TOTAL	1374435.47	1363735.55

EXPORT PROMOTION MEASURES

Export promotion being a constant endeavour of the government, export performance is constantly monitored and export strategy and export policies are formulated. In the Foreign Trade Policy for the years 2009-14 announced on 27th August, 2009, the Government spelt out a bold vision to double India's exports of goods and services by 2014 and to double India's percentage share of global trade by 2020 and to focus on the generation of additional employment. Stability of trade policy regime and need based support measures extended from time have yielded positive results since the inception of the Foreign Trade Policy (FTP) 2009-14, India's merchandise export growth have turned positive since October 2009.

MULTILATERAL TRADE ISSUES AND INITIATIVES

The Doha Round of trade negotiations at the World Trade Organisation (WTO) has been underway since 2001. The negotiating mandate of the Round as agreed by all the members of the WTO is contained in the Doha Ministerial Declaration of 14th November 2001; further elaborated and complemented by the General Council Decision of 1st August 2004 and the Hong Kong Ministerial Declaration of 18th December, 2005.

The negotiations cover several areas such as agriculture, market access for non-agricultural products, service, trade-related intellectual property rights, rules (covering antidumping and subsidies), trade facilitation etc. The conduct, conclusion and entry into force of the outcome of the negotiations are parts of a single undertaking, i.e. "nothing is agreed until everything is agreed".

CHRONOLOGY OF IMPORTANT EVENTS IN DOHA ROUND OF WTO TALKS

The years 2007 and 2008 saw intensive discussions and considerable progress on many elements of the Agriculture and Non-Agricultural Market Access (NAMA) modalities, but the Round could not be concluded.

A mini-Ministerial meeting of WTO Members held in July 2008 ended without any agreement on some key issues such as the special safeguard mechanism (SSM) in agriculture and sectorial initiatives in NAMA (non agricultural market access).

The Chairs of the WTO negotiating Groups on Agriculture and NAMA brought out revised modalities texts on 6th December, 2008 which are still under discussion in the WTO.

India took the initiative to organise an informal Ministerial conference of about 30 Ministers on in September, 2009 in order to re-energise the multilateral process. The stalled negotiations resumed in Geneva thereafter.

A regular Ministerial Conference of the WTO took place from 30th November to 2 December, 2009. The general theme for discussion was "The WTO, the Multilateral Trading System and the Current Global Economic Environment."

This was the first full Ministerial meeting of the WTO in the aftermath of the global economic meltdown. The Conference provided Members with an opportunity to collectively discuss the world economic scenario, challenges faced by the multilateral trading system and to review the working of the WTO. While the Conference was not intended as a negotiating forum, it provided a platform for different groups and caucuses to access the direction of the negotiations. India and her coalition partners reiterated their commitment to uphold the development dimension, the

centrality of the multilateral process and the need to safeguard livelihood concerns, particularly of the poor, subsistence farmers in their countries. The Conference also provided a useful opportunity for bilateral discussions with several Member countries, which would feed into the multilateral process leading to greater clarity of approaches and interests.

CURRENT NEGOTIATIONS IN WTO

Technical level discussions have taken place through 2009 and 2010 but there has been no progress on substantive issues. At a stocktaking exercise of negotiations held in the WTO in March 2010, members in general expressed a willingness to continue working towards an early conclusion of the Round based on established principles of multilateral engagement, building upon the progress already made in the negotiations. The importance of the development dimension was also emphasized.

Discussions in various Negotiating Groups are ongoing. Simultaneously, groups have been constituted on specific issues at the Ambassadorial level to discuss the process of taking the Doha Round negotiations forward.

India's stand in the WTO negotiations is unequivocal: the protection of the poor, subsistence farmers of developing countries and vulnerable industries is a priority. There is no question of compromising on these issues. If anything, it is the developed countries which have to muster the political will to compromise on some of the generous carve-outs that they are seeking in this Round. In order to complete the Doha Round, WTO Members have to agree on the modalities for Agriculture and NAMA and also complete negotiations in all the areas covered under the Doha Work Programme.

The main negotiating issues and the key elements from India's perspective in the Doha Round are :

Agriculture

- Substantial and effective reductions in overall trade-distorting domestic support (OTDS) by developed countries;
- Self designation of an appropriate number of Special Products (SPs);
- An operational and effective Special Safeguard Mechanism (SSM); and
- Tariff simplification and tariff capping of developed country tariffs.

NAMA

- Adequate and appropriate flexibilities for protecting economically vulnerable industries;
- participation in sectoral initiatives on a non-mandatory and good faith basis without prejudgement of the final outcome. The special and differential treatment for developing countries must be substantial.
- Non tariff barrier (NTB) textual proposals with wide support such as the Horizontal Mechanism must be taken up on a more serious note.

SERVICES

- Qualitative improvement in the revised offers especially on Modes 1 (cross border supply) and 4 (movement of natural persons); and
- Appropriate disciplining of domestic regulations by developed countries.

Rules

- Clarifying and improving the Anti dumping Agreement and the Agreement on

Subsidies and Countervailing Measures (ASCM), while preserving the basic concepts, principles and effectiveness of these Agreements.

- New disciplines of fisheries subsidies, prohibition of certain forms of fisheries subsidies that contribute to overcapacity and over-fishing.
- Appropriate and effective special and differential treatment for developing and least-developed Members.

TRIPS

- Establishing a clear linkage between the TRIPS Agreement and the Convention on Bio-diversity (CBD) by incorporating specific disclosure norms for patent applications; and
- Enhanced protection for geographical indications (GIs) other than wines and spirits.

Duty Free Tariff Preference Scheme (DFTP) for LDCs

There has been a growing acceptance globally that the Least Developed Countries (LDCs) have to be provided integrated development assistance to help in their economic development. With this in view, it was decided during the WTO's Hong Kong Ministerial Meeting held in December 2005 that all developed countries, and developing countries declaring themselves in a position to do so, would provide Duty Free Quota Free (DFQF) market access for all products originating from all LDCs.

India is one of the first developing countries to implement DFQF for LDCs through DFTP Scheme, announced by the Prime Minister on 8th April 2008, at the India-Africa Forum Summit. The Scheme provides for duty free market access on 85 per cent of India's total tariff lines to be implemented over a period of 5 years with 20 per cent reduction in each year and Margins of Preference (MOP) on 9 per cent tariff lines to be implemented over a period of 5 years with 5 equal cuts. This Scheme provides duty free and preferential market access on tariff lines that constitutes 92.5 per cent of global exports of LDCs.

Important products of export interest for LDCs covered in the scheme: (94 per cent of India's Tariff Lines) include Cotton, Cocoa, Aluminium ores, Copper ores, Cashew nuts, Cane sugar, readymade garments, Fish fillets and Non-industrial diamonds. All 49 LDCs, of which 33 in Africa are eligible for the scheme.

Aid for Trade : (AfT)

India's Aid for Trade aims to help developing countries, particularly least-developed countries, develop the trade-related skills and infrastructure that is needed to implement and benefit from WTO agreements and to expand their trade. India has been actively involved with this initiative, initially as a member of AIT task force when it was set up in 2006. India is contributing to AfT through its Indian Technical and Economic Cooperation (ITEC) Programme under the Ministry of External Affairs.

Capacity Building and Technical Assistance

Implementation of various capacity building programmes are in full swing such as enhancement of ICCR and ITEC scholarships, training programme for mid to senior level WTO negotiations from all LDCs, training for acceding Developing Countries and focused training/other assistance to countries Malawi, Lesotho, Zambia and Ethiopia in Africa under the AfT programme. Need assessment and project formulation are also underway.

SPECIAL ECONOMIC ZONES (SEZS)

India was one of the first in Asia to recognise the effectiveness of the Export Processing Zone (EPZ) model in promoting exports, with Asia's first EPZ set up in Kandla in 1965. Seven more zones were set up thereafter. However, the zones were not able to emerge as effective instruments for export promotion on account of the multiplicity of controls and clearances, the absence of world-class infrastructure, and an unstable fiscal regime. While correcting the shortcomings of the EPZ model, some new features were incorporated in the Special Economic Zones (SEZs) Policy announced in April 2000. This policy intended to make SEZs an engine for economic growth supported by quality infrastructure complemented by an attractive fiscal package, both at the Centre and the State level, with the minimum possible regulations.

The salient features of the SEZ Scheme are :-

- A designated duty free enclave to be treated as foreign territory only for trade operations and duties and tariffs.
- No licence required for import.
- Manufacturing or service activities allowed.
- SEZ units to be positive net foreign exchange earner within three years.
- Domestic sales subject to full customs duty and import policy in force.
- Full freedom for subcontracting.
- No routine examination by customs authorities of export/import cargo.

In order to impart stability to SEZ regime and to achieve generation of greater economic activity and employment through the establishment of SEZs, a Special Economic Zone Act has been enacted. The SEZ Act, 2005, supported by SEZ Rules, came into effect on 10th February, 2006. Incentives and facilities offered to units in SEZs under the Act, for promotion of investment, including foreign investment include: duty free import/domestic procurement of goods for development, operation and maintenance of SEZ units, 100 per cent Income Tax exemption on export income for SEZ units under Section 10AA of the Income Tax Act for first 5 years, 50 per cent for next 5 years thereafter and 50 per cent of the ploughed back export profit for next 5 years, exemption from Central Sales Tax, exemption from Service Tax and single window clearance mechanism for establishment of units.

All the 8 Export Processing Zones (EPZs) located at Kandla and Surat (Gujarat), Santa Cruz (Maharashtra), Cochin (Kerala), Chennai (Tamil Nadu), Visakhapatnam (Andhra Pradesh), Falta (West Bengal) and Noida (U.P.) have been converted into Special Economic Zones.

In short span of about three years, SEZs Act and rules were notified in February, 2006, formal approvals have been granted for setting up of 577 SEZs out of which 363 have been notified. Out of the total employment provided to 5,50,323 lakh persons in SEZs as a whole 4,15,619 persons is incremental employment generated after February, 2006 when the SEZ Act has come into force. This is apart from the million of man days of employment created by the developer of infrastructure activities. Physical exports from SEZs have increased from ₹ 99,689 crore in 2008-09 to ₹ 2,20,711.39 crore in 2009-10, registering a growth of 121 per cent. There has been overall growth of export of 1493 per cent over past seven years (2003-04 to 2009-10). These figures establish beyond doubt that the response to the SEZ policy of the Central Government has been overwhelming and the scheme has been able to achieve the envisaged

objectives. An investment of ₹ 1,66,526.43 crore has been made in SEZs. This includes Foreign Direct Investment of 17,683.56 crore.

Exports from the functioning SEZs during the last five years are as under:

(₹ Crore)		
Year	Value (₹ Crore)	Growth Rate (over previous Year)
2005-2006	22,840	25%
2006-2007	34,615	52%
2007-2008	66,638	93%
2008-2009	99,689	50%
2009-2010	2,20,711	121%

A total of 114 SEZs are making exports. Out of this 69 are IT/ITES, 14 Multi product and 31 other sector specific SEZs. The total number of units in these SEZs is 3,048.

Impact of the SEZ Scheme

The overwhelming response to the SEZ scheme is evident from the flow of investment and creation of additional employment in the country. The SEZ scheme has generated tremendous response amongst the investors, both in India and abroad, which is evident from the following details of certain SEZs which have recently come up:

- Nokia Special Economic Zone in Tamil Nadu (Telecom equipments SEZ).
- Mahindra City SEZ, Tamil Nadu (Apparels and fashion accessories; IT/ Hardware; auto ancillary).
- Apache SEZ (Adidas Group) in Andhara Pradesh (Footwear SEZ).
- Mundra Port and Special Economic Zone, Gujarat (Multi product SEZ).
- Moser Baer SEZ, Noida, Uttar Pradesh (SEZ for Non-conventional energy incl. solar energy equipment).
- Wipro Limited, Andhra Pradesh (IT SEZ).
- Divi's Laboratories Limited, Andhra Pradesh (Pharma SEZ).
- Wipro Limited, Karnataka - 2 SEZs in Sarjapur and Electronic City (IT SEZ).
- Biocon Limited, Karnataka (Biotech SEZ).
- Serum Bio-Pharma Park, Maharashtra (Pharma SEZ).
- Hyderabad Gems Limited, Hyderabad (Gems and Jewellery SEZ).
- Maharashtra Airport Development Corporation Limited, Maharashtra (Multi product SEZ).
- Reliance Jamnagar Infrastructure Ltd. (Multi Product).
- Suzlon Infrastructure Ltd. (Hi-tech Engineering Products and related services).
- Sachin Surat SEZ

TRADE WITH AFRICAN COUNTRIES

Since independence India has had cordial and friendly trade relations with Africa in general. Trade relations expanded considerably since 1947, particularly after the

transition into 2nd millennium. India's trade with Africa since 2005-06 is given below:

INDIA - AFRICA TRADE

(Value in US \$ millions)

Year	Exports	Imports	Total Trade
2005-06	6,993.53	4,878.56	11,872.09
2006-07	10263.96	14,726.67	24,990.63
2007-08	14,196.09	20,497.65	34,693.74
2008-09	14813.42	24728.31	39541.73
2009-10*	13432.17	25528.87	38961.04

Note : Including Oil in Import figures

* Including Petroleum Product exports from India (provisional)

Total trade (including oil) with Africa during 2009-10 amounted to US \$ 38961.04 million as compared to US\$ 39541.73 million during the year 2008-09 with exports amounting to US \$ 13432.17 million and imports at US \$ 25528.87 million. If oil is factored out, India enjoys a positive trade balance with Africa.

During 2009-10, the total commodity trade (excluding oil) between India and African countries was US \$ 19356.17 million as against US \$ 21604.54 million in 2008-09, thereby registering a negative growth of 10.4 per cent. India's exports to the African countries decreased by 11.25 per cent from US \$ 11109.49 million in 2008-09 to US \$ 9,859.33 million in 2009-10. India's imports from the African countries also decreased by 9.50 per cent from US \$ 10494.05 million in 2008-09 to US \$ 9,496.84 million in 2009-10.

Total trade (including oil) with West African countries was US\$ 12,989.47 million during 2009-10 as compared to US \$14536.45 million during 2008-09, indicating a negative growth of 10.6 per cent. Drugs, pharmaceuticals and fine chemicals, machinery and instruments, manufactures of metals, Transport equipments and Electronic goods were the major items of export. Petroleum crude and products, cashew nuts, Metalifers ores and metal scrap, inorganic chemicals, wood and wood products, and fertilizers crude were the major items of import. Nigeria was the top most trading partner within this region with a trade of US \$ 8696.17 million during 2009-10 as compared to US \$ 10429.61 million during 2008-09, reflecting a negative growth of 16.6 per cent.

Total trade (including oil) with countries in **Southern Africa** was US \$ 13427.08 million during 2009-10 as compared to US \$ 10357.56 million during 2008-09, indicating a growth of 29.6 per cent. Petroleum (Crude and products), drugs, pharmaceuticals and fine chemicals, Transport equipments, machinery and instruments and manufacture of metals were the major items of export. Petroleum (Crude and products), Gold, coal, coke and briquettes, Metalifers ores and metal scrap and inorganic chemicals, were the major items of import. South Africa was the top most trading partner within this region with a trade of US \$ 7656.31 million

during 2009-10 as compared to US \$ 7493.86 million during 2008-09, reflecting a growth of 2.2 per cent.

Total trade (including oil) with countries in **North Africa** was US \$ 8023.93 million during 2009-10 as compared to US \$ 9246.57 million during 2008-09, indicating a negative growth of 13.2 per cent. Petroleum (Crude and products), machinery and instruments, Transport equipments, meat and preparations and cotton yarn, fabrics, made-ups etc. were the major items of export. Petroleum (Crude and products), Fertilizers crude, cotton raw, coal, coke and briquettes and leather were the major items of import. Egypt was the top most trading partner within this region with a trade of US \$ 3095.97 million during 2009-10 as compared to US \$ 3821.19 million during 2008-09, reflecting a negative growth of 19 per cent.

Total trade (including oil) with countries in **East Africa** was U:S \$3900.23 million during 2009-10 as compared to U:S \$ 4863.22 million during 2008-09, indicating a negative growth of 20 per cent. Petroleum (Crude and products), machinery and instruments, drugs, pharmaceuticals and fine chemicals, manufactures of metals and Primary and semi finished iron and steel were the major items of export. Pulses, Cashew nuts, Matalifers ores and metal scrap, cotton raw and Petroleum (Crude and products) were the major items of import. Kenya was the top most trading partner within this region with a trade of US \$1530.16 million during 2009-10 as compared to US \$1444.27 million during 2008-09, reflecting a growth of 6 per cent.

Total trade (including oil) with countries in Central Africa was US \$ 620.34 million during 2009-10 as compared to US\$ 537.93 million during 2008-09, indicating a growth of 15.3 per cent. Drugs, pharmaceuticals and fine chemicals, machinery and instruments, transport equipments, electronic goods and plastic and linoleum products were the major items of export. Petroleum (Crude and products), pulses, Metalifers ores and metal scrap, cotton raw and tea were the major items of import. Uganda was the top most trading partner within this region with a trade of US \$ 220.31 million during 2009-10 as compared to US \$ 237.1 million during 2008-09, reflecting a growth of 7.1 per cent.

PTA WITH SACU

The Southern African Customs Union (SACU), the oldest Custom Union of the world, comprises of South Africa, Lesotho, Swaziland, Botswana, and Namibia. India and SACU commenced negotiations for PTA in October, 2007 and four meetings of the negotiating teams have taken place so far. India and SACU signed a Memorandum of Understanding, an enabling instrument to facilitate negotiations, during the third round of negotiations held in New Delhi on 25-27 November 2008.

CECPA WITH MAURITIUS

A Comprehensive Economic Cooperation and Partnership Agreement (CECPA) aimed at boosting bilateral trade, investment and general economic cooperation between India and Mauritius is being negotiated.

FOCUS AFRICA PROGRAMME

The ‘‘Focus Africa’’ Programme was initially launched with focus on seven countries of Sub-Saharan African (SSA) Region, viz., South Africa, Nigeria, Mauritius, Tanzania, Kenya, Ghana and Ethiopia, With a view to further widen and deepen India’s trade with Africa, the scope of this Programme was further extended to include Angola,

Botswana, Ivory-Coast, Madagascar, Mozambique, Senegal, Seychelles, Uganda, Zambia, Namibia and Zimbabwe, along-with the six countries of North Africa, viz., Egypt, Libya, Tunisia, Sudan, Morocco and Algeria. Under this Programme, the Government extends assistance to exporters and Export Promotion Councils etc. to visit countries in Africa and organize trade fairs and also sponsors African trade delegations to visit India. A number of export promotion activities were conducted by various Export Promotion Councils and Apex Chambers with grant under MDA and MAT Scheme. The Focus Africa Programme is continuing for the seventh year during 2008-09.

BILATERAL COOPERATION

Issues pertaining to trade and economic cooperation between India and African countries are reviewed through Joint Commissions and Joint Trade Committees. Business to Business interactions have also been encouraged between Apex Indian Chambers and their African counterpart Chambers with a view to further enhance trade and investment relations between India and African Countries. High level bilateral meetings and visits by trade and industry delegations are also organized with a view to strengthening trade and economic partnerships between India and African countries.

INDIA-EUROPE TRADE

Europeans countries account for about 20.11 per cent of India's total trade. India's exports to Europe during 2009-10 were US\$ 38.53 billion and imports to Europe during this period were US\$ 55.08 billion. During this year, bilateral trade decreased by 5.77 per cent over 2008-09. While India's export to Europe decreased by 8.44 per cent, India's import from Europe decreased by 3.81 percent. The top five items of India's exports to Europe are Petroleum (Crude and Products), Readymade garments, Transport equipments, Gems and Jewellery and Machinery and Instruments. The top five items of India's imports from Europe are machinery (except electrical and electronics), pearls and precious stones and semi-precious stones, Transport equipments, electronic goods and iron and steel, transport equipments and iron and steel.

Trade and Investment relations with European Union

The European Union (EU) presently consists of 27 countries. These countries are Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, U.K., Bulgaria and Romania.

India and EU enjoy healthy economic relations. These relations have been built on the foundation of (i) India-EU Cooperation Agreement on Partnership and Development which came into effect in August, 1994 and (ii) India-EU Strategic Partnership which was announced in September, 2005. India also has bilateral economic agreements with a number of individual EU countries in the areas of trade, investments and avoidance of double taxation. India has agreements for investments and promotions/protections with 22 countries of Europe, including 17 countries of EU. Similarly, agreements for avoidance of double taxation exist with 26 countries in EU.

India-EU bilateral relations are reviewed at the official level by the India-EC Joint Commission. This had its last meeting on 29th September, 2010. Three Sub-

Commissions on Trade, Economic Cooperation and Development Cooperation and nine Joint Working Groups on agriculture and marine products, textiles, information technology and communications, consular matters, environment, steel, food processing industries, pharmaceuticals and bio-technology and technical barriers to trade (TBT)/sanitary and Phyto sanitary (SPS) issues are functioning and their reports are considered by Joint commission.

MMTC

MMTC Limited is India's largest trading company with an annual business turnover of about US \$ 10 billion. It is the largest exporter of Minerals and Ores from India, leading exporter/importer of Agro Commodities, single largest importer/supplier of Bullion, a major player in the Coal and Hydrocarbons and Non-Ferrous Metals imports by the country and one of the India's largest buyers of Finished Fertilizers and Fertilizer Raw Materials. The Company Commands extensive market coverage in over 65 countries in Asia, Europe, Africa, Oceania and America etc. The domestic network of MMTC in India spreads across an number of offices, warehouses and retail outlets.

MMTC currently holding the No. 1 rank amongst Trading Companies in India, has in 2000-10 further improved upon its already impressive performance by achieving record level top line and bottom line consecutively in the sixth year by registering its highest ever turnover of ₹ 45, 124 crores. This best ever business turnover, since its inception in 1963 includes exports of 3,223 crores, highest ever imports of ₹ 39,969 crores and domestic trade of ₹ 1932 crores. MMTC earned net profit after tax of ₹ 216 crores during 2009-10.

As a strategy to diversify and add value to its trading operations, MMTC had earlier set up Neelachal Ispat Nigam Ltd. (NINL) -an Iron and Steel Plant of 1.1 million tonnes per annum capacity and 0.8 million tonne Coke Ovens and by product unit with captive power plants, jointly with the Government of Orissa at a total capital outlay of nearly ₹ 2000 crores. The construction of Phase II of the project with an estimated cost of ₹ 1855 crores is under progress. During the year 2009-10. NINL achieved a sales turnover of ₹ 1580 crores and generated net profit of ₹ 38 crores.

MMTC had also promoted a wholly owned foreign subsidiary namely, MMTC Transnational Pte. Ltd (MTPL) with an initial share capital of US\$ 1 million under the laws of Singapore in October 1994 as a part of its strategy to enhance its presence in South and South East Asian countries, which hold the prestigious "Global Trader" status awarded to it by International Enterprise, Singapore in 2000. During the year 2009-10. MTPL achieved its second best ever business turnover of US \$ 525 million and second highest profit after tax of US \$ 6.54 million since inception. The net worth of MTPL stood at US \$ 18.03 million as on 31st March 2010.

Besides keeping its position intact in its core areas of activities, MMTC also associates itself in promotion and development of trade related infrastructure. Aiming at diversification and to add value to trading operations, MMTC has taken various strategic initiatives following public private partnership route, which include, in broad terms, setting up of a Commodity Exchange (which has commenced its operation in November, 2009), a Currency Exchange (which has commenced its operation in September, 2010) and putting up a Gold/Silver Medallion manufacturing unit, which would also include a Gold refinery as an integral part. For effective marketing of the finished products from this unit, as well as jewellery from other

sources, MMTC is setting up in partnership with a leading Indian company, a chain of retail stores at various cities in India for medallions, jewellery and its home grown brand of 'SANCHI' silverware. As a measure of investing in mining infrastructure MMTC is promoting a Joint Venture Company for exploration and development of mines for minerals, ferrous and non-ferrous ores, precious metals, diamonds and coal etc. MMTC has also been allotted a coal mine in Jharkhand having estimated reserves of about 800 million MT of both coking and thermal coal.

MMTC is a member of a consortium which has constructed permanent Iron Ore Loading berth at Ennore, which is expected to be commissioned in October 2010. MMTC is also partner in another consortium, which has been awarded the project for construction of a deep draft iron ore berth at Paradip port as well. Moreover, to facilitate promotion of two way trade MMTC took the lead in setting up free trade and warehousing zones at Haldia and Kandia.

MMTC has entered into clean power sector that is environment and eco-friendly by setting up and operating a 15 MW Wind Power farm in Karnataka since 2007.

STATE TRADING CORPORATION (STC)

The State Trading Corporation of India Ltd. (STC) is a premier international trading company engaged in exports, imports and domestic trade for over five decades. The Corporation has played a key role in the Indian economy. It has acted as an arm of the Government of India not only to regulate foreign trade but also for intervention in the domestic market.

STC has a paid up equity of ₹ 60 crore, of which, Government of India holds approximately 91 per cent and the rest 9 per cent is held by mutual funds, financial institutions and public. STC has built a net worth of ₹ 644 crore (as on 31.03.2010) and has contributed a sum of over ₹ 1100 crore till date to the public exchequer by way of payment of dividends and corporate taxes.

The Board of Directors of STC comprises of whole time chairman-cum-Managing Director, five whole-time Directors, two ex-officio Directors from Ministry of Commerce and independent Directors appointed by the Government. STC has thirteen branch offices in India, the major ones being at Mumbai, Kolkata, Chennai, Ahmedabad, Bengaluru and Hyderabad. The total manpower of the corporation (as on 31.03.2010) is 890 including 539 managers. STC has own tank farms, warehouses, godowns at various locations of the country for storage of liquid/dry cargo.

STC has a wholly owned subsidiary, namely, STCL Ltd., which is based at Bengaluru and is engaged in spices trading/auctions.

Traditionally, the Corporation had been undertaking trade in items like rice, wheat, castor oil/seed, tea, jute, goods, spices, sugar, pulses, light engineering goods, construction materials, consumer goods, sports goods, processed foods, marine products, textiles, garments, leatherware, edible, oils, etc. STC has diversified into many new areas such as exports of steel raw materials, iron ore, chemicals, gold jewellery and imports of bullion, hydrocarbons, minerals, metals, fertilisers, petrochemicals, etc. At times, STC also undertakes bulk imports of essential items of mass consumption e.g. wheat, pulses, edible oils, sugar, etc. on behalf of the Government of India to meet domestic shortages. The corporation arranges imports of crucial raw materials as and when needed by the Indian industry. It undertakes import of technical and security equipment on behalf of Forensic Science Laboratories, State Police and Intelligence Departments and Paramilitary Organisations against specific requests.

The Corporation also monitors counter trade/ off-set commitments against bulk purchases made by the Government of India.

On domestic front, the Corporation mainly undertakes sales of hydrocarbons, minerals, metals, petrochemicals, tea, pulses and jute.

Today, STC is known as a trustworthy buyer and supplier in the international markets and is an ideal partner for structuring any trade transaction as per the specific requirement of its clients.

During 2009-10, STC achieved an all time high turnover of over ₹ 21500 crore contributed mainly by high import sales of bullion, hydrocarbons, minerals and metals, petrochemicals, etc. In fact, during the last four years, the turnover has grown by compounded average growth rate of about 32 per cent. The profitability has also risen consistently. During 2009-10, STC undertook a number of initiatives aimed at diversifying into new areas and creation of captive supply base. For the first time, the Corporation undertook export of lubricant oils to Myanmar. It further strengthened its supply base for tea so as to emerge as a larger player in the coming years. Edible oils and pulses were supplied to the State Governments for sale under PDS covering weaker sections of the society. Existing areas of business including ballistics were further strengthened.

In view of the record breaking performances achieved in the recent years, STC has been ranked 2nd among trading companies of the country according to a Survey by Dun and Bradstreet, 2nd in terms of sales to assets ratio among super 100 companies by Business India (Dec. 13, 2009), 14th in terms of net sales among 204 PSUs as per Public Enterprises Survey : 2008-09 brought out by Department of Public Enterprises, 22nd in terms of net sales among top 500 companies by the Financial Express (Feb. 2010) and 25th in terms of net sales among top 1000 companies by Business Standard (Feb. 2010). STC has also won Asia's Best Employer Brand Award 2010 for Talent Management.

In the backdrop of the prevailing global and domestic economic scenario, STC is well poised to capture new opportunities of trade to sustain the higher levels of business and profits witnessed in the recent years.

To generate substantial turnover and profitability, STC will continue to concentrate on arranging import of non-ferrous ores, bullion, pulses, edible oils, petro-chemicals and fertilizers in view of their increasing domestic demand. The Corporation is also identifying new items of exports including value added manufactured products to overseas market. Besides, available infrastructure including edible oil tanks will be upgraded and augmented to facilitate increased business for the Corporation. The Corporation will also closely interact with state governments for supplying bulk commodities required by them.

PEC

PEC Ltd. was incorporated in April, 1971 as a Public Sector Undertaking under Ministry of Commerce and Industry, Government of India. The company is engaged in export of engineering equipment and projects specially from small and medium enterprises, besides export and import of bulk items viz. agro commodities, edible oil, bullion, industrial raw materials, domestic trade, etc.

PEC is one of the pioneering enterprises providing services in the field of export of projects, equipment, capital goods, agricultural commodities, import and domestic

trading of agricultural commodities, industrial raw materials and import of bullion. The scope of PEC's business activity covers not only export and import but also structuring of Special Trading Arrangements, counter trade transactions, third country trading and domestic marketing.

During the year 2009-10, PEC has achieved highest ever sales turnover of ₹ 110259 million, registering an increase of 7 per cent over the last year. The sales turnover includes exports at ₹ 12549 million, imports at 88816 million and domestic sales at ₹ 8894 million. PEC continues to achieve high productivity in terms of sales turnover per employee. PEC earned profit before tax of ₹ 1029 million during the year 2009-10.

PEC received Merit Certificate for excellence in the achievement of MOU for the years 2006-07 and 2007-08. PEC has been rated "Excellent" in the achievement of targets for the year 2008-09. PEC expects to be rated "Excellent" for the year 2009-10 also.

8 Communications and Information Technology

COMMUNICATION and Information Technology in the country is handled by the Ministry of Communication and Information Technology at the Centre. The Ministry contains three departments namely:

- Department of Posts
- Department of Telecommunications and
- Department of Information Technology

The salient features of these departments, main activities and initiatives taken by them in this sector are given here.

POSTS

The establishment of the modern postal system in India can be traced back to the second half of the 18th century. This postal system established by Lord Clive in the year 1766, was further developed by Warren Hastings by establishing the Calcutta G.P.O. under a Postmaster General in the year 1774. In the other Presidencies of Madras and Bombay, the General Post Offices came into existence in 1786 and 1793 respectively. The Act of 1837 first regulated the Post Office on a uniform basis to unite the post office organisation throughout the three Presidencies into one all-India Service. The Post Office Act of 1854 reformed the entire fabric of the Postal system, and the Post Office of India was placed on the present administrative footing one hundred and fifty four years ago on 1 October 1854. The statute presently governing the postal services in the country is the Indian Post Office Act, 1898.

Besides providing postal communication facilities, the post office network has also provided facilities for remittance of funds, banking and insurance services from the latter half of the 19th century.

POSTAL NETWORK

At the time of Independence there were 23,444 post offices throughout the country. Of these 19,184 post offices were in the rural areas and 4,160 in the urban areas. India has the largest Postal Network in the world with 1,55,015 Post Offices (as on 31 March 2009), of which 1,39,144 (89.76 per cent) are in rural areas and 15,871 (10.24 per cent) are in urban areas. Thus, the network has registered nearly seven-fold growth since Independence, with the focus of the expansion primarily in rural areas.

Expansion of the postal network especially in rural areas, has to a great extent been brought about by opening part time Extra Departmental Post Offices, a system unique to the Department of Posts. Under this system, local residents are employed, subject to fulfillment of certain criteria, to man the post office for a period not exceeding five hours and to deliver and convey mails on payment of certain allowance. On an average in India, a post office serves an area of 21.21 sq km, and a population of 7175 people. Post Offices are opened subject to fulfillment of norms regarding population, income and distance stipulated by the Department. There is an element of subsidy for opening post offices in rural areas, which is to the extent of 85 per cent of the cost in

hilly, tribal, desert and inaccessible areas, and 67 per cent of the cost in normal rural areas.

The postal network consists of three categories of post offices, viz, Head Post Offices, Sub-Post Offices and Extra Departmental Branch Post Offices. All categories of Post Offices retail similar postal services, while delivery function is restricted to specified offices. In terms of management control, accounts are consolidated progressively from Branch Post Offices to Sub-Post Offices and finally in Head Post Offices.

The Department has about 2.10 lakh departmental employees and about 2.73 lakh Gramin Dak Sevaks. Their training needs are met through a well-developed training infrastructure.

In addition to Post Offices, basic Postal facilities are also offered through Franchisee Outlets and Panchayat Sanchar Seva Kendras. Franchise Outlets are opened in urban areas where it is not possible to open a regular Post Office. In this scheme, only specified counter services are franchised, whereas transmission and delivery of mails alongwith small savings scheme is not franchised. Panchayat Sanchar Seva Kendras are opened in villages where Post Offices do not exist. The scheme is implemented by Gram Panchayats through an agent appointed by them. As on 31 March 2009 there were 850 Franchisee outlets and 4962 Panchayat Sanchar Seva Kendras functioning in the country.

As part of the 11th Five Year Plan, the Department has undertaken new initiatives to streamline core mail operations and improve the quality of mail related services. These efforts include:

(i) Setting up of Automatic Mail Processing Centres (AMPCs): This scheme seeks to expedite sorting of mail by mechanizing the mail processing capacity in the major metro cities, such as Delhi, Mumbai, Chennai, Kolkata, Bangaluru and Hyderabad. The enhanced capacity of mail offices to handle larger mail volumes in a shorter time span is expected to result in faster processing of mail and increased productivity. During the financial year 2009-10, the Department has placed the orders for procurement of automated mail processing systems at Delhi and Kolkata.

(ii) Induction of Freighter Aircraft: Transmission of mail in the North East region of the country had been a major concern due to lack of reliable modes of transmission for mail carriage and dependence on external agencies for air, road, and rail transmission. To reduce transmission uncertainties, the Department has introduced a dedicated freighter aircraft for carriage of mail in the North East region to ensure the quickest possible transmission mail between the NE region and rest of the country. The aircraft operates on Kolkata-Guwahati-Imphal-Agartala-Kolkata route.

(iii) Setting up of Mail Business Centres (MBCs) : Under this scheme, it is proposed to transform mail offices into MBCs through rationalization of existing mail network, process re-design, induction of technology, and review of the existing sorting, transmission and delivery system. During the year 2009-10, as part of this scheme, the Department has undertaken a Mail Network Optimization Project for restructuring of the existing mail network.

(iv) Induction of REID technology in Mail Processing: The Department of Posts has also planned to introduce RFID technology in mail processing at important centres to put in place an end-to-end tracking for Speed Post mail. The system would also help the Department in identifying delay, idle time, mis-sorting and misrouting of mail bags in the mail handling chain.

(v) Publicity of PIN Code: For faster delivery of mail, it is important that PIN codes are mentioned on the letters by the sender. This helps in faster processing of mail (which is based on PIN Code wise sorting), and in turn, leading to faster delivery to the addressee. In order to increase the usage of PIN Codes, the Department has undertaken publicity campaigns through print and electronic media to popularize the use of PIN Code and sensitize the public on the importance of using PIN Code for faster processing and delivery of their mail.

In addition, the Department has also taken initiatives to create a National Address Database management system and introducing GPS based system for tracking of Mail Vehicles in the North East region.

During the year 2008-09, the Department handled 634 crore pieces of unregistered and registered mail. During this period, the Department also handled 21.14 crores Speed Post articles.

INTERNATIONAL MAILS

India is a member of the Universal Postal Union (UPU) since 1876 and of the Asian Pacific Postal Union (APPU) since 1964. These organizations aim at extending, facilitating and improving postal relations among other countries. India exchanges mail with more than 217 countries by air and surface.

Money can be remitted from selected foreign countries to India by way of money orders. India has money order services with 27 countries. India has two way money order service with Bhutan and Nepal, wherein money orders can be sent to and received from these countries. With the remaining 25 countries, only inward service is available where money orders booked in these countries can be paid in India.

The department has introduced an electronic International Money Order service (Inward) through International Financial System Software developed by Universal Postal Union (UPU) to provide fast, reliable efficient and up-to-date remittance service to the customers. The expansion of this service to more countries is under consideration.

In order to ensure higher standards of quality performance in transmission of delivery of international mail, a scheme viz. Up-gradation of International Mail Processing Facilities at the Office of Exchange has been implemented under 11th five-year plan.

International EMS, which started in 1986 with 5 countries, has now been extended to 98 countries. With a view to facilitate export and import to and from foreign destinations, principal foreign offices of exchanges have been set up at Mumbai, Kolkata, Chennai and Delhi. In addition, 6 sub-foreign post offices have been established at Ahmedabad, Bangalore, Jaipur, Cochin, Srinagar and Noida for both import and export. Export Extension Windows have also been made operative at Varanasi, Kanpur, Surat, Ludhiana, Moradabad and Guwahati to cater to the needs of the exporters/touriest in these area.

TECHNOLOGY INDUCTION

India Post is seeking a paradigm shift to become a technology enabled organization in order to provide enhanced customer and employee satisfaction and thereby to increase its revenue. The key initiatives undertaken during 2009-10 are given below:

- a) The existing software development facility at PTC, Mysore was upgraded by establishing a full-fledged Center for Excellence in Postal Technology (CEPT) at Mysore under independent charge of a senior officer. The hardware in the CEPT has been upgraded to enable it to cater to the needs of Post offices across the

country. CEPT has developed and is managing India Post website and the web based complaint management system of the Department. Presently, software such as Meghdoot, Speednet, e-payment, e-MO, Accounts MIS, PTCINFO website containing general information were developed and hosted at datacenter in CEPT. Further, web sites of other units like Kochi, Mumbai etc. are also hosted on the CEPT data centre.

b) Computerisation & Networking of Post offices:

- i) Under the plan project of computerisation and networking of Post offices Department of Posts has supplied computer hardware and peripherals to 12,604 Post offices up to 31 March 2010. Under this project Servers, Desktops, peripherals etc. and power backup equipment like UPS & Generators have been supplied to the Post offices.
- ii) Under 11th Plan scheme upgraded computer hardware viz. Servers, Desktops, peripherals etc. and power backup equipment like UPS & Generators have been supplied to 1939 Post offices.
- iii) Networking of 1305 locations have been connected under WAN (wide area network). All Head Post offices, Administrative Offices, Major Speed Post Centers and Accounts Offices have been connected under WAN.
- iv) Under Project Arrow Phase-I & II, in 500 Post offices new Servers, Desktops, peripherals etc. and power backup equipment like UPS & Generators have been supplied.

- c) The department plans to transform its existing physical network of more than 1,55,000 Post Offices into a state-of-the-art electronic network with a view to improving its processes leading to service delivery; enabling the people delivering the services to perform better; using technology to alter the way services are delivered and expanding the basket of its services. To achieve this, Project Management Unit (PMU) was set up to conceptualize, Coordinate and manage the Second Phase of XI Plan Project. A Project Consultant was appointed to advise and assist the Department in designing and executing the project.

PROJECT ARROW

The Department of Posts has launched “Project Arrow” to revitalize its core operations and to provide new technology enabled services to the common man. The objective of the scheme is to give a new outlook to post offices by modernizing exterior and interior designs of the Post Office, upgrading infrastructure and enhancing core operation including IT enabled services and processes. So far this has been successfully implemented in 1000 post offices in country. As the project has been widely accepted and appreciated by the staff as well as the customers, it is being extended to another 510 post offices across the country.

BUSINESS DEVELOPMENT ACTIVITIES

Speed Post :Speed Post service was introduced on 1 August 1986. Under this service, letters, documents and parcels are delivered within a given time frame failing which full refund of postage is given to the customer. The Speed Post Network comprises 315 National and 986 State Speed Post Centres. This service is also available internationally to 97 countries.

An Internet based track and trace service speed net, was launched on 3rd January 2002. Apart from providing tracking facility for Speed Post articles to the customers,

it also provides information to the management about the quality of service, business performance, marketing customer service etc. It is now operational from all 290 National Speed Post Centres and 986 State Speed Post Centres.

Business Post : The Department launched Business Post with effect from 1 January 1997 in order to meet specific needs of bulk customers for pre-mailing activities. Accordingly, it provides value addition to all traditional services offered by the Post in the form of collection, insertion, addressing, sealing, franking etc. Recently, printing of bills, financial statements, mailers etc. have also been included among the pre-mailing services extended to customers under Business Post.

Bill Mail Service : Bill Mail Service was introduced w.e.f. 15 September, 2003 to provide a cost effective solution for mailing of periodic communication in the nature of financial statement, bills, monthly account bills or other items of similar nature, which may be posted by service providers to their customers.

A National Bill Mail Service was launched in February 2005 that allows Bill Mail Service items meant for outstation destinations also to be bundled in package, which can be sent to destination cities as Speed Post. Express Parcel Post etc. article, on payment by the sender. The individual bills in the package are charged only at Local Bill Mail Service rates.

Express Parcel Post : The Express Parcel Post seeks to provide a reliable and time bound parcel service through surface transport. It provides door-to-door delivery and VPP service upto ₹ 50,000 to cater to corporate users and business establishments on contractual basis. Express Parcel Post can be booked in 290 stations in the country, where National Speed Post Centres exist.

Logistics Post : A Logistics Post service was introduced by the Department in 2004-05. This service has already started in many Postal Circles. Logistics Post is designed to carry consignments from point to point without any maximum limit. Value added services like pick-up, delivery, track and trace are also being provided under Logistics Post.

Media Post : The Department offers a unique media to help the corporate and government organisations reach potential customers through Media Post. Under this facility, customers can use the following options for their branding exercise: (a) Advertisement on Post cards, Inland Letter Cards, Aerogram and other Postal Stationery. (b) Space sponsorship options on letter-boxes.

Direct Post : Many Countries have identified Direct Marketing/Advertising mail as an important component of business mail with high potential for growth. With high economic growth, Direct Mail volumes are expected to grow significantly in India also. A service called Direct Post was introduced w.e.f. 2 June 2005 to deal with delivery of un-addressed mail to the doorsteps of the target population. A new Direct Post value addition has also been introduced from 18 April 2006, allowing advertising mail to be combined with transaction mail like bills etc.

e-Post : e-post service, launched on 30 January 2004, utilises the last mile advantage provided by the Department to enable people to send and receive message or scanned images through e-mail in all post offices in the country. People who would not normally have access to internet are able to send and receive e-mail messages without possessing an e-mail ID, thereby bridging the digital divide. To make it useful for business also, a corporate version of e-post was also launched on 18 October 2005, which allows simultaneous sending of e-post to a maximum of 9999 addresses.

e-Bill Posts: A new service, called e-bill Post has been launched by the Department as one of the technology enabled services for the customers. Presently this service is available at Bangaluru and Kolkata and is likely to start in other cities very soon. This has been designed keeping in view the requirement of the clients. The service is useful for payment of electricity, telephone, mobile, water and other kind of bills/dues at the Post Office counters by the users. The user can go to a nearby Post Office and pay their utility bills.

PHILATELY

Indian postage stamps provide a kaleidoscopic glimpse of our historical and natural heritage and the rich diversity of our culture and traditions. Covering a wide range of themes, the stamps also commemorate important national and international events, the contributions of renowned personalities and institutions and our achievements in various fields like sports, arts, science and technology etc. These stamps are very popular.

The philatelic items like commemorative postage stamps, miniature sheets, first day covers, information brochures, post cards and maxim cards etc. are available through 68 Philatelic Bureaux and 881 Philatelic Counters across the country.

India Post is organizing an International Philatelic Exhibition, Indipex 2011 in ITPO, New Delhi Feb next year. Postal Administrations and renowned philatelists from all over the world are expected to participate in the event which will be an excellent opportunity for the citizens, especially children to see rare and valuable stamps and other philatelic material.

FINANCIAL SERVICES

POST OFFICE SAVINGS BANK

The Post Office Savings Bank (POSB) operates the Small Savings Schemes of Government of India, Ministry of Finance on an agency basis. It operates more than 170 million savings Accounts. In terms of its existing mandate, the POSB is fully geared to meet the banking requirements of small investors, particularly those who cannot readily access the commercial banks. The POSB operates out of more than 1.54 lakh Post Offices spread across the country. The rural network of POSB itself extends to more than 1.38 lakh branches.

At present, the schemes being operated through POSB are as follows -

- (i) Savings Account Scheme
- (ii) Recurring Deposit Scheme
- (iii) Time Deposit Scheme (1 Year, 2 Year, 3 Years & 5 Years)
- (iv) Monthly Income Scheme
- (v) Public Provident Fund Scheme
- (vi) Kisan Vikas Patra Scheme
- (vii) National Savings Certificate (VIII Issue)
- (viii) Senior Citizen's Savings Scheme - 2004

MONEY ORDER

A "Money Order" is an order issued by the Post Office for the payment of a sum of money through the agency of the Post Office. The amount for which a single money order may be issued must not exceed ₹ 5000/-. This service is available in more than

1.5 lakh post offices covering every nook and corner of the country. This allows customers to remit their money anywhere in India without any haste and with ease and they can receive money at their doorstep.

OTHER FINANCIAL SERVICES

(i) International Money Transfer Service

This service, operated in association with a multinational company - Western Union Financial Services International, provides the customers the facility of receiving remittances from 205 countries and territories on a real time basis. The service is currently available from 6014 post offices. The service has provided the common man who has no bank account or access to Internet, a viable channel for receiving remittances from their relatives and family members abroad. The Department received the award in the years 2004 and 2005 for "Highest Growth in Transactions."

Department introduced MO Videsh service in October, 2009 for inward and outward international money remittances. The service is currently available in more than 800 Head Post offices.

(ii) Instant Money Order (IMO)

Instant Money Order (IMO) is an online domestic money transmission service intended for a market clientele requiring instant money remittance. This service enables the customer to receive money in minutes from any of the post offices providing iMO service. The service was introduced on 20 January 2006. Under this service, a person can send amount from ₹ 1000/- up to ₹ 50,000/- in one transaction. Money will be disbursed to the payee at any of the iMO Post Offices in India other than the office of booking on presentation of 16 digit iMO number and photo identity proof. Currently, the service is being offered in more than 1000 post offices across the country. This service is in the process of further expansion.

(iv) Retailing of Mutual Funds and Bonds

The Department is retailing select mutual funds products of UTI Mutual Funds and pension products of ICICI Prudential through more than 800 identified post offices. While extending the reach of the capital market of the country the service also provides the common man easy access to market based investment options.

(v) Accidental Death Insurance Cover to POSB account holders

Department of Posts in a tie up with Oriental Insurance Company Limited (OIC) is providing Accidental Death Insurance for SB/MIS/SCSS account holders on request basis. On 20 January 2006 this service was launched as an add on product to the products already provided by OIC for sale from Post office. It is a step in the direction of providing value addition to Post Office Savings Bank customers.

This scheme provides Accidental Death Insurance cover for one year of ₹ one lakh at a low premium of ₹15/- for the entire year. It is very attractive to Post Office Savings Bank customers especially in rural and remote areas, as most of them do not have any risk cover whatsoever.

(vi) Retailing Pension products of ICICI prudential life Insurance through Post Offices

The Department of Post has signed an Agreement on 17 September 2008 with the ICICI Prudential Life Insurance Company Ltd. to retail their Pension Products through select Post Offices on Referral Model. ICICI Prudential pays fee to Department of Posts at the prescribed percentage of the premium paid by the customers to whom the policies were issued based on the reference provided by India Post.

(vii) E-Money Order

The Department of Posts has launched eMO on 10 October 2008. Electronic Money Order is a system that facilitates remittance of MOs electronically, for which post offices should have connectivity by WAN/Broadband. These connected HOs and SOs will transmit eMOs for other connected HOs and SOs (including SOs and BOs in account with them). The advantages over traditional system would be reduced transmission time at no extra cost to the customer. Besides, availability of MIS in the central database ensuring more efficient and improved quality of service.

Under the scheme the tariff structure would be same as that for ordinary MO with the following features:

- Messages in standard codes
- Tracking facility through 18 digits PNR No.
- Bulk booking of eMOs on the basis of lists provided by the bulk remitter; uploading data available in softcopy.
- Payment of bulk eMOs through consolidated list
- MIS for sender and payee in the case of bulk booking/payment

(viii) ECS scheme

The Electronic Clearing Service is being offered in the Department of Posts at all the 15 locations of RBI and 21 locations of State Bank of India in connection with payment of monthly interest under "Monthly Income Scheme" (MIS). This scheme obviates the need for issuing and handling paper instruments and thereby facilitates improved customer service by the Department of Posts.

RURAL BUSINESS**Disbursement of NREGS Wages**

National Rural Employment Guarantee Act came into force on 7 September 2005 and its implementation was notified in phased manner. The Act is now effective in the entire rural areas of the Country covering 618 districts. The Act has been renamed as 'The Mahatma Gandhi National Rural Employment Guarantee Act' (MGNREGA) vide Gazette Notification dated 31 December 2009. The objective of the Act is to provide for the enhancement of livelihood security of the households in rural areas of the Country by providing at least one hundred days of guaranteed wage employment in every financial year to every household whose adult members volunteer to do unskilled manual work.

As per para 31 of schedule - 11 of NREG Act, 2005, payment of NREGS wages shall be made through the individual or joint saving accounts of the NREGS workers opened in banks or in post offices. The scheme of disbursement of NREGS wages through post offices accounts is operational in 19 postal circles of the Country except (Delhi, J&K and Tamil Nadu Circles). Till 31 March 2010, 4.26 crores NREGS accounts have been opened in post officers and wages amounting to 7900 crores have been disbursed to NREGS beneficiaries through approximately 95,000 post offices across the country.

Post Offices have been selected for payment of wages under NREGS due to following reasons :

- i) Largest network in the country. (A total of 1,55,015 post offices, out of which 1,39,144 are in rural areas).

- ii) Reliability and trustworthiness.
- iii) Payment of wages in fair and transparent manner within the prescribed time limit.
- iv) Ensuring financial inclusion of NREGS workers by operation of their accounts in the post offices in un-banked and under banked areas.
- v) To plug possible leakages in wage payment.

Main features related to payment of wages through Post Offices under NREGS are as follows :-

- i) Payment to be made through Saving Bank accounts of Post Offices (zero balance workers wage account).
- ii) No service charge to be claimed from the beneficiaries for opening of accounts/ making withdrawals.
- iii) Disbursement of wages within the prescribed time frame.
- iv) Provision for advance deposit of one month's wage payment in the Head Post Office of the District Headquarter.
- v) Coordination meeting between Deptt. and State Government authorities.

POSTAL LIFE INSURANCE

Postal Life Insurance (PLI) was introduced in 1884 as a welfare measure for Postal employees. Over the years, it was extended to the employees of Central/State Government. Public Sector Undertakings. Universities. Government-aided institutes, nationalized banks, financial institutions and Gramin Dak Sevaks of the Postal Department and Defence and Paramilitary Personal.

PLI offers seven insurance schemes, namely, (1) Suraksha (Whole Life Assurance); (2) Suvidha (Convertible Whole Life Assurance); (3) Santosh (Endowment Assurance); (4) Sumangal (Anticipated Endowment Assurance); (5) Yugal Suraksha (Joint Life Endowment Assurance for couple); (6) Children Policy; (7) Handicapped Policy. The total numbers of active policies stood were 1,35,86,000 as on 31 March 2010 and total corpus as on 31 March 2010 was ₹ 4793.23 crores approximately.

CUSTOMER CARE

Since 1948, the Department of Posts has a well established system of redressal of Public Grievance. Presently 3295 Computerized Customer Care Centres (CCCs) have been established at the District Headquarters/Divisional Headquarters across the country for online exchange of information amongst all the units for speedy redressal of grievance. This network covers all Head Post Offices in the country to provide easy and speedy access to information and help, apart from the redressal of grievance. Each Post Office works as receiving point for complaints, hence, the system is readily accessible to the customers. Since 2001, the Department has also introduced the facility for customers to register their complaints online at its website www.indiapostgov.in. Further, during 2003, a web-based system had been developed to interconnect the Customer Care Centres to ensure speedy settlement of grievances.

The Department has implemented Citizen's Charter in all Head Post Offices, other large Sub Post Offices and the post offices selected for implementation of Project Arrow. The Charter is also implemented in other Sub Post Offices in mission mode. An updated Citizen's Charter is available on www.indiapost.gov.in. It contains declaration of the Department of Posts on the vision, mission, organization, purpose

of Citizen's Character, postal services and facilities for the customers, postal products and services, delivery standards, customer's expectations, complaint settlement mechanism, liability of the organization and administrative set up. The Department has also taken proactive steps to reaching out to its customer's for their feedback through personal visits, telephone calls and questionnaires. A system of *Dal Adalats* and Post Forum is also established for on the spot settlement of grievances and for participative involvement of the customers for feed back.

India Post has obtained on 11 April 2008 IS 15700:2005 Certification for implementing "Sevottam - a service delivery excellence model" for its retail outlet at New Delhi GPO. India post has the honour of being the pioneer Government Department to qualify the standards and obtain certification.

In addition to the implementation of RTI Act, 2005 within the Department, India Post is also providing a service to the general public under which the RTI application meant for certain specific central public authorities of other Central Government Ministries/Departments and Organizations can be submitted to the designated CAPIOs at District/sub-district level post offices. The applications so received are promptly forwarded by the CAPIO to the concerned designated nodal officer of public authorities under intimation to the applicant. The CAPIO module developed by NIC for use of the department has been made functional at more than 4000 post offices. The Post Offices selected under Project Arrow are being authorized to act as Central Assistant Public Information Officers (CAPIOs). Currently, Department of Posts has authorized 778 officers all over the country to act as Central Public Information Officers. During the year 2009-10, Department of Posts handled 38522 requests within the Department and 9537 requests on behalf of other Central Government Ministries/Departments.

TELECOMMUNICATIONS

The telecom services have been recognized the world-over as an important tool for socio-economic development of a nation. Telecommunications is one of the prime support services needed for rapid growth and modernization of various sectors of the economy. It has become especially important in recent years because of enormous growth of information technology and its significant potential for the impact on the rest of the economy. The Telecom Sector, which has the multiplier effect on the economy, has a vital role to play in economy by way of contributing to the increased efficiency. The available studies suggest that income of business entities and households increases by the use of telecom services. Thus, it contributes to the growth in GDP. The Government of India recognizes that provision of world class telecommunications infrastructure and information is key to rapid economic and social development of the country.

The Telecommunication services were introduced in India soon after the invention of telegraphy and telephone. The first Telegraph line between Kolkata and Diamond Harbour was opened for traffic in 1851. By March 1884, telegraph messages could be sent from Agra to Kolkata. By 1900, telegraph and telephone had started serving Indian Railways. As in the case of telegraph, telephone service was also introduced in Kolkata in 1881-82, barely six years after the invention of telephone. The first automatic exchange was commissioned at Shimla in 1913-14 with a capacity of 700 lines.

The telecommunication services have improved significantly since independence with the sector witnessing series of reform measures that included,

announcement of National Telecom Policy in 1994 that defined certain important objectives, including availability of telephone on demand, provision of world class services at reasonable prices, ensuring India's emergence as major manufacturing/export base telecom equipment and universal availability of basic telecom services to all villages. Telecom Regulatory Authority of India (TRAI), the independent regulator was established in 1997 and New Telecom Policy was announced in 1999, which further laid stress on providing an enabling framework for the development of this sector and to facilitate India's vision of becoming an IT superpower and develop a world class telecom infrastructure in the country.

Since then, Indian telecom sector has come a long way in achieving its dream of providing affordable and effective communication facilities to its citizens. As a result common man today has access to this most needed facility. Larger efforts are continuously being made to provide universal service to all uncovered areas including rural areas. The other thrust areas include, building a modern and efficient telecommunications infrastructure, transforming telecommunications sector to a greater competitive environment with equal opportunities and level playing field for all players, strengthening research and development efforts in the country, achieving efficiency and transparency in spectrum management and enabling Indian telecom companies to become truly global players.

The reform measures coupled with the proactive policies of the Department of Telecommunications have resulted in an unprecedented growth of the telecom sector. Today, the Indian telecommunications network with about 562.21 million telephone connections as on 31 December 2009 is the second largest in the world. With 525.15 millions as on 31 December 2009, wireless phones, India has the 2nd largest wireless network in the world. India has emerged as a major base for the telecom industry worldwide and it is the endeavor of the Government to facilitate further growth of this vital industry as it is not just the growth of a sector but it has 'multiplier effect' on the entire economy.

The structure and composition of telecom growth has undergone a substantial change in terms of mobile versus fixed phones and public-private participation. The growth of wireless services has been phenomenal with wireless subscribers growing at a compound annual growth rate (CAGR) of 60 per cent per annum since April 2004 upto 31 March 2009. Today, the wireless subscribers are not only much more than the wireline subscribers in the country, but also increasing at a much faster pace. The share of wireless phones has increased from 5.26 per cent in 1999 to 93.41 per cent in December 2009. Improved affordability of wireless phone has made universal access objective more feasible.

The liberalization efforts of the Government are evident in the growing share of private sector in total telephone connections, which has increased to 82.33 per cent in December 2009 from a meager 5 per cent in 1999.

Promotion of rural telephony and accessibility of telephones to remote areas is an important thrust area of the Department. It is well recognized that a well spread out provision of telecom services in rural areas enhances the ability of people to participate in the market economy which, in turn, improves their productivity and contributes to their earnings.

As on December, 2009, there are 174.58 million phones in rural areas with a teledensity of 21.19 at the end 6 December, 2009 and the strategy for network expansion in rural areas mainly involves provision of phones in the viable areas through market

mechanisms and through Universal Service Obligation Fund (USOF) in the non-viable areas. While Village Public Telephone (VPIs) and Rural Community Phones (RCPs) will enable public access, a scheme of Rural Community Phones (RCPs) has been launched under USOF to create infrastructure in rural and remote areas. The focus of the stakeholders, is now shifting to untapped rural areas which will provide engine for the second phase of the growth in Indian telecom. Rural teledensity target is upgraded to 40 by 2010.

Recognizing the potential of Broadband service in the growth of GDP and creation of an enabling environment for promoting knowledge based society, the Broadband policy announced in October 2004 has been proposed in the Eleventh Plan targets to provide the broadband for all secondary and higher secondary schools, all Public Health Care Centers and Gram Panchayats.

As on December, 2009 there are 7,98 million broadband subscribers, which is a substantial increase from 0.18 million as on March 31, 2005.

Foreign Direct Investment is one of the important sources to meet the requirement of huge funds for rapid network. The liberalisation in financial sector has beneficial results as that in telecom sector. Liberalisation with allowing entry to the private firms has resulted in unprecedented growth in telecom sector. Allowing greater participation of foreign investor has helped in growth of the sector. Today, telecom is the third major sector attracting FDI inflows after services and computer software sector. At present 74 per cent to 100 per cent FDI is permitted for various telecom services. This investment has helped telecom sector to grow. The total FDI equity inflows in telecom sector have been US\$ 2223 million during April-November 2009-10.

NEW HORIZONS FOR FUTURE GROWTH

The explosive growth of the telecom industry in India is being followed by the urge to move towards better technology and the next level of service delivery. While the last 5 years have been transformational for Indian telecom industry, the next few years look even more exciting. One of the key frontiers which would make journey in coming years exciting is the launch of 3G technology. The government has recently announced guidelines for penetration of 3G telecom services. This will provide a good opportunity for existing operators and also for foreign players to make an entry into the Indian market and bring in new technology and innovations.

MNP allows any subscriber to change his service provider without changing his mobile phone number. With the announcement of guidelines for MNP, telecom service providers will be forced to improve quality of their service to avoid losing subscribers. This can be seen as maturing element of the Indian telecom industry and a natural step for the industry to go forward.

The mobile value added services include, text of SMS, menu based services, downloading of music or ringtones, mobileTV, videos, streaming, sophisticated m-commerce applications etc. Prior to 2008, a majority of VAS revenues were attributable to SMSs. However, recent trends indicate that this mix is evolving. With greater penetration of new services, availability of relatively inexpensive feature rich handsets and consumer education, VAS other than SMS is gaining importance. It is further expected that over the next few years, non-SMS VAS would become a dominant contributor to VAS revenue.

Indian telecom industry manufactures a complete range of telecom equipment using state-of-the-art technology. Considering the growth of telecom, there are excellent opportunities for domestic and foreign investors in manufacturing sector. The last five years saw many renowned telecom companies setting up their manufacturing base in India. The production of telecom equipments in value terms has increased from ₹ 412700 million (2007-08) to ₹ 488000 million during 2008-09 and expected to increase to ₹ 575840 million during 2009-10. The growth of telecom manufacturing industry is largely attributed to the rapidly growing telecom sector. India has potential to emerge as a global hub for telecom manufacturing. There are favorable factors such as policy moves taken by the Government, incentive offered, large talent pool in R&D and low labour cost which can provide an impetus to the industry.

TELECOM COMMISSION

The Telecom Commission was set up by the Government of India in 1989 with administrative and financial powers of the Government of India to deal with various aspects of Telecommunications. The Commission consists of a Chairman and four full time members who are ex-officio secretaries to the Government of India in the Department of Telecommunications, besides there are four part-time members who are the Secretaries to the Government of India of the concerned Departments.

The major functions of the Telecom Commission include policy formulation, review of performance, licensing, wireless spectrum management, administrative monitoring of PSUs, research and development, standardization/validation of equipment and International Relations.

Role of Department of Telecommunications

The Department of Telecommunications (DoT) is responsible for policy formulation, performance review, monitoring, international cooperation, Research & Development and grant of licences to operators for providing basic and value added services in various cities and telecom circles as per approved policy of the Government. The Department also allocates frequency and manages radio communications in close coordination with the International bodies. It is also responsible for enforcing wireless regulatory measures and monitoring the wireless transmission of all users in the country. A brief description of various services of Department of Telecommunications is given below:

MAJOR POLICY INITIATIVES

Given the central aim of NTP 99 to ensure rapid expansion of tele-density and the objective to transform in a time-bound manner, the telecommunications sector to greater competitive environment in both urban and rural areas providing equal opportunities and level playing field for all players, the Department has taken various Policy Initiatives, as below, which have helped the growth of the Telecom sector, increased competition to benefit the customers to ensure affordable & quality service.

- Decided that there should be no cap on the number of access provider in any service area. 122 new UAS licenes were granted in year 2008 to 17 companies in 22 service areas of the country.
- Permission of use of dual technology spectrum under the same UAS/CMTS licence was granted to 8 companies including BSNL & MTNL. BSNL & MTNL were exempted from the prescribed fee for such usages.
- On 11th July 2008, provision of mobile service within 500 meters of international border within Indian Territory has been permitted.

- Keeping in view the interest of consumers, the Department has decided to introduce Mobile Number Portability (MNP). This will allow subscribers to retain their existing telephone number while switching over from one service provider to another or from one technology to another of the same service provider. This would make the telecom market truly competitive.

GRANT OF LICENSES

Unified Access Services

- There were 241 Unified Access Service (UAS), 2 Basic Service and 38 Cellular Mobile service (CMTS) Licences as on December 31, 2009.
- Permission for usage of dual technology spectrum (both CDMA and GSM) under the same CMTS/UAS Licence has been granted to 8 companies as on December 31 2009.

MOBILE NUMBER PORTABILITY (MNP)

Department of Telecom is in the process of introducing Mobile Number Portability (MNP) in India which will allow subscribers to retain their existing telephone number when they switch from one service provider to another or from one technology to another of the same service provider. For the purpose of grant of Licences for MNP service in India, the whole country is divided into 2 MNP zones consisting of 11 service areas each and one licence for MNP service in each MNP zone has been awarded in April 2009 based on tendering process. It is expected that MNP Service shall be available by end of March, 2010.

MOBILE VIRTUAL NETWORK OPERATOR (MVNO)

The Government has accepted the Recommendations of Telecom Regulatory Authority of India (TRAI) dated 6th August, 2008 for introduction of Mobile Virtual Network Operators (mVNOs) Licences in India. The detailed guidelines for grant of MVNO Licence shall be issued by the Department of Telecom shortly.

NATIONAL INTEGRATED DIRECTORY SERVICE (NIDQS)

The Government has accepted the Recommendations of TRAI dated 19th June 2008 regarding introduction of National Integrated Directory Service (NIDQS) Licences in the country. The detailed guidelines for award of NIDQS Licences through open tender shall be issued by DOT shortly.

CARRIER SERVICES

Licensing for National Long Distance (NLD) and International Long Distance (ILD) Service

- After announcing opening up of ILDS and NLDS for free competition, Government has so far issued 24 ILDS licenses and 29 NLDS licenses (including BSNL) as on December 31 2009. The networth and paid up capital requirement for obtaining NLD and ILD licence by the applicant company is ₹ 2.5 crore each.
- The annual license fee for NLD/ILD has been reduced to 6 per cent (including USO contribution) of Adjusted Gross Revenue w.e.f. January 1, 2006.
- There is no mandatory roll out obligation for NLD operators, For ILD operators the roll out obligation is the establishment of at least one ILD gateway within a period of three years.

Registration Certificate of Infrastructure Provider Category-I (IP-I)

- Under IP-I registration, Company can provide Dark Fibre, Right of way, duct space, tower etc. to licensed telecom service providers. 288 companies have been registered as Infrastructure Provider Category-I as on :December 31 2009.

Voice Mail/Audiotex/Unified Messaging Service

- New Policy for Voice Mail/Audiotex Service in terms of NTP-99 was announced in July 2001 by incorporating a new service, namely, Unified Messaging Service (UMS). UMS is a system by which voice mail, fax and e-mails (all the three) can be received by one mailbox using telephone instrument, fax machine, mobile phone, Internet browser etc.
- There are 20 licences in 7 cities owned by 12 companies as on December 31, 2009 for providing Voice Mail/Audiotex/Unified Messaging Service.
- There is neither entry fee nor licence fee.

Public Mobile Radio Trunk Service Licence

- Policy for Public Mobile Radio Trunk Service (PMRTS) in terms of NTP-99 was announced on November 1, 2001. The new PMRTS licenses shall be granted on non-exclusive “first come first service” basis.
- Presently, there are 55 licences in 4 metros and 16 circles owned by 15 companies for providing Public Mobile Radio Trunking Service.

GMPCS Service Licence

- Policy for grant of licence for Global Mobile Personal Communication by Satellite Service (GMPCS) in terms of NTP-99 was announced on November 2, 2001. As on date, there is no licence for providing GMPCS service in India. One Letter of Intent (LoI) has been issued for GMPCS license to M/s Noida Software Technology Park Limited.

Manufacturing of Telecom Equipment

India has fast emerged as a manufacturing hub as multinational companies look for long term alternatives. As a result of Government policy, progress has been achieved in the manufacturing of telecom equipment in the country. There is a significant telecom equipment manufacturing base in the country and there has been steady growth of the manufacturing sector during the past few years. In the last 5 years, the country's contribution in mobile devices has been increased from 0 per cent to 6 per cent of the global device production. Several Indian companies in the telecom and electronics industry are creating global scale.

Rising demand for a wide range of telecom equipment, particularly in the area of mobile telecommunication, has provided excellent opportunities to domestic and foreign investors in the manufacturing sector. The last two years saw many renowned telecom companies setting up their manufacturing base in India. Nokia and Nokia Siemens Networks have set up their manufacturing plant in Chennai. Ericsson has set up GSM Radio Base Station Manufacturing Facility in Jaipur. Motorola, Foxcom (OEM) has set up large manufacturing plants in Chennai. Elcoteq has set up handset manufacturing facilities in Bangaluru. LG Electronics has set up plant of manufacturing GSM mobile phones near Pune. Ericsson has launched their R&D Centre in Chennai, Flextorics has set up an SEZ in Chennai. A large number of companies like Alcatel, Cisco have shown interest in setting up their R&D centers in

India. With above initiatives, India is expected to be a manufacturing hub for the telecom equipment.

Telecom Centers of Excellence (TCOE)

The increased use of new technologies, the move towards corporatisation, competition and the separation of regulatory functions from operational services require advanced level policy, regulatory, managerial and technological expertise. In order to develop and strengthen the capability to generate this expertise, Telecom Centres of Excellence (TCOE) have been established in Public Private Partnership (PPP) mode. The seven TCOEs at the premier academic institutes at IITs, IIM Ahmedabad & Indian Institute of Science, Bangalore supported by a major telecom operator have centers have identified important projects in association with the industry and are working to generate a skilled talent pool, cutting edge research, customer centric regulatory framework and innovative business models for rural India with the ultimate vision to extend the education and economic benefits to the poorest of the poor through telecommunications. So far 70 R&D projects at a cost of about ₹ 16 crore have been taken up in the areas of energy efficient devices & low backhaul for rural areas, network security, voice mail banking etc. TCOE India has been accepted by International Telecommunication Union as a valuator for its international mobile telephony cards data proposal for 4G network.

India Telecom 2009

The Department of Telecommunications organized an exhibition and conference “India Telecom 2009” in December 2009 at New Delhi with the objective of promoting and showcasing the capabilities & opportunities in Indian Telecom Sector.

The conference brought the Government, policy makers, potential investors, operators, manufactures, infrastructure providers, content providers, academia and non-governmental organization together at a common platform to discuss how telecommunications can lead to an “all inclusive growth” of the Indian economy in terms of GDP, growth, employment and revenues, among others. There was also a Special session on Telecom for Inclusive Growth with address by Dr. APJ Abdul Kalam, Former-President of India. The exhibition held during the event at Pragati Maidan was also a huge success with more than 200 participants from 28 countries. During the event, there was a CEOs Roundtable with Hon’ble Minister of Communications & IT. The focus of the Roundtable was to have decision makers together at one platform to have concrete discussions on taking the Indian Telecom Sector to the next level and to share Governments vision for the growth of telecom sector particularly in rural areas. The Hon’ble Prime Minister of India addressed the participants of the event during the closing ceremony of the event held at Vigyan Bhawan.

WIRELESS PLANNING AND COORDINATION

The Wireless Planning and Coordination Wing of the Department of Telecommunications, deals with the spectrum management, wireless licensing, frequency assignments, international coordination for spectrum management and administration of India Telegraph Act 1885. (ITA, 1885), for radiocommunication systems and Indian Wireless Telegraphy Act 1933, (IWTA, 1933)

Following Notifications under sub-section (54) of Section 7 of the Indian Telegraph Act. 1885 regarding amendment in Experimental service and Demonstration license were published through Gazette notifications is 2009 i.e.

- The Indian Wireless Telegraphy (Experimental Service) (Amendment) Rules, 2009 were published in Notification No. G.S.:R. 324(E) in Gazette of India dated the 15 May 2009.
- The Indian Wireless Telegraphy (Demonstration License) (Amendment) Rules, 2009 were published in Notification No. G.S.R. 324(E) in Gazette of India dated the 15 May 2009.

The “Core Group” formed by National Disaster Management Authority (NDMA), New Delhi, convened various meetings for preparation of Guidelines on National Disaster Communication Network (NDCN) within the country wherein WPC Wing made significant contribution. NDMA were informed during various Core Group meetings that the current National Frequency Allocation Plan-2008 (NFAP-2008) document, effective from 1 April 2009, has been developed within the framework of ITU taking into account spectrum requirement of Government as well as private sectors in the fast changing scenario with a view to meeting requirements of new emerging and existing technologies and taking into account the decisions/recommendations of the World Radiocommunication Conferences 2003 & 2007 (WRC-2003 & 2007) of International Telecommunication Union (ITU), etc.

As per NFAP-2008, which is available on WPC Wing’s website viz. www.wpc.dotgov.in suitable provisions for public protection and disaster relief (PPDR) communications have been made in the current NFAP spectrum policy document to meet the spectrum requirement for various wireless communication needs during any disaster. Relevant IND 73 remark mentioned in the NFAP-2008 document, presently in force has been carved out taking into account the existing International Radio Regulation practices adopted worldwide, which depicts that requirement of public protection and disaster relief (PPDR) communications may be considered, as far as possible, in the frequency bands 380-400 MHz, 406. 1-430 MHz, 440-470 MHz, 746-806 MHz, 806-824/851-869 MHz, 4940-4990 MHz and 5850-5925 MHz on a case basis depending on specific need and equipments availability.

Automation of Spectrum Management & Augmentation Monitoring System

The project ‘Design, Supply, Installation & Commissioning’ of “National Radio Spectrum Management & Monitoring System (NRSMMMS)” is being implemented by the WPC Wing. Under the project, spectrum management and monitoring functions have been automated with a view to making these activities effective and efficient. The NRSMMMS has two interrelated components of “Automated Spectrum Management System (ASMS)” and “National Spectrum Monitoring System (NSMS)”. ASMS has been completed and is in operation.

After Completion of Operational Acceptance of NRSMMMS facilities for 20 fixed sites and 21 V/UHF Mobile stations, excluding SHF parts (fixed & Mobile), on 14 October 2008, Liability Period (DLP) has been started from 15 October 2005.

UNIVERSAL SERVICE OBLIGATION FUND

The Universal Service Obligation Fund formed by an Act of Parliament is headed by the Administrator USQ Fund, appointed by the Central Government, for the administration of the Fund. He is empowered to formulate procedures for implementation of USO Fund schemes and disbursement of funds from USOF. His office works as an attached office of the Department of Telecom, Ministry of Communications and Information Technology.

The Universal Service Support Policy came into effect from 1 April 2002. The guidelines for universal service support policy were issued by DoT and were placed on the DoT website on 27 March 2002. Subsequently, the Indian Telegraph Act, 1885 was amended giving statutory status to the Universal Service Obligation Fund (USOF) in December 2003. An ordinance was promulgated on 30 October 2006 as Indian Telegraph (Amendment) Ordinance 2006 to amend the Indian telegraph Act 1885 in order to enable provision of all types of telegraph services in rural and remote areas. Subsequently Indian Telegraph (Amendment) Act 2006 was passed on 29 September 2006.

RESOURCES FOR USO FUND

The resources for implementation of USO are raised through a Universal Service Levy (USL), which is 5 per cent of the Adjusted Gross Revenue (AGR) of all Telecom Service Providers except the pure value added service providers like Internet, Voice Mail, E-Mail service providers etc. Annual License fee payable by Basic Telephone Service/UAS Licensees for rural fixed wire-line services in rural areas has been exempted with effect from 1 October 2008. In addition, the Central Government may also give grants and loans. The balance to the credit of the Fund does not lapse at the end of the financial year. Credits to the Fund are being made through Parliamentary approvals.

FUNCTIONS AND OBJECTIVES

The USO Fund was established with the fundamental objective of providing access to 'Basic' telegraph services to people in the rural and remote areas at affordable and reasonable prices. Subsequently the scope was widened to provide subsidy support for enabling access to all types of telegraph services including mobile services, broadband connectivity and creation of infrastructure like OFC in rural and remote areas. As per the Rules, the following services shall be supported by the Fund, namely:-

Stream-I: Provision of Public Telecom and Information Services

- a) Operation and Maintenance of Village Public Telephone in the revenue villages identified as per census 1991 and installation of village Public Telephone in the additional revenue villages as per Census 2001.
- b) Provision of additional rural community phones in areas after achieving the target of one Village Public Telephone in every revenue village.
- c) Replacement of Multi Access Radio Relay Technology Village Public Telephone installed before 1st day of April 2002.

Stream-II: Provision of household telephones in rural and remote areas as determined by the Central Government from time to time

Stream-III: Creation of infrastructure for provision of Mobile Services in rural and remote areas

Stream-IV: Provision of Broadband connectivity to villages in a phased manner

Stream-V: Creation of general infrastructure in rural and remote areas for development of telecommunication facilities.

Stream-VI: Induction of new technological developments in the telecom sector in rural and remote areas

The implementation of USO related activities is carried out by the "eligible operators" as per the aforesaid Indian Telegraph (Amendment) Rules covering Basic Service Operators, Cellular Mobile Service Providers, Unified Access Services Licensees, Infrastructure Providers (IP-I) and Internet Service Providers (ISPs). These

Telecom Service Providers are both public and private sector companies. The implementation status of the activities being undertaken by the USO Fund is available on DoT website www.dot.gov.in.

REGULATORY FRAMEWORK

The Telecom Regulatory Authority of India (TRAI) has always endeavored to encourage greater competition in the telecom sector together with better quality and affordable prices in order to meet the objectives of New Telecom Policy, 1999. A number of regulations and Directions were issued by TRAI during 2009-10 which *inter-alia* included the Telecommunication Mobile Number portability Regulation 2009, Telecommunication Mobile Number portability per port transaction charge and dipping charge Regulation, Telecommunication Tariff order 2009, and Direction to Access Service providers on provision of value added services for enhanced transparency with regard to taking explicit consent of customers and preventing accidental subscription to value to Value Added Services, Direction to IPTV providers, direction to all access service providers for submission of their performance Monitoring Report etc. These directions and regulation will help to develop the telecom sector.

In order to protect the interest of the consumers, TRAI has taken steps regarding audit of metering and billing system for bringing uniformity and transparency, prescribing standard relating to accuracy of measurement and reliability of billing etc. The service providers have to furnish the Audit report to TRAI every year, with corrective action taken on inadequacies by the service providers. Besides, TRAI has undertaken activities towards consumer education.

TRAI has also taken steps to ensure the quality of the service provided by the service providers by way of monitoring the performance of Basic and Cellular Mobile Telephone Service on quarterly basis and also point out interconnection (POI) congestion through monthly reports.

The above measures are expected to facilitate orderly growth of telecom sector by promoting healthy competition and enhancing investment efficiency besides protecting interests of consumers.

The Telecom Regulatory Authority of India (TRAI) Act, 1997 (as amended) provides for the establishment of the TRAI and the Telecom Disputes Settlement and Appellate Tribunal (TDSAT) to regulate the telecommunication services, adjudicate disputes, dispose of appeals and to protect the interests of service providers and consumers of the telecom sector, to promote and ensure orderly growth of the telecom sector and for matters connected therewith or incidental thereto.

The Telecom Disputes Settlement & Appellate Tribunal (TDSAT) was created in the year 2000 by the Central Government under the TRAI Act, 1997 to settle and adjudicate disputes involving licensor, service providers and a group of consumers on telecommunication services. In January, 2004 the jurisdiction of TDSAT was extended to include broadcasting and cable services besides telecommunication services. TDSAT exercises appellate jurisdiction over regulations, determinations, orders and directions of the TRAI. It also exercises original jurisdiction.

The jurisdiction of TDSAT is exclusive and its orders can be challenged before Supreme Court of India on points of law only. Statutory appeal does not lie against the interim orders of TDSAT. TDSAT is an expert body and comprises a Chairperson

and two Members. The Chairperson happens to be a retired Judge of the Supreme Court of India while two Members are the experts in the field of administration/telecommunications.

TDSAT is not bound by the provisions of Civil Procedure Code. It has formulated its own Procedure (TDSAT Procedures 2005) which is simple and is based on the principles of natural justice. Court fee for filing a petition, appeal and Miscellaneous application before TDSAT is ₹ 5000/- ₹ 10,000/- and ₹ 1,000/- respectively.

World over the disputes in telecom and broadcasting sector are resolved by the regulator or normal courts. However, in India unique institution in the form of TDSAT exists for speedy settlement and adjudication of disputes on telecom and broadcasting sector. As such dispute resolution in India is outside the purview of the telecom regulator. Indian model for resolution of disputes has been seen with great interest by various telecom regulator. Indian model for resolution of disputes has been seen with great interest by various telecom regulators across the world as per feed back received during meetings and interaction of Hon'ble Chairperson, Members and officers of TDSAT with representatives of regulatory authorities of different countries.

RESEARCH & DEVELOPMENT

C-Dot, an autonomous society under DoT, is carrying out research & development for areas of national importance in Telecommunication. C-DoT is working on various developmental projects like shared Global System of Mobile Communication Radio Access Network (SG-RAN) for rural India, upgradation of legacy switches to Next Generation services for North Eastern region, communication monitoring systems, secure dedicated communication networks, broadband service delivery platforms like Gigabit Passive Optical (GPON) systems. The projects like SG-RAN & GPON are expected to give an impetus to indigenous manufacturing.

The increased use of new technologies, the move towards corporatisation, competition and the separation of regulatory functions from operational services require advanced level of policy, regulatory, managerial and technological expertise. In order to develop and strengthen the capability to generate this expertise, the Telecom Centers of Excellence (TCOE) concept has been established in a Public-Private Partnership (PPP) mode with all stake holders onboard. Apart from application oriented research, the Centers are designed to assist and offer training to both high level decision makers of telecommunication entities to manage sector reforms and to corporate managers for management of networks and services. There will be eight TCOEs at the premier academic institutes of the country with the seven major telecom operators supporting one center each. The spectrum management center is being developed in an autonomous model with the support of an industry consortium. To provide a further boost to our manufacturing and R&D efforts, it has been further decided to set up a Telecom Testing and Security Certification Center (TETC) for communication security, research and monitoring. A large number of companies like Alcatel, Cisco etc. have also set up their research & development (R&D) centers in India.

TELECOM PSUs

MTNL and BSNL are the two premier PSUs under the Department that have thrived to meet the growing requirements of telephones and other related service. MTNL, which was set up mainly to expand the quality telecom network and to raise revenue for developing telecommunication facilities in India's key metros-Delhi and Mumbai, has taken rapid strides since its formation in 1986, to emerge as India's Key metros -

Delhi and Mumbai, has taken rapid strides since its formation in 1986, to emerge as India's leading and one of Asia's largest telecom operating companies. Besides having a strong financial base, MTNL has achieved a customer base of 8.37 million at the end of December 2009. The company has 768037 broadband customers as on December 31, 2009. The Company has also been in the forefront of technology induction by converting 100 per cent of its telephone exchange network into the state-of-the-art-digital mode. The Govt. of India currently holds 58.25 per cent stake in the company.

BSNL formed in October, 2000, is the World's 7th largest Telecommunications Company providing comprehensive range of telecom services in India; Wireline, CDMA wireless, GSM wireless, Internet, Broadband, Carrier service, MPLS-VPN, VSAT, VoIP services, IN Services etc. Within a small span of eight years, it has become the largest public sector service provider in the country serving 90.96 million subscribers including 62.86 million wireless customers in December 2009. Rural telephony is one of the focus areas of BSNL. It has provided Village Public Telephones (VPTs) in 5.63 lakh villages and has 323.27 lakh telephones in the rural areas as on December 31, 2009. BSNL has introduced broadband services from January 2005 and has provided 47.30 lakh broadband connections till December 2009.

ITI LIMITED

ITI Limited is India's pioneering venture in the field of telecommunications since 1948. With state-of-the-art manufacturing facilities spread across six locations and a countrywide network of marketing/service outlets, the Company offers a complete range of telecom products and total solutions covering the whole spectrum of Switching, Transmission, Access and Subscriber Premises equipment. In tune with the technology trend, ITI has embarked on manufacture of mobile infrastructure equipment based on both GSM (Global System for Mobile) and CDMA (Code Division Multiple Access) technologies. ITI has also acquired the technology for manufacture of broadband infra equipment and next generation network equipment based on IP technology. ITI has a dedicated Network Systems Unit for carrying out installation and commissioning of equipments, as well as for undertaking turnkey projects and providing value added services. Network Systems Unit, has been awarded ISO 9001-2008 standard. ITI has aptly earned recognition as Top Turnkey Services Company in Indian Telecom for four years in the past.

ITI joined the league of world-class vendors of GSM technology with the inauguration of BTS equipment manufacturing facility at its Mankapur and Rae Bareli Plants, which opened a new era of indigenous mobile equipment production in the country. During the current year, Company has received a total order of 18 Million Lines from BSNL, 9 Million Lines each for West Zone & South Zone and supply of equipment for both orders are under progress. The success of technology upgradation and induction is visible across all units of ITI, which fully conform to ISO-9001:2000 Quality Management System. ISO 14001:2004 Environmental Management System standard was also successfully implemented at Palakkad, Mankapur (PCB & Hybrid Circuits Division) and Bangalore Plants, Next Generation Soft Switch and STP (Signaling Transfer Point) are slated for production at the Palakkad Plant, which is already producing SIM (Subscriber Identity Module) Cards. The Naini Plant has taken up production of SDH (Synchronous Digital Hierarchy) and DWDM (Dense Wavelength Division Multiplexing) optical equipment besides DLC (Digital Loop Carrier) equipment.

The Company is also starting the manufacturing of the broadband equipment like WiMAX / WiMAX-CPE and GPON at Rae Bareli Plant. The Company is geared to provide all equipment for total network solutions and specific communication needs of Defence forces. The Bangaluru Plant manufacturing the CDMA infra equipment, IFWTs (Integrated Fixed Wireless Terminals) and ADSL-CPE (Asymmetric Digital Subscriber Line-Customer Premises Equipment) has also set up a State-of-the-art world class Data Centre in Partnership of M/s TRIMAX on revenue sharing model to handle IP Projects for Banks/Financial sector and other Telecom related Software.

By deploying its rich telecom expertise and vast infrastructure, the Company is consolidating its diversification into IT and IT-enabled services, acquiring a competitive edge in the convergence market. ITI's competency in the WAN (wide area networking) segment is reflected through two major projects commissioned successfully for BSNL: Countrywide MLLN (Managed Leased Line Network) and SSTP (Standalone Signal Transfer Point). ITI is one of the agencies selected for preparation of National ID cards.

TELECOMMUNICATIONS CONSULTANTS INDIA LIMITED

On March 10, 1978, Telecommunications Consultants India Ltd. (TCIL) was incorporated as a wholly owned Government of India Company. The Company was set up with the objective of extending the wide ranging Indian telecom expertise to friendly developing countries. On August 1, 1978, the Company commenced its business. The Company has since then been engaged in adopting world class communication and IT technologies for catering to the total needs of countries mainly in the developing world. The Company is establishing itself in the changed Telecom and IT Scenario and has diversified into Information and Technology and Civil construction sector.

The Mission statement of company is : "To excel and maintain leadership, in providing Communication Solutions on turnkey basis in telecommunication and information technology service sector globally".

The objectives are :

- * To provide world-class technology and Indian expertise globally in all fields of telecommunications and information technology.
- * To sustain, expand and excel in its operations in Overseas/Indian Markets by developing proper marketing strategies.
- * To acquire State-of-the-Art technology on a continuous basis and maintain leadership.
- * To diversify into Cyber Parks, Cyber Cities, Intelligent Buildings, Highways and Roads and other civil works.
- * Entering areas of cost-effective network technologies for building new Telecom & IT networks and upgrading legacy networks.
- * Focusing on Broadband Multimedia Convergent Service Networks.
- * Entering new areas of IT as systems integrator in Telecom billing, customer care, value added services, e-Governance networks and the like.
- * Aggressively promoting O&M contracts abroad in the IT and Telecom fields by utilizing TCIL's expert technical manpower.

- * Developing Telecom & IT training infrastructure in countries abroad.
- * Aggressively participating in SWAN projects in various states.

The success of the telecommunications sector so far had been limited more or less to the urban areas. Over the last few years, however, the Government as well as private players has been making a concentrated attempt to replicate the success achieved in urban areas to the newer markets of rural India. While voice service has traditionally been the key driver for the development of the sector, the industry is now at the threshold of the next big shift and is poised to drive growth through other avenues. Broadband connectivity is likely to open up newer markets while at the same time improve the social and economic conditions of the lower penetrated states. Mobile VAS is expected to benefit all sections of society with relevant content being developed to enhance business, provide financial assistance, and promote education and healthcare for the masses. The relatively newer industries of telecom manufacturing and research and development bring with them a plethora of employment opportunities for all.

While celebrating the success in the telecom sector, the Government recognizes the fact that there is no room for complacency. The Government recognizes the need to take a forward-look approach, based on an appreciation of changing technologies and accelerate structural changes in this sector in line with trends in other countries to ensure that the telecommunication services are not only made available on the scale needed to sustain rapid growth in the economy as a whole but also that the quality and cost of these services come up to the requirements of a modernizing economy.

The Government is now looking forward to achieve the target of 600 million telephone subscribers by the end of Eleventh Plan.

Rural telephony continues to be thrust area of the Government; it is recognized that provision of affordable telecom services in rural areas enhances the ability of people to participate in market economy, which in turn improves their productivity and contributes to their earning. It is therefore, proposed to achieve rural teledensity of 25 per cent by means of 200 million rural connections at the end of 11th Plan. In view of the present growth, 40 per cent rural teledensity is expected by 2014.

Recognizing the potential of Broadband services in the growth process, it has been proposed in the Eleventh Plan targets to provide the broadband for all secondary and higher secondary schools; all public Health Care Centres and Gram Panchayats. It is also envisaged that internet and broad-band subscribers will increase to 40 million and 20 million, respectively, by 2010.

The Government has a vision to provide telephone connection and broadband facilities on demand across the country and at an affordable price and it thrives to achieve the same.

INFORMATION TECHNOLOGY

The Department of Information Technology is *inter-alia* responsible for formulation, implementation and review of national policies in the field of Information Technology. All policy matters relating to silicon facility, computer based information technology and processing including hardware and software, standardization of procedures and matters relating to e-commerce, internet information technology education and development of electronics and coordination amongst its various users are also with

by the Department. A brief description of the various activities and initiatives taken in the Information Technology sector is given below:

MAJOR INITIATIVES

Information Technology Sector

National e-Governance Plan was approved in May 2006 with a vision to “Make all Government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency & reliability of such services at affordable costs to realize the basic needs of the common man”.

The NeGp consists of 27 Mission Mode Project (MMPs), which are currently at different phases like conceptualization, design, implementation and post-implementation.

Central MMPs (9)	Integrated MMPs (7)	State MMPs (11)
MCA 21	CSC	Land Records (Pre NeGp)
Pensions	e-Courts	Land Records (NLRMP)
Income Tax	EDI	Road Transport
Passport and Visa/ Immigration	India Portal	Agriculture
Central Excise	NSDG	Police (CCTNS)
Banking *	E-Biz	Treasuries
MNIC/UID	e-Procurement	Municipalities
e-Office		e-District
Insurance *		Commercial Taxes
		Gram Panchayat
		Employment Exchange

* These MMPs are private sector initiatives

For the implementation of NeGP, DIT is creating a Common and Support Infrastructure (National/State Wide Area Networks, National/State Data Centres, CSCs & Electronic Service Delivery Gateway) and has made suitable arrangements for monitoring and coordinating the implementation of NeGP under the directions of the relevant competent authorities in this regard. The Department has also evolved / laid down Standards and Policy Guidelines, is providing Technical and Handholding Support, undertaking Capacity Building, R&D, etc., as required for successful implementation of various e-Governance MMPs.

STATE WIDE AREA NETWORKS (SWANS)

The Government has approved the Scheme for establishing State Wide Area Networks (SWANs) across the country, at a total outlay of ₹ 3,334 crore to be expended by the Department under Grant-in-Aid of ₹ 2,005 crore, over a period of five years. Under this Scheme, technical and financial assistance are being provided to the States/UTs for establishing SWANs to connect all State/UT Headquarters up to the Block level via District/sub-Divisional Headquarters, in a vertical hierarchical structure with a minimum bandwidth capacity of 2 Mbps per link.

SWAN proposals from 33 States/UTs have been approved, with a sanctioned total outlay of ₹ 1,964.97 crore from the Department. The State of Goa and UT of Andaman & Nicobar Islands have implemented Wide Area Networks outside SWAN Scheme.

The SWANs in 23 States i.e Haryana, Himachal Pradesh, Punjab Tamil Nadu, Gujarat, Karnataka, Chandigarh, Delhi, Tripura, Puducherry, Lakshadweep, Kerala, Jharkhand, West Bengal, Chattisgarh, Uttar Pradesh, Sikkim, Maharashtra, Uttarakhand, Assam, Madhya Pradesh Orissa and Bihar have been declared operational, SWANs in other States/UTs are in various stages of implementation. All the SWANs are expected to be completed by December; 2010. Out of sanctioned amount of ₹ 1,964.97 crore, the Department has, so far, released ₹ 562.41 crore to 44 States/UTs.

To monitor the performance of SWANs, the Department has mandated positioning Third Party Auditor (TPA) agencies by the States/UTs. As on date, 11 States i.e Haryana, Himachal Pradesh, Punjab, Gujarat, Karnataka, Kerala, Tripura, Orissa, Maharashtra, Arunachal Pradesh, and West Bengal have empanelled the TPA agencies for monitoring the performance of the SWAN in their respective State.

COMMON SERVICES CENTRES (CSCS)

The Government has approved a scheme in September 2006 for facilitating establishment of more than 100,000 broadband Internet-enabled Common Services Centers (CSCs) in rural areas of the country, over a period of 4 years. This Scheme has been approved at a total cost of ₹ 5742 crore and is being implemented as a Public Private Partnership. The CSCs are one of the three infrastructure pillars of the National e-Governance Plan and would serve as the physical front-end for delivering government and private services at the doorstep of the citizen.

80,669 CSCs have been set up in 29 States out of 1,23,037 by June 2010, Roll out have been completed for more than 70 per cent CSCs in 17 States/UTs. The G2C services which would be accessed through these centers include insurance of various certificates relating to Birth, Death, Income, Caste, Domicile, Issuance of record of rights, NREGA services, Utility Bills payments, Employment Exchange Services, Postal Services, Electoral Roll Registration, TRI Services, Integration with On-line Portals, Awareness Services for NRHM, NREGA, Ndma, NDMA etc, as well as private services (B2C) relating to micro credit, agri-insurance, computer education, cell phones coupon recharge, Railway, State Transport and Air ticketing etc.

The issue of connectivity to the CSCs has also been addressed. BSNL will provide connectivity to 41500 CSCs. This initiative is being partly funded by DIT at a cost of 550 crore. The first installment of ₹ 150 crore of DIT share has been released and it is expected that these 41500 CSCs would be connected by March 2011.

Further connectivity of 2500 CSCs situated in remote areas of NE States and other areas is also being addressed by using VSAT at a cost of ₹ 49.88 crore The first installment of ₹ 12.50 crore of DIT share has already been released to NIC (the implementing agency). These CSCs are expected to be connected by December 2009.

The issue of enabling Service Delivery is being addressed by earmarking funds to the tune of ₹ 400 crore saved out of the funds of the sanctioned plan for CSC Scheme, for establishing State Portals, State Services Gateway and bridging of gaps in Infrastructure.

One of the key components for sustainability of the CSC or the Village level Entrepreneur (VLE), is the delivery of the Government services (G2C) to the citizens through these centers. In pursuance of the Hon'able President's address to the Joint Session of the Parliament in June 2009, it has been decided that the Common services Centers will be suitably repositioned to be a network of Panchayat level Bharat Nirman Common Services Centres, to provide Government services to the citizens in rural areas. Accordingly, the CSCs are to be leveraged for various services for Bharat Nirman and for flagship Schemes like NREGA, NRHM and SSA.

STATE DATA CENTRES (SDCs)

The State Data Centre Scheme for establishing Data Centres across 35 States/UTs across the country was approved by the Government on 24 January 2008 with a total outlay of ₹1623.20 crores towards the Capital and Operational expenses over a period of 5 years. The concept is to create State Data Centres for the states to consolidate infrastructure, services and application to provide efficient electronic delivery of G2G, G2C and G2B services. These services can be rendered by the states through common delivery platform seamlessly supported by core connectivity infrastructure such as State Wide Area Network and Common Services Centres at the village level.

State Data Centre would provide much functionality. Some of the key functionalities are Central Repository of the State, Secure Data Storage, Online Delivery of services, citizen information/services portal, state internet portal, remote management and service integration. etc.

Since the approval of the SDC Scheme by the Government, Department of Information Technology has approved the proposals received from 31 States/UTs at a total outlay of ₹ 1378.00 crores. An amount of ₹ 124.00 crores as DIT share has been released to 31 States/UTs as part of their first year fund requirements.

e-DISTRICT

e-District is a State Mission Mode Project under the National e-Governance Plan. The Project aims to target certain high volume services currently not covered by any MMP under the NeGP and undertake back-end computerization to enable the delivery of these services through Common Service Centres. The implementation strategy of e-District would suitably take into account the infrastructure currently being created under NeGP such as the CSCs, SWANs, SDCs and SSDG.

The Department has approved 15 Pilot e-District projects covering 40 districts. Significant ground has been covered in Uttar Pradesh, Assam, Tamil Nadu and Bihar. In Uttar Pradesh and Assam Pilot project has gone live. In Tamil Nadu and Bihar Pilot Project has partially gone live with few services. Application development is completed in Madhya Pradesh, Orissa and West Bengal.

INDIA DEVELOPMENT GATEWAY

India Development Gateway (InDG) is a nation wide initiative that seeks to provide responsible and credible information, products and services in local languages catering to the needs of rural communities. As part of this initiative a multilingual platform www.indg.in has been established for knowledge sharing with information, products and services in six languages viz., Hindi, English, Tamil, Telugu, Marathi and Bengali on six identified verticals i.e. agriculture, health, primary education, e-Governance, rural energy and social welfare.

CYBER SECURITY

A holistic approach is followed to secure Indian Cyber Space. The approach includes R&D, legal framework, security incidents - early warning and response, best security policy compliance & assurance, International cooperation and security training.

R&D initiative is aimed at promotion of basic research, technology demonstration, proof of concept along with indigenous development of technology in the area of Cyber Security. The programme also includes establishment of test bed projects for enhancing indigenous skills and capabilities in the area of information security. The R&D programme is carried out by implementing major initiatives with the help of R&D organizations. Thrust areas of research and development identified include Cryptography and cryptanalysis; Network and Systems Security; Security; Security Architectures; Vulnerability and Assurance; Monitoring, Surveillance and Forensics.

Training center in forensics has been set up at Kerala police to facilitate cyber crime investigation. The setting-up of forensic center at Central Bureau of Investigation is in progress. Advanced version of cyber forensics tool kit namely Cyber Check was developed and released to Law Enforcement Agencies. Biometrics systems for authentication, human identification and face recognition system have been developed and validated. Development of Prototype for Intrusion Prevention System has been completed and performance testing is being carried out.

LEGAL FRAMEWORK

The Information Technology (Amendment) Act, 2008, a legal framework for transactions carried out electronically was enacted to facilitate e-Commerce, e-Governance and to take care of computer related offences. This was amended through the Information Technology (Amendment) Act 2008. The amendments were enforced and rules of important sections have been notified in October, 2009 which addresses the needs of National Cyber Security. The Act upgrades the existing legal framework to instill confidence in the users and investors in the area of Information Technology in the country. This Act *inter alia* adds provisions to the existing information Technology Act, 2000 to deal with new forms of cyber crimes like publicizing sexually explicit material in electronic form, video voyeurism and breach of confidentiality and leakage of data by intermediary and e-commerce frauds.

Indian Computer Emergency Response Team (CERT-In)

CERT-In is the national nodal agency for responding to computer security incidents as and when they occur. It creates awareness on security issues through dissemination of information on its website www.cert.in.org.in and operates 24x7 Incident Response Help Desk. It provides incident prevention and responsive services as well as security quality management services.

In the Information Technology (Amendment) Act 2008, CERT-In has been designated to serve as the national agency to perform the following functions in the area of cyber security:

- Collection, analysis and dissemination of information on cyber incidents
- Forecast and alerts of cyber security incidents
- Emergency measures for handling cyber security incidents

- Coordination of cyber incident response activities
- Issue guidelines, advisories, vulnerability notes and white papers relating to information security practices, procedures, prevention, response and reporting of cyber incidents
- Such other functions relating to cyber security as may be prescribed.

Cyber Appellate Tribunal (CAT)

The first and the only Cyber Court in the country has been established by the Central Government in accordance with the provisions contained under section 48(1) of the Information Technology Act, 2000. The court was initially known as the Cyber Regulations Appellate Tribunal (CRAT).

The Tribunal after the amendment of the IT Act in the year 2009 is known as the Cyber Appellate Tribunal (CAT). Provision has been made in the amended Act for the Tribunal to comprise a Chairperson and many other members, as the Central Government may notify/appoint.

Controller of Certifying Authorities (CCA)

The Controller of Certifying Authorities (CCA) was appointed by the Central Government under Section 17 of the Information Technology Act enacted in June, 2000. The IT Act promotes the use of Digital Signatures for e-Governance and e-Commerce through legal recognition to electronic records and treats Digital Signatures at par with hand written signatures. The Act defines the legal and administrative framework for the establishment of a Public Key Infrastructure (PKI) in the country for creating trust in the electronic environment.

The office of CCA came into existence on 1st November, 2000. The CCA licenses Certifying Authorities (CA) to issue Digital Signature Certificates under the IT Act and also exercises supervision over the activities of these Certifying Authorities. The CCA certifies Public Keys of the CAs, lays down standards to be maintained by the CAs and performs other functions under Section 18 of the Act for regulating the functions of these Certifying Authorities. Seven CAs have been licensed by the CCA.

The CAs have issued more than 15,00,000 Digital Signature Certificates so far. These are being used in applications such as Real Time Cross settlement System & EFT of the RBI, e-mail, electronic funds transfer, e-Procurement, share trading; issue of import/export licenses by DGFT and filing of company returns with the Ministry of Company Affairs.

Information Technology Investment Regions (ITIRs)

There is felt need to develop infrastructure facilities in tier-2 and tier-3 cities, as there is little scope of building additional commercial space in the five tier-1 cities New Delhi, Bangaluru, Hyderabad, Mumbai and Chennai. In order to address this need, a policy resolution for setting up Information Technology Investment Regions (ITIR) was notified by the Central Government on 29 May 2008. This transparent and investment friendly policy will help promote investment in IT-ITes/Electronic Hardware Manufacturing Units. Proposals have been received from the States of Karnataka, Andhra Pradesh and Orissa for setting up ITIR in their respective States, which are being processed for implementation.

HARDWARE AND ENGINEERING SECTOR

Special Incentive Package Scheme

In order to create a conducive environment for the high technology, capital intensive semiconductor industry and other high tech electronic items, and to attract global investments as well as bridge the viability gap due to lack of adequate infrastructure and ecosystem, a Special Incentive Package Scheme (SIPS) was announced by the Government on 21 March 2007. A set of guidelines was issued on 14 September 2007.

Indian IT-ITES Industry

The IT-ITES industry has shown remarkable resilience during the fiscal year 2009-10. The IT-ITES industry revenue (both exports and domestic) is expected to grow by over 6 per cent and reach US\$ 63.7 billion in 2009-10 as compared to US \$ 59.9 billion in 2008-09.

The Indian software and services exports including ITeS-BPO exports is estimated at US \$ 49.7 billion in 2009-10, as compared to US \$ 47.1 billion in 2008-09, an increase of 5.5 per cent. The IT services exports is estimated to be US \$ 27.3 billion in 2009-10 as compared to US \$ 25.8 billion in 2008-09, showing a growth of 5.8 per cent. ITeS-BPO exports is estimated to growth from US\$11.7 billion in 2008-09 to US \$ 12.4 billion in 2009-10, a year-on-year (Y-o-Y) growth of 6 per cent.

Though the IT-BPO sector is export driven, the domestic market is also significant. The revenue from the domestic market (IT Services and ITeS-BPO) is also expected to grow to US \$ 14 billion in the year 2009-10 as compared to US \$ 12.8 billion in 2008-09 an anticipated growth of about 9 per cent. BPO demand in the domestic market has witnessed noticeable growth over the past few years.

The IT-BPO sector has showcased India's ability to build global firms with world-class business practices that are capable of catering to the most sophisticated and demanding customers. The Industry has been a front-runner in practicing good corporate business practices as well as maintaining high quality standards, which has helped in positioning the country as a trusted business partner. This is corroborated by the fact that approximately 75 per cent of Fortune 500 companies are engaged with the Indian IT-BPO industry currently.

A continuous emphasis on quality has been a key factor driving the success of the Indian IT-BPO sector. Companies have aligned their internal processes and practices to international standards and have built robust quality processes that deliver essential benefits such as increased productivity and efficiency. An increasing number of IT-BPO companies continue to adopt global standards such as ISO 9001 (for Quality Management) and ISO 27000 (for Information Security). India-based centres (both Indian firms as well as MNC-owned captives) account for the largest number of quality certifications achieved by any single country.

The industry has significantly contributed to empowering the diverse human assets and raising aspirations. IT-BPO sector has enabled an environment for innovation and provided necessary impetus to IP creation. The industry has enhanced India's credibility as a business destination and put India on the global map. The Industry has facilitated social development, contributing over US \$ 50 million towards Corporate Social Responsibility (CSR) activities in 2008-09.

The total IT Software and Services employment is expected to reach 2.29 million in 2009-10 (excluding employment in Hardware sector), as against 2.20 million in 2008-09, a growth of 4 per cent YoY. This represents a net addition of 90,000 professionals to the industry employee base in 2009-10. The indirect employment

attributed to the sector is estimated to be about 8.2 million. Furthermore, the industry has been a front-runner in diversity at the workplace (over 30 per cent of employees are women, over 60 per cent of industry players employ differently able people).

The IT-ITeS industry's contribution to the national GDP is estimated to increase from 6.0 per cent in 2008-09 to 6.1 per cent in 2009-10.

TECHNOLOGY AND APPLICATION DEVELOPMENT

Technology Development for Indian Languages (TDIL)

Language technology development in India has today reached a stage, where it has a potential to generate utility applications, benefiting the masses, which will enable people to access and use IT solutions in their common language. The Department has further encouraged users and developers of Language Technology solutions by providing certain basic information processing tools like fronts, open office, e-mail client, internet browser, dictionary, conversion utilities, etc., free of cost, which will motivate users to use them to solve their basic problems and help developers to build advanced solutions. This will definitely boost up and leapfrog Indian language technology development and their deployment. The world is in the midst of a technological revolution knit around Information and Communication Technology (ICT).

Technology Development for Indian Languages TDIL programme under DIT has taken a major initiative to make available software tools and fonts in 22 constitutionally recognized Indian languages freely to the general public to enable wide proliferation of ICT in Indian Languages.

DIT has released the Language-CDs, containing software tools and fonts for all the 22 constitutionally recognized Indian Languages, viz., Assamese, Bengali, Bodo, Dogri, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Maithili, Marathi, Malayalam, Manipuri, Nepali, Oriya, Punjabi, Sanskrit, Santali, Sindhi, Tamil, Telugu & Urdu. These Language-CDs are being shipped to the users on formal request and can also be downloaded from the website www.ild.in.

Advanced language technologies such as "Indian Languages to Indian Languages Machine Translation System", "English to Indian Languages Machine Translation System", "Cross Lingual Information Access System", "Optical Character Recognition System" and "Online Hand-Writing Recognition System" are also being developed.

NANOTECHNOLOGY AND MICROELECTRONICS

The Nanotechnology Initiative programme of DIT was started in 2004 with focus on nano-electronics. The programme has been concentrating on institutional capacity building, infrastructure for Research & Development and human resource development in the area of nano-electronics towards making India a front runner in this revolutionary area.

Under this Programme, Centres of Excellence in Nanoelectronics are being established at IIT Mumbai, IISc Bangaluru, IIT Kharagpur and IIT Delhi on different aspects of nanoelectronics. The Centres at IIT Mumbai and IISc are concentrating on development of nano-systems for healthcare and environmental monitoring, development of organic and biopolymer devices, GaN devices, acoustic sensors, magnetic materials for LC resonators, ferroelectrics for FRAMs and phase shifters etc.

The Centre at IIT Khargpur is concentrating on design and establishment of MBE (Molecular Beam Epitaxy) cluster tool based facility for high performance and

high speed device development. The Centre at IIT Delhi will be focusing on non-silicon based nanotechnology development. A project entitled Indian Nanoelectronics Users Programme (INUP) has also been initiated at IIT Bombay and IISc Bangaluru to facility and support generation of expertise and knowledge in nanoelectronics through participation and utilization by external users of the facilities established at the Nanoelectronics Centres at IISc Bangalore and IIT-Bombay. These projects are performing well and are attracting national and international recognition and global talent to join these institutions as faculty members.

A project has also been taken up for establishment of a nano-metrology lab at National Physical Laboratory, New Delhi to provide calibration and traceability for physical dimensions at nanoscale like line width, step height, surface texture and calibration of electrical parameters like low voltages in nanovolts, low currents in picoamperes, electric charge in femtocoulombs. In addition, several small and medium level R&D projects in different areas of nanoelectronics have been initiated at academic and R&D organisations across the country.

In the area of microelectronics, projects have been initiated in the emerging areas of Analog Mixed Signal Design, Reconfigurable Integrated Circuits and Microsensors. An FPGA based Digital Programmable Hearing Aid (DPHA) has been developed and tested in the field to address the requirements of hearing impaired persons. In view of the large scale requirement of DPHA at low price, a project has been initiated for development of an ASIC based DPHA, its field testing and pilot deployment. A project has been initiated jointly with National Programme on Micro and Smart Systems (NPMASS) for augmenting the Low Temperature Cofired Ceramic (LTCC) packaging facility at C-MET Pune with a view to enhance its technical capabilities.

HUMAN RESOURCES DEVELOPMENT (HRD)

E-LEARNING

E-Learning is one of the thrust areas identified by DIT for imparting education using educational tools and communication media. It is the learning facilitated and supported by Information Communication Technologies (ICT), DIT has been financially supporting R&D projects in following thrust areas under E-Learning at various academic educational institutes, R&D Labs etc. :-

- (i) Real Time Video Compression and decompression techniques
- (ii) Developing Authoring Tools in Indian languages
- (iii) Developing Content independent of platform & environment
- (iv) Quality assurance in e-learning

The above initiatives are resulting in the development of inexpensive tools and technologies useful for management and delivery of digital content.

TRAINING ON INFORMATION/CYBER SECURITY

Academic courses on Information Security (Doctoral to short-term level) have been introduced in various institutions in the country. So far around 25,000 students have been trained/undergoing training in these courses. Special training programmes are being conducted for judicial officers, law enforcement agencies and other government officials.

To spread awareness on Information Security, 70 workshops have been organized across the country covering about 2400 Teachers/Parents/CSC/NGOs, etc., and about 8200 school children/college students. A national level certification

scheme for Information Systems Security professionals has been evolved. Level-1 of the Scheme viz. *Certified System Security Analyst (CSSA)* has been launched by DOEACC Society. The course is scheduled to commence from four centres of DOEACC Society viz. Gorakhpur, Imphal, Kolkata and Jammu/Srinagar w.e.f. July 2010.

INFRASTRUCTURE

Standardization, Testing, Quality and Certification (STQC)

Standardization, Testing, Quality and Certification (STQC) Directorate of DIT has established itself as a primer organization for Quality Assurance in the field of Electronics and Information Technology (IT) in the country. It provides Testing, Calibration, Training and Certification services through its network of fourteen test laboratories spread across the country including north-east. Additionally, Indian Institute of Quality Management (IIQM) at Jaipur, Center for Reliability (CFR) at Chennai and four Regional Certification Centres have been rendering specialized services in the respective areas. Many national and international accreditations/recognitions have made STQC services widely acceptable at international level also.

STQC IT Centres at Kolkata, Bengaluru, Delhi, Chennai, Hyderabad, Pune and Guwahati have been rendering services for the last eight years successfully. It is equipped with software tools for test automation. A number of projects sponsored by the Department in the field of Software quality Assurance, Information Security management, Indian Language Technology Products and Quality Certification have been executed. STQC has also developed Quality Assurance Framework (QAF) along with Conformity Assessment Requirements (CARE) for the National e-Governance Programme (NeGP).

STQC has launched a 'website quality certification scheme' based upon national requirements and International best practices to assure that Government websites are universally accessible and secure.

National Knowledge Network (NKN)

One of the important recommendations of the National Knowledge Commission was to establish a National Knowledge Network (NKN). Government's decision to set up the National Knowledge Network was announced by the Finance Minister in the Budget Speech of 2008-09.

The Objective of the National Knowledge Network is to interconnect all Universities, Libraries, Laboratories, Hospitals and Agricultural Institutions to share data and resources across the country over the high speed (of gigabit capabilities) information network. Network will consist of an ultra-high speed Core (multiples of 10 Gbps and upwards), and over 1350 nodes. It is scalable to higher speed and more nodes also. The Core shall be complemented with a distribution layer at appropriate speeds. The participating institutions can directly connect to the NKN at speeds of 1 Gbps or connect to the distribution layer through a last mile connectivity bandwidth.

Cabinet Committee on Infrastructure in its meeting held on 25th March 2010 approved the establishment of the National Knowledge Network (NKN) at an outlay of Rs. 5990 crore to be implemented by NIC over a period of 10 years.

A core Backbone consisting of 15 Points of Presence (PoPs) have been established with 2.5 Gbps capacity. Around 76 institutions of higher learning and advanced research have already been connected to the network and 6 virtual classrooms were setup.

National Internet Exchange of India (NIXI)

Seven Internet Exchange Nodes have been operationalised at Bengaluru (Karnataka),

Hyderabad (Andhra Pradesh) and Mohali (Chandigarh) to add to the existing National Internet Exchange of India (NIXI) hubs at Chennai, Kolkata, Mumbai and Noida. The Internet Exchange nodes have been successful in ensuring the Internet traffic originating within India resulting in improved traffic, reduced bandwidth cost and better security.

Four NIXI nodes located at Mumbai, Noida, Chennai and Bengaluru are IPv6 ready with all its functional operations available online to the member ISPs. In addition NIXI is also organizing training and workshops for Network managers and other Technical engineers through training support from Asia Pacific Network Information Centre (APNIC).

Information Technology Research Academy (ITRA)

Indian IT Industry is now a global IT hub. There is an urgent need for strengthening R&D institutions as well as the new institutions that are being established by the Government in terms of qualified faculty and R&D resources to meet this demand of IT and electronics industry. There is also need to strengthen the academia and industry R&D collaborations. Accordingly the Department is setting up an IT research capabilities. In addition to strengthening the R&D base in IT and electronics, this programme will generate a pool of Ph.Ds and researchers of high calibre to support the academic and R&D institutions in the country and also meet the growing demand of high caliber manpower by the Industry.

SOCIETIES

Centre for Development of advanced Computing (C-DAC)

C-DAC is a premier R&D organization under the Department of Information Technology, Ministry of Communications and IT with a network of labs across the country. Focus areas of technologies of great relevance to the nation are identified with long term perspective in close consultation with parent ministry and other stakeholders. The current areas of focus in C-DAC are grouped into six thematic areas namely, High performance Computing and Grid Computing, Multilingual Computing, Professional Electronics including VLSI and Embedded Systems, Software Technologies including FOSS, Cyber Security and Cyber Forensics, and Health Informatics. Some of the major initiatives and achievements of C-DAC are outlined below.

C-DAC developed several applications to demonstrate the use of High Performance Computing Systems for practical problems. The Computational Electromagnetic Code and the Computing Tools integrated package are some examples. CHReME is a portal intended for making HPC resources accessible to potential users, even to those who are not fully aware of the capabilities of this technology. C-DAC has more than 60 installations of High Performance Computing systems of varied capabilities. The North East Institute of Science & Technology, Indian Institute of Science and Education Research, Dar-es-salaam Institute for Technology in Tanzania etc. have some of the recent installations of HPC systems. Open Sees and iMOLDOCK are HPC applications which have been developed during the last year.

C-DAC has made major advances in the national Grid Computing initiatives with emphasis on Security, Infrastructure, and middleware as well as on the development of various applications. Subsequent to the Proof of Concept phase of the

Grid Garuda, the Foundation Phase was also completed. During the last year, the operational phase of Garuda was initiated. One of the important activities this year will be the migration of Garuda to the National Knowledge Network.

C-DAC has completed the work on domain name registration in 15 Indian Languages. The concept was propagated nationwide through Workshops and programmes. The web based Mantra Machine Translation System was developed as a desktop version. Unicode compliance of Lila, development of e-MahashabdKosh, tools for transliteration, Hindi-English dictionary and Automatic Speech Recognition System for Bangla are among the other major achievements in the area of language computing.

C-DAC has been actively engaged in several consortium projects in the field of language computing. The Alpha version of English to Indian Language machine translation was released for few languages. C-DAC also completed the development of self-learning package for Sanskrit Swa-adhyaya.

A vessel tracking system was developed and deployed at the Naval Underwater Range at Goa for the navigation of ships and submarines. Sonic Ultrasonic Non destructive test systems were developed and deployed for the assessment of bondage of materials used in rockets and spacecrafts. Acoustic Landmine Detection System was developed for Military for the location of buried landmines with the innovative usage of ultrasonic technology. There were major developments in the TETRA communications technology. The system was integrated into Automated dial 100 Systems for police applications in Kerala and in Distress Call Response Management Systems. There have been significant development initiatives in Power Electronics, Automation & Control and Embedded Systems. Hazardous object removal system was developed for handling disposal of explosives. Electronic perception systems for various applications were developed and deployed, particularly for the tea industry. Area Traffic Control Systems were deployed at various cities in India.

C-DAC continued to play a major role in the adoption of Open Source Software. Several training programmes were conducted, and BOSS GNU/Linux, an Indian Linux distribution brought out by C-DAC, was deployed in almost 1.25 lakh systems across the country. The National Resource Centre for Free/Open Source Software (NRCFOSS) grew to a multi Institution project in its phase II which started this year.

A new vertical, namely social welfare was added to the India Development Gateway portal. Several e-Governance projects were also implemented and replicated across various States in the country. The National Service Delivery Gateway (NSDG), meant to serve as the backbone for e-governance delivery in India, went live.

Information Security has been one of the important development activities of C-DAC. During the last year, in addition to the development of various tools and packages, C-DAC assisted the Law Enforcement Agencies in the investigation of over 200 Cyber Crimes using the in-house technology. C-DAC also implemented projects in the area of Face Recognition, Steganalysis, Intrusion Prevention and Malware Prevention System. Several Programmes were conducted for specialized training as well as for awareness building.

A Mobile Tele Oncology system was completed and deployed at Malabar Cancer Society, Kannur, which works in close coordination with the Regional Center Centre at Thiruvanthapuram. Telemedicine networks and Tele-Ophthalmology Centres were established. C-DAC developed the Software Development Kits (SDKs) for DICOM

and HL7 standards. The pulse Analyzer and Cure@Home are also important projects implemented by C- DAC in the area of Health Informatics.

C-DAC has a nationwide presence in Education and Training with many formal and short term programmes. Several Post Graduate programmes and Diploma courses were launched during the last year. C-DAC also launched the Academia collaboration initiative “TechSangam” and the Faculty updations programme “Prepare Future”.

Recently, C-DAC entered into an agreement with the King Abdul Aziz Centre of Science & Technology at Riyadh, Saudi Arabia for establishing a Centre of Excellence in ICT and for cooperation in research programmes, adding another flag in its range of International collaboration and initiatives.

DOEACC SOCIETY

DOEACC Society is an Autonomous Scientific Society of the Department to carry out human resource development and related activities in the area of Information, Electronics and Communication technology (IECT). The Society has Centres at Agartala, Aizawl, Aurangabad, Calicut, Chandigarh (with 3 branches at Shimla, Lucknow & New Delhi), Chennai, Gorakhpur, Imphal, Srinagar/Jammu, Kohima/Chuchuyimlang, Kolkata, Shillong and Tezpur/Guwahati with their Headquarter at New Delhi. It also has two regional centres at Pudukkottai (Tamilnadu) and Patna (Bihar). Two more Centres at Gangtok and Itanagar are being set up.

DOEACC Centres are conducting M.Tech, MCA, BCA & Diploma level courses which are affiliated to State University/Technical Board. Under the non-formal sector, DOEACC is offering various long term courses viz. DOEACC O/A/B/C level IT courses, CHM O & A level courses in Computer Hardware and Maintenance and BI-O/A/B level courses in Bio-informatics, Level 1 - Certified System Security Analyst (CSSA) under Certification Scheme in Information Security, ITES-BPO Banking/Customer Support Service, Entrepreneurship development etc. The DOEACC Centres are also imparting training in Short Term Courses in the areas of Information Technology, Electronics Design & Technology, Manufacturing Technology, Maintenance Engineering etc. About 60000 students are getting registered for DOEACC O/A/B/C level courses every year.

The IT literacy programme of DOEACC Society, Certificate Course in Computer Concepts (CCC) has got recognition from the State Government of Gujarat and Maharashtra as a pre-requisite for entering into Government services. Approximately 3.4 lakh candidates have appeared for the CCC Examination and more than 2.4 lakh have been certified upto March 2010.

To speed up IT literacy to the masses using the latest technologies, DOEACC has started delivering courses through e-learning mode using a Learning Management System (LMS). Currently an advanced course in NET technologies is being conducted on-line. Further, CCC course contents are made available in 10 scheduled Indian languages for free learning through a dedicated web portal-*elearn.doeace.edu.in*.

DOEACC has tied up with National Council for Promotion of Urdu Language (NCPUL), M/o HRD for conducting various IT training programmes in about 300 NCPUL Centres throughout the country.

Besides the training activities, DOEACC Centres are offering consultancy services and undertaking software development projects in addition to Government sponsored projects in the area of Education & Training, R&D, etc. An MoU has been signed with Cypress semiconductor Corporation, USA for providing technical training

and development of Intellectual property and for setting up of a joint Programmable System-on-Chip (PSoC) at DOEACC Centre, Calicut.

Software Technology Parks of India (STPI)

Software Technology Parks of India (STPI) was set up in 1991 as an autonomous society under the Department in 1991. STPI's main objective has been the promotion of software exports from the country. The services rendered by STPI for the software exporting community have been statutory services, data communication services, incubation facilities, training and value added services. STPI has played a key developmental role in the promotion of software exports with a special focus on SMEs and start up units.

As part of its statutory functions, STPI has been implementing the two schemes, viz., STP (Software Technology Parks) and EHTP (Electronic Hardware Technology Parks) Schemes. STP is a 100 per cent export oriented scheme for the development and export of IT software using communication links or physical media and including export of professional services.

Highlights of STP Scheme :

- Approval under single window clearance mechanism.
- Upto 100 per cent foreign equity permitted.
- Goods imported/procured domestically by the STP units are completely (100 per cent) duty free.
- Second hand capital goods may also be imported.
- Sales in the domestic market are permissible upto 50 per cent of the export.
- Income tax benefit under sections 10A/10B of Income Tax Act (March, 2011)

The STP scheme has been widely successful and the total exports made by STP units in 2008-09 were about ₹ 207, 358 crore and estimated Software Exports through STP units in financial year 2009-10 would be ₹ 2,21,122 crores.

STPI has been providing High Speed Data Communication (HSDC) service since its inception. STPI has designed and developed state-of-the-art High Speed Data Communication (HSDC) Network called SoftNET, which is available to software exporters at international standards at competitive prices. To overcome the last mile problem and to maximum uptime, STPI has created its own microwave radio network for local loops. The terrestrial cables (fibre/copper) are also used wherever feasible.

STPI Consultancy services cover the entire gamut of Requirement Analysis, Feasibility Study, Design, Implementation, Operations & Maintenance of Communication and IT Projects. At present, STPI is engaged in various national & international projects viz., National Internet Exchange of India (NIXI), VSAT Networking to various departments of State Government, SWAN Consultancy, and Consultancy for creation of IT Infrastructure.

"The strength of the scheme lies in the fact that, it is a virtual scheme, which allows, software companies to set up operations in the most convenient and cheapest locations and plan their investment and growth driven by business needs. STP Scheme is a pan India Scheme, which has 51 centres spread across the country and over 8000 units registered under STP Scheme."

Centre for Materials for Electronics Technology (C-MET)

C-MET has three centres at Pune, Hyderabad and Thrissur. They are developing knowledge base in Electronics Materials and their processing technology for Indian

Industries. These centres are also source of critical Electronics Materials knowhow and technical services for the industry and particularly for the strategic sectors like Defence, Space and Atomic Energy. The various centres of C-MET are focusing mainly on three areas, namely, ultra pure materials, integrated electronics packaging and nano-materials. C-MET in recent times has taken a major initiative in the area of nano-sciences and nano-technology in general and large scale generation of nano-materials, in particular.

DIT has set up a testing and certification facility at C-MET, Hyderabad for Restriction of Hazardous Substances (RoHS) compliance for EU export. This is expected to help the Indian electronics industry to get their products and systems certified for RoHS compliance which is mandatory for exporting to the EU. This facility is currently under NABL accreditation.

Society for Applied Microwave Electronics Engineering and Research (SAMEER)

SAMEER, an autonomous R&D Laboratory under DIT has been working for the development of data communication systems to enhance the quality and security of information transfer. The systems developed as far include Code Division Multiple Access (CDMA) transceivers, GSM network based low-cost radio modem for use in Supervisory Control And Data Acquisition (SCADA), telemedicine, Industry Home security etc., and high data rate transfer systems using microwave communication transceivers. SAMEER also supports India's space programme by providing C-Band and S-Band Telemetry and Telecommand (ITC) transponders for use in Indian Satellites. SAMEER's Technical Services, in the area of Electromagnetic Interference (EMI), and Compatibility (EMC) testing, evaluation and design consultancy for IT hardware manufacturers in India and abroad for quality improvement and complying with international mandatory standards and thermal design solutions for the data centers have been recognized as major support by Industries. SAMEER has been playing a key role in assisting DIT to make recommendations to appropriate authority for making EMI/EMC standards mandatory for selected IT products, manufactured in India.

National Informatics Centre (NIC)

National Informatics Centre of the Department, a premier S&T organization of DIT has been providing informatics support to Central Ministries, State Governments and District Administrations for the last few decades. ICT support has also been extended to a few neighbouring countries. For many years, NIC has played substantial role in using ICT to streamline internal Government functions and is now facilitating implementation of e-governance towards effective citizen services. As a major step in ushering in e-Governance, NIC has been involved in supporting the Government in areas of Internet/Intranet Infrastructure and IT empowerment of officers at all levels, preparing IT Plans for Sectorial Development and development IT enabled Services including G2G, G2B, G2C and G2E portals.

A countrywide satellite based communication network NICNET has been set up as backbone network infrastructure for Government informatics providing linkages in 35 States/Union Territories and 616 districts. The network infrastructure links over 3000 nodes in Wide Area Network and about 50,000 nodes of Local Areas Network Operations facility, Certifying Authority, Video-Conferencing and capacity building set up across the country. ICT support in terms of planning, software design, development and roll out is provided to almost all Central Government Ministries, Departments, State Governments and District Administrations. Open Technology

Centre (OTC) has been set up as a nodal agency for Open Technology related activities in e-Governance applications managed by NIC/NeGP and promotes the use and adoption of Open Source tools/software.

A wide range of Services are provided through NIC including Web-Services, Messaging Services, e-Commerce, e-Learning, Office Automation, IT Consultancy Services, Digital Archiving, Geographic Information Systems (GIS), Utility Mapping, Computer Aided Design, training etc. NIC has successfully implemented many major National and State level e-Governance projects in various sectors, such as, National Knowledge Network, National Portal of India, Land Records, property Registration, NREGA, e-PRI, Common Integrated Police Application, Treasuries, e-Procurement, Courts Information System, Foodgrains Management, AGMARKNET, Passport and Immigration, etc. ICT support at block levels has been set up through Community Information Centres (CICs) in 8 North Eastern States and Jammu & Kashmir, SWANs and State Data Centres have been established by NIC in many States. Data Centre has been established for the Department of Posts linking 1318 post offices through 2Mbps Leased Lines. Government e-Procurement Solution of NIC (GePNIC) provides Online Tender Creation, Publishing, Bid Submission, Bid Opening, Technical Evaluation (Offline), SOR Based Financial Evaluation, Communication and Publication of Award of Contract Information and has been implemented for procurement under Pradhan Mantri Gram Sadak Yojana in 15 states. The National Do Not Call (NDNC) Registry Portal ndncregistry.gov.in has been operationalised to restrict Unsolicited Commercial Communication (UCC) on mobile/telephone numbers. VAHAAN and SAARTHI were rolled out across the country to automate the vehicle registration and issuance of driving license processes. VAT computerization was enhanced to facilitate many e-Services, including e-Payments, implemented in number of States.

9 Defence

INDIA is strategically located vis-a-vis both Continental Asia and the Indian Ocean Region. It has a landmass of 3.3 million square kms. and is home to over billion people with varying ethnic, linguistic, religious and cultural backgrounds.

The geographical and topographical diversity, especially along 15,000 km long border which India shares with seven neighbouring countries (viz., Afghanistan, Pakistan, Bangladesh, Myanmar, China, Bhutan and Nepal), poses unique challenges to the Armed Forces. India's peninsular dimension places it adjacent to one of the most vital sea-lanes of the world stretching from the Suez Canal and Persian Gulf to the Strait of Malacca through which 55,000 ships and much of the oil from the Gulf region transit each year.

India's location at the base of continental Asia and the top of the Indian Ocean gives it a vantage point in relation to both Central Asia and the Indian Ocean Region (IOR). Additionally, India's size, strategic location, trade links and exclusive economic zone (EEZ) links its security environment directly with the extended neighbourhood, particularly neighbouring countries and the regions of Central Asia, South-East Asia, the Gulf and the Indian Ocean. In a globalised world, these strategic economic factors impose an increasingly larger responsibility on India.

In the post cold war international scenario, the 9/11 terrorist attack against the US and terrorist strikes in many other parts of the world have brought about greater international convergence on security issues and challenges. The emergence of ideology linked terrorism, the spread of small arms and the proliferation of WMD (Weapons of Mass Destruction) and globalisation of its economy are some of the factors which link India's security directly with the extended neighbourhood.

South Asia hosts a diversity of political experiences and systems. The region also faces the menace of terrorism and problems by way of proliferation of arms and drugs. Against this background, India stands as a bulwark against fundamentalism and extremism. It is a centre of economic dynamism in the region and as a plural democracy, a bastion of stability and peaceful co-existence.

National security paradigms are intimately influenced by the interplay of the interests and objectives of other countries linked to the region or with the overall international order. The developments in 2009, particularly the challenges confronting the global system, created strains in the global security environment.

A secure, stable peaceful and prosperous neighbourhood is an integral part of India's security interest. India continues to pursue positive and collaborative relationships with her neighbours so as to enable her own citizens and the people of neighbouring countries to achieve growth and prosperity. Ensuring the safety and security of its citizens remain an important priority for India.

The continued infiltrations across the LOC and the existence of terrorist camps across the Indo-Pak border demonstrate the continuing ambivalence of Pakistan in its actions against terrorist organisations. India has exercised exemplary restraint in the face of gravest provocation. Pakistan needs to take effective steps to address India's concern on terrorism directed against it from the territory under Pakistan control. India has never shut the door for dialogue with Pakistan, and is of the view

that meaningful dialogue with Pakistan is possible only in an environment free of terror or threat of terror.

India has a Strategic and Cooperative Partnership with China which has generally progressed well in 2009-10. A regular mechanism for exchanges in the military sphere has been established through the ongoing confidence building measures the Armed Forces of both countries and other military interactions.

India also remains conscious and alert about the implication of China's military modernisation on the regional and national security situation. India continues to engage with China to develop mutual trust and understanding, including the Armed Forces of the two sides.

The Indian Ocean Region which extends up to the Western Pacific, Eastern Mediterranean, Central and Southern Indian Ocean is crucial to India's maritime interests. India sits astride major commercial routes and energy lifelines in the Indian Ocean, namely, the Malacca Strait, Six and Ten degree channel and the Persian Gulf. By virtue of geography, India is interested in the security of shipping along the sea lanes of communications in the IOR. India's maritime interest is not restricted to guarding the coastline and island territories, but also includes safeguarding of India's interests in the EEZ as well as keeping Sea Lines of Communication (SLOCs) open in times of peace, tension or hostilities.

Maritime security concerns have assumed greater significance in the aftermath of the November 2008 terror attacks in Mumbai. The Indian Navy, which has been given the overall responsibility for maritime security is working in coordination with the Coast Guard and other Central and State agencies to deal with challenges of threats from the sea. The intelligence sharing mechanism has been streamlined through the creation of Joint Operation Centres and multi-agency coordination mechanism. The Indian Navy and Coast Guard have enhanced coastal surveillance and patrolling and joint exercises are also being regularly conducted with other agencies to improve operational coordination.

With a steadily growing economy, India has a vital stake in a safe and secure world. India and Indians have increasingly become drivers of global growth and prosperity. A strong defence force is a necessary prerequisite for growth, stability and peace. India has been committed to prepare its level of defence preparedness to deter any type of threat both conventional as well as unconventional.

ORGANISATIONAL SET UP AND FUNCTIONS

The Government of India is responsible for ensuring the defence of India and every part thereof. The Supreme Command of the Armed Forces vests in the President. The responsibility for national defence rests with the Cabinet. This is discharged through the Ministry of Defence, which provides the policy framework and wherewithal to the Armed Forces to discharge their responsibilities in the context of the defence of the country. The *Raksha Mantri* (Defence Minister) is the head of the Ministry of Defence. After Independence, Ministry of Defence was created under the charge of a Cabinet Minister and each service was placed under its own Commander-in -chief. In 1955, the Commanders-in-chief were renamed as the Chief of the Army Staff, the Chief of the Naval Staff and Chief of the Air Staff. In November, 1962 a Department of Defence Supplies was created for planning and execution of schemes for import substitution of defence requirements. These two departments were later merged to

form the Department of Defence Production and Supplies. In 2004, the name of the Department of Defence Production and Supplies was changed to Department of Defence Production. In 1980, the Department of Ex-Servicemen Welfare was created. The Defence Secretary functions as head of the Department of Defence and is additionally responsible for coordinating the activities of the four departments of the Ministry.

The principal task of the Ministry is to frame policy directions on defence and security related matters and communicate them for implementation to the Services Headquarters, Inter-Service Organisations, Production Establishments and Research and Development Organisations. It is required to ensure effective implementation of the Government's policy directions and the execution of approved programmes within the allocated resources.

The principal functions of the Departments are as follows:

- (i) The Department of Defence deals with the Integrated Defence Staff (IDS) and three Services and various Inter-Service Organisations. It is also responsible for the Defence Budget, establishment matters, defence policy, matters relating to Parliament, defence cooperation with foreign countries and coordination of all defence related activities.
- (ii) The Department of Defence Production is headed by a Secretary and deals with matters pertaining to defence production, indigenization of imported stores, equipment and spares, planning and control of departmental production units of the Ordnance Factory Board and Defence Public Sector Undertakings (DPSUs).
- (iii) The Department of Defence Research and Development is headed by a Secretary, who is the Scientific Adviser to the *Raksha Mantri*. Its function is to advise the Government on scientific aspects of military equipment and logistics and the formulation of research, design and development plans for equipment required by the Services.
- (iv) The Department of Ex-Servicemen Welfare, headed by a Secretary, deals with all resettlement, welfare and pension matters of Ex-Servicemen.

Headquarter Integrated Defence Staff (HQIDS) was created on October 1, 2001 based on the recommendation of the Group of Ministers, which was set up in 2000 post Kargil to review the Nation's higher defence management. Since then, HQ IDS has been acting as the single point organisation for inculcating jointness and synergy between the Armed Forces, by way of integrating policy, doctrine, war fighting and procurement.

The three Services Headquarters, viz., the Army Headquarters, the Naval Headquarters and the Air Headquarters function under the Chief of the Army Staff (COAS), the Chief of the Naval Staff (CNS) and the Chief of the Air Staff (CAS) respectively. The Inter-Service Organisations, under the Department of Defence are responsible for carrying out tasks related to common needs of the three Services such as medical care, public relations and personnel management of civilian staff in the Defence Headquarters.

A number of Committees dealing with defence related activities assist the *Raksha Mantri*. The Chiefs of Staff Committee is a forum for the Service Chiefs to discuss matters having a bearing on the activities of the Services and also to advise the

Ministry. The position of Chairman of the Chiefs of Staff Committee devolves on the longest serving Chief of Staff, and consequently rotates amongst the three Services.

Finance Division in the Ministry of Defence deals with all matters having a financial implication. This Division is headed by Secretary (Defence Finance)/ Financial Adviser (Defence Services) and is fully integrated with the Ministry of Defence and performs an advisory role.

ARMY

The Indian Army has a vision to consolidate itself into a highly motivated, optimally equipped, modernised, operationally ready force, capable of functioning in a synergised joint service environment, across the spectrum of conflict.

The Indian Army's role is essentially for deployment along the borders. It has also been contributing in spheres of internal security and disaster management as an aid to civil authority, whenever the situation has demanded.

The modernization and transformation of the Army is being actively pursued to constantly evolve and develop requisite capabilities so that there is a lethal, agile and network force prepared to meet the complex security challenges of the 21st century. The focus of modernisation efforts is on precision fire power, air defence, aviation, infantry soldier as a system, infrastructure development, network centricity and achieving battle field transparency through improved surveillance, night vision and target acquisition. A number of measures have been initiated to ensure optimal fructification of modernization plans.

The Armoured Corps is in the process of rapid modernization as per the requirements of changing battle field scenario. There is a focus on upgradation of tanks and equipping them with modern fire control systems.

Towards the modernization of the Mechanised Infantry, contracts for procurement of Environmental Control System and Instant Fire Detection and Suppression System for BMP-2/2K, Battle Field Surveillance Radar (Medium Range) on TATRA 8x8 and Thermal Imaging Sight to replace Milan Infra Red Attachment (MIRA) night sight have been concluded during the year.

A proposal for procurement of Brahmos Supersonic Cruise Missile System for two regiments of the Indian Army has been approved. The contract has been concluded in March 2010.

The plan to modernise the infantry soldier is being given the desired impetus, through acquisition of Assault Rifles and Night Binoculars for Special Forces. Bullet Proof Vehicles for use in counter-insurgency operations are under trial evaluation. Procurement of advanced simulator systems for training is also underway.

NAVY

The Indian Navy by virtue of its capability, strategic positioning and robust presence in the areas of interest has been a catalyst for peace, tranquillity and stability in the (IOR). Indian Navy has engaged other maritime nations, to support national initiatives of cooperation and engagement. The operational activities have been conducted to ensure a measure of stability and tranquility in the waters around areas of interest, so as to support the maritime trade and energy flow, on which the economy is critically dependent. The Indian Navy is enhancing its capabilities, cooperation and inter-operability with regional and extra-regional navies.

The process of modernization of the Indian Navy is progressing at the desired pace. The national ship building industry has substantially contributed in enhancing maritime capability, in terms of force accretion. In the immediate future, the Indian Navy plans to acquire ships, submarines and aircraft in accordance with the long term Maritime Capability Plan.

In continuation with the policy of enhancing cooperation with foreign navies, a series of exercises were conducted. This included Indra 01/09, Konkan 09, Malabar 10, Varuna 10 and SIMBEX 10.

The air squadrons INAS 311 and INAS 350 were commissioned on 24th March, 2009. Indian Naval Air Station Parundu was commissioned on 26th March, 2009 at Uchipulli in Ramnad District of Tamil Nadu. INS Airavat, The fifth LST(L) Class Ship was Commissioned on 19th May, 2009 at Visakhapatnam. INS Chetlat and Car Nicobar were commissioned on 16th February, 2009. INS Cheriyam and Cora Divh were Commissioned on 10th September, 2009. INS Shivalik was commissioned on 29th April, 2010.

COAST GUARD

The Indian Coast Guard came into being as an Armed Force of the Union in 1978, on the recommendations of Rustamji Committee for Preservation and Protection of the Exclusive Economic Zone (EEZ). The Coast Guard is mandated to keep India's EEZ measuring over 2.02 million Sq Km. under surveillance for the safety, security and law enforcement. The Indian Coast Guard is mandated to protect by such measures as it thinks fit the maritime and other national interests of India in the maritime zones of India. The duties and functions of the service are as follows :-

- (a) Safety and protection of artificial islands and offshore terminals, installations and devices in Maritime Zones.
- (b) Protection and assistance to fishermen at sea while in distress.
- (c) Preservation and protection of marine environment.
- (d) Prevention and control of marine pollution.
- (e) Assistance to customs and other authorities in anti-smuggling operations.
- (f) Enforcement of enactments being in force in the maritime zones.
- (g) Other matters, including measures for the safety of life and property at sea and collection of scientific data.
- (h) To assist Indian Navy during war situation.

In addition to the mandate laid down under section 14 of Coast Guard Act, 1975, the Indian Coast Guard has also been entrusted the following lead roles:-

- (a) Offshore Security Co-ordination Committee.
- (b) National Maritime Search and Rescue Co-ordinating Authority.
- (c) Lead Intelligence Agency for Coastal and Sea Border.
- (d) Coastal Security in territorial waters.

The command and control of the Coast Guard lies with the Director General of Indian Coast Guard at New Delhi. The Organisation has four Regional Headquarters at Mumbai, Chennai, Gandhinagar and Port Blair. These Regional Headquarters exercise Command and Control in the seas adjoining the entire coastline of India, through 11 Coast Guard District Headquarters located along the coastal States of India. In addition, there are 14 co-located and 14 Independent Stations at strategic

locations. Two Air stations, three Air Enclave and three independent Air Squadrons have been set up for deployment of aircraft for Search and Rescue and maritime surveillance.

Since its inception, the Coast Guard has acquired a wide range of capabilities, both surface and airborne, to undertake the assigned tasks during peace time and to supplement the efforts of Indian Navy during war.

AIR FORCE

Over the years (IAF) has grown in stature and capability and has evolved into one of the finest Air Forces in the world. New sets of challenges require new methods to be adopted to neutralize them. Speed of response and flexible application of Aerospace power is the key to success in such situations. Today IAF is on path to develop an entirely new generation of capabilities. The challenge is to smoothly integrate new technology while fulfilling the responsibility of the guardian of our airspace.

Contract for supply of additional Su-30 MKI aircraft was signed with HAL in March 2007. A Letter of Offer and Acceptance (LOA) for acquisition of C-130J aircraft has been signed with the US Government. A contract has been signed with M/s Rosonboron Export, Russia for delivery of Mi-17V5 helicopters.

The AWACS was formally inducted into IAF on May 28, 2009 by *Raksha Mantri*. The AWACS induction into the IAF has heralded a new age of modern warfare, boosting the IAF's campaign to acquire a network centric warfare capability.

The upgrade of DARIN-I Jaguar aircraft to DARIN-III standard has been approved and is planned to be completed by 2017-2018. The Government has approved the upgrade of MiG-27 aircraft through the indigenous route. A contract was signed with RAC MiG for the upgrade of MiG-29 aircraft which will be completed by 2014.

A Contract has been concluded with M/s STE, Ukraine for Total Technical Life extension up to 40 years and re-equipment with latest version of systems to meet the present ICAO standards for entire AN-32 fleet.

COMMISSIONED RANKS

The following are the commissioned ranks in the three Services; each rank is shown opposite its equivalent in the other Service:

Army	Navy	Air Force
General	Admiral	Air Chief Marshal
Lieutenant General	Vice-Admiral	Air Marshal
Major General	Rear Admiral	Air Vice-Marshal
Brigadier	Commodore	Air Commodore
Colonel	Captain	Group Captain
Lieutenant Colonel	Commander	Wing Commander
Major	Lieutenant Commander	Squadron Leader
Captain	Lieutenant	Flight Lieutenant
Lieutenant	Sub-Lieutenant	Flying Officer

RECRUITMENT

The Armed Forces epitomize the ideals of service, sacrifice, patriotism and composite culture of the country. Recruitment to the Armed Forces is voluntary and open to all

citizens of India irrespective of caste, class, religion and community provided the laid down physical, medical and educational criteria are met.

Recruitment of Commissioned Officers in Armed Forces through UPSC: Commissioned Officers in the Armed Forces are recruited mainly through the UPSC which conducts the following two All India Competitive Examinations:-

(a) **National Defence Academy (NDA) and Naval Academy (NA):** The UPSC holds entrance examination twice a year for entry into the NDA and NA. Candidates on completion of 10+2 examination or while in the 12th standard are eligible to compete.

(b) **Combined Defence Service Examination (CDSE):** CDSE is conducted by the UPSC twice a year. University graduates or those in final year of graduation are eligible to appear in the examination. Successful candidates join the Indian Military Academy/ Air Force Academy/ Naval Academy for Permanent Commission and Officers Training Academy (OTA) for Short Service Commission.

RECRUITMENT IN ARMY

Apart from recruitment through the UPSC, the commissioned officers are also recruited in Army through the following Non-UPSC entries:

(a) **University Entry Scheme (UES):** Final/ Pre-Final year engineering degree course students in the notified engineering disciplines are eligible to apply for Permanent Commission in the Technical Arms of the Army as Commissioned Officers under the UES. Eligible candidates are selected through a campus interview by the Screening Teams deputed by the Army Headquarters. These candidates are required to appear before SSB and Medical Board.

(b) **Technical Graduates Course (TGC):** Engineering graduates from notified disciplines of engineering/ post graduates with minimum second division aggregate marks (for Army Education Corps only), are eligible to apply for Permanent Commission through this entry. After the SSB and the Medical Board, the selected candidates are required to undergo one year pre-commission training at the IMA, Dehradun, before being commissioned.

(c) **Short Service Commission (Technical) Entry:** The Short Service Commission (Technical) Entry Scheme provides avenues to eligible technical graduates/ post graduates for recruitment in Technical Arms. After SSB and Medical Board, the selected candidates are required to undergo approximately 49 weeks pre-commission training at OTA, Chennai.

(d) **10+2 Technical Entry Scheme (TES):** Candidates who have qualified 10+2 CBSE/ ICSE/ State Board Examination with minimum aggregate of 70 per cent marks in Physics, Chemistry and Mathematics are eligible to apply for commission under the 10+2(TES).

(e) **Short Service Commission (Women) :** Women are offered Short Service Commission in three streams. viz., Non-Technical Graduate, Technical, Post Graduate/Specialist, for a period of ten years, extendable by additional four years purely on voluntary basis. The duration of training is 49 weeks at Officers training Academy, Chennai. For Short Service Commission (Women) (Technical) Entry, candidates who have passed or are appearing in final year/semester of B.E./B. Tech in notified streams are eligible to apply. Candidates have to appear for SSB interview followed by Medical Test.

(f) **NCC (Special Entry Scheme):** University graduates possessing NCC 'C' Certificate with minimum 'B' grade and 50 per cent aggregate marks in graduation examination are eligible to apply for Short Service Commission through this entry. Such cadets are exempted from written examination conducted by the UPSC and are directly put through the SSB interview followed by a Medical Board.

(g) **Judge Advocate General Entry:** Law graduates with minimum 55 per cent aggregate marks in LLB, who are within the age between 21 to 27 years, can apply for Judge Advocate General Branch. Eligible candidates are called for direct SSB interview and thereafter for medical test. It is a Short Service Commission Entry wherein suitable candidates can opt for Permanent Commission.

Recruitment of Personnel Below Officers Rank (PBOR): In the Army, there are eleven Zonal Recruiting Offices, two Gorkha Recruiting Depots, one Independent Recruiting Office and 59 Army Recruiting Offices in addition to 47 Regimental Centres which carry out recruitment through rallies in their respective areas of jurisdiction. All recruitment is being carried out through open rally system.

Recruitment of Personnel Below Officer Rank (PBOR) is carried out through open rally system. The recruitment of PBOR commences with the preliminary screening of aspiring candidates at rally site followed by document checking, physical fitness tests, physical measurement, and medical examination. This is followed by a written examination for the candidates found eligible in all respects. Finally selected candidates are dispatched to respective Training Centres for training.

RECRUITMENT IN NAVY

Recruitment of Officers through Non-UPSC Entries : Apart from UPSC entries, Commissioned Officers are recruited through Non-UPSC entries for Permanent Commission (PC) and Short Service Commission (SSC) cadres. For such entries, applications are invited and short listed at Integrated Headquarters of Ministry of Defence (Navy) [IHQ of MoD (Navy)]. The short listed candidates are then sent for SSB interviews for the following Branches/Cadres of the Navy;

- (a) **Executive :** Short Service Commission for Air Traffic Control/Law/ Logistic/Naval Armament Inspectorate (NAI)/ Hydro cadres/Pilot/ Observer and Permanent Commission in Logistic/Law/NAI Cadres.
- (b) **Engineering (Including Naval Architects) :** Short Service Commission through University Entry Scheme (UES), Special Naval Architects Entry Scheme (SNAES) and SSC (E) Schemes. Permanent Commission through 10+2 (Tech) Scheme.
- (c) **Electrical Engineering :** SSC entry through UES and SSC(L) Schemes, Permanent Commission is through 10+2 (Tech) Scheme.
- (d) **Education Branch :** Permanent Commission and Short Service Commission schemes exist for this branch.
- (e) **10+2 Scheme :** The Scheme is a Permanent Commission entry for commission in the Executive, Engineering and Electrical branches of the Indian Navy. Under the scheme, candidates with 10+2 (PCM) qualifications, after selection through the Services Selection Board, are sent to the Indian Naval Academy for a B Tech Course.

- (f) **University Entry Scheme (UES)** : Under UES Final and Pre-Final year Engineering students are eligible for induction into the technical Branches/ Cadres of the Navy. Naval selection teams from the IHQ of MoD (Navy) and Command Headquarters visit AICTE approved engineering colleges, across the country, to shortlist the candidates. The short listed candidates, based on All India Merit, are called for interview at the Services Selection Board.
- (g) **Women Officers** : Women are being inducted into the Navy, as Short Service Commission (SSC) officers in the Executive (Observer, ATC, Law and Logistic Cadres), Education Branch and the Naval Architecture Cadre of the Engineering Branch.
- (h) **Recruitment through NCC** : University graduates possessing NCC 'C' certificate, with minimum 'B' grading and 50 per cent marks in the graduation degree examination, are inducted in the Navy as regular commissioned officers. These graduates are exempted from appearing in the CBSE conducted by the UPSC and are selected through the SSB interview only.
- (i) **Special Naval Architecture Entry Scheme** : The Government has recently approved induction of 45 Naval Architect officers into the Naval Architecture Cadre of the Engineering Branch in the Navy, as Short Service Commissioned Officers. An empowered Naval team visits IIT *Kharagpur*, IIT *Chennai*, *Cochin* University of Science and Technology (CUSAT) and *Andhra* University, where B Tech (Naval Architecture) course is conducted, to select the candidates through campus interviews. The selected candidates undergo medical examination at the nearest Military Hospital and, if found fit, are selected for training.

Recruitment of Sailors : Recruitment of Sailors in the Navy is carried after the process of a written examination, physical fitness test and medical examination.

Types of Entries of Sailors : The various entries, for recruitment of sailors, are as follows :-

- (a) Artificer Apprentices (AAs) - 10+2 (PCM).
- (b) Direct Entry (Diploma Holders) [Diploma in Mechanical\Electrical\Electronics/Production/Aeronautical/Metallurgy/Shipbuilding.
- (c) Senior Secondary Recruits (SSR) - 10+2 (:Sc.).
- (d) Matric Entry Recruits (MR), for recruitment of Cooks, Stewards and Musicians - Matriculation.
- (e) Non Matric Recruit (NMR), for recruitment of Topass sailors (Safaiwala) - Class VI.
- (f) Direct Entry Petty Officer (Outstanding Sportsmen).

RECRUITMENT IN INDIAN AIR FORCE

Recruitment of Officers through Non- UPSC Entries: Recruitment of Commissioned Officers in the Indian Air Force is mainly done through the Union Public Service Commission (UPSC). For technical branches, women special entry scheme, National Cadet Corps (NCC) special entry scheme, service entries, recruitment is made directly through the Recruiting Directorate for the Indian Air Force.

(a) Recruitment through Service Selection Boards: Recruitment through Service selection Boards/Air Force Selection Boards is made for the Flying (Pilot), Aeronautical Engineering (Electronics), Aeronautical Engineering (Mechanical), Education, Administration, Logistics, Accounts and Meteorology branches of the Air Force.

(b) University Entry Scheme: Final/ pre-Final year students in engineering disciplines are eligible for induction into the technical branches of Air Force as Permanent Commissioned Officers under the University Entry Scheme.

(c) Recruitment of Women Officers: Eligible women are recruited as Short Service Commissioned Officers in the Flying, Aeronautical Engineering (Electronics), Aeronautical Engineering (Mechanical), Education, Administration, Logistics, Accounts and Meteorology branches of the IAF.

(d) Recruitment through National Cadet Corps(NCC): University graduates possessing NCC 'C' Certificate with minimum 'B' grading and 50 per cent marks in graduation are inducted in the IAF as Regular Commissioned Officers by way of selection through the Service Selection Boards.

Recruitment of Personnel Below Officer Ranks (PBORs) : The selection of candidates for PBORs is carried out through a centralized selection system on All India basis in which Central Airmen Selection Board (CASB) assisted by 14 Airmen Selection Centres (ASCs) located at different parts of the country, carries out the recruitment. The selection of candidates is carried out through centralized Scheduled Tests (STs).

NATIONAL CADET CORPS

The National Cadet Corps (NCC) was established under the NCC Act, 1948. It has completed 61 years of existence. The NCC strives to provide the youth of the country opportunities for all round development with a sense of commitment, dedication, self-discipline and moral values, so that they become useful citizens. The motto of NCC is "Unity and Discipline".

The NCC's presence extends to 610 districts of the country covering 8770 schools and 5521 colleges. The sanctioned strength of NCC cadets is 13 Lakh.

Director General, NCC located at New Delhi controls and oversees various activities of the NCC through 16 NCC Directorates spread across the country. There is a Central Advisory Committee for the NCC to provide overall policy guidelines. NCC is manned by the service personnel, Whole Time Lady Officers, teachers/professors and civilians. One lecturer/ teacher in each educational institution is appointed Associate NCC officer.

TRAINING FOR DEFENCE SERVICES

A large number of training institutions in the Defence Sector work in coordination with one another. The important ones are described in the following paragraphs.

Sainik Schools : Sainik Schools were established as a joint venture of the Central and State Governments. These are under the overall governance of Sainik Schools Society. At present there are 24 Sainik Schools located in various parts of the country. Sainik School at Rewari (Haryana) is the latest one started in March 2009.

The objectives of Sainik Schools include bringing quality public school education within the reach of the common man, all-round development of a child's personality and to remove regional imbalance in the officer's cadre of the Armed

Forces. The Sainik Schools prepare boys academically, physically and mentally to join Armed Forces through the National Defence Academy (NDA).

Rashtriya Military Schools : The Five Rashtriya Military Schools (earlier known as Military Schools) affiliated to CBSE are functioning at Ajmer, Bengaluru, Belgaum, Dholpur and Chail. The Military Schools admit boys in class VI, based on the results of an all India Entrance Examination. While 67 per cent seats are reserved for the wards of JCOs/ORs called 'entitled category', out of 33 per cent non-entitled category seats, 20 per cent are reserved for wards of service officers.

National Defence Academy (NDA) : The National Defence Academy (NDA) is the country's premier inter-service training institution. The three years course at the NDA is covered in six semesters. On conclusion of this training, the cadets proceed to their respective Service Academies for further training before being commissioned as officers in the Armed Forces.

Rashtriya Indian Military College (RIMC) : The Rashtriya Indian Military College (RIMC) was founded on March 3, 1922, with the objective of providing the necessary preliminary training for boys of Indian birth or domicile, wishing to become officers in the Armed Forces of India. The institution now serves as a feeder institute to the National Defence Academy. Selection for RIMC is through a written examination cum viva voce conducted through the State Governments. Seats for respective States are reserved based on population.

Indian Military Academy (IMA): Founded in 1932, Indian Military Academy, Dehradun aims at the fullest development of intellectual, moral and physical qualities of persons joining the Army as officers. The IMA also imparts training to Gentlemen Cadets from friendly countries.

Officer Training Academy (OTA) : The Academy trains cadets for Short Service Commission. With the entry of women officers in the Army since September 21, 1992, around 100 lady officers now get commissioned from OTA every year in Army Service Corps, Army Education Corps, Judge Advocate General's Department, Corps of Engineers, Signals and Electrical and Mechanical Engineers.

College of Military Engineering (CME) : The College of Military Engineering at Pune is a premier technical institution conducting training for personnel of the Corps of Engineers, other Arms and Services, Navy, Air Force, Para Military Forces, Police and Civilians. Besides, personnel from friendly foreign countries are also trained. CME is affiliated to Jawaharlal Nehru University (JNU) for the award of B.Tech and M. Tech degrees.

National Defence College : The National Defence College (NDC) has established a name for itself as a centre of excellence on matters pertaining to national security and strategic studies. Selected Armed forces officers of the rank of Brigadier/ equivalent and Civil Services officers of equivalent status of Director and above are nominated for training at the college. The officers undergo an eleven months programme with focus on National Security, covering all dimensions of domestic, regional and international issues to equip future policy makers with background necessary to get a broad understanding of the multifarious economic, political, military, scientific and organizational aspects that are essential for planning of National Strategy.

College of Defence Management : The College of Defence Management (CDM) is a Tri-Service category “A” training establishment in existence for over three decades now. It is entrusted with the responsibility of instilling contemporary management thoughts, concepts and practices in the senior leadership of the Armed Forces. Osmania University recognizes the core course of CDM, namely the Higher Defence Management Course for the award of the Master of Management Studies (MMS) degree.

Defence Services Staff College (DSSC) : The Defence Services Staff College (DSSC) is one of the oldest military institutions in India which imparts training every year to approximately 440 selected officers of the defence forces including more than 34 officers from friendly foreign countries and a few selection officers from central civil services.

PRODUCTION

The Department of Defence Production deals with the indigenization, development and production of defence equipment both in the public and private sectors. The Department has Defence Public Sector Undertakings and ordnance factories with a wide-ranging production infrastructure. The products include aircraft and helicopters, warships, submarines, heavy vehicles and earthmovers, missiles, a variety of electronic devices and components for the defence sector, and alloys and special purpose steel. Since independence, the defence production sector has been developing steadily, with the objective of achieving self-reliance.

ORDNANCE FACTORIES

There are 39 ordnance factories that manufacture a wide variety of arms, ammunition, battle tanks, armoured vehicles, heavy duty vehicles, military electronic products and other defence equipment for the armed forces. Two new factories, one for artillery ammunition and other for carbines are under construction. Ordnance factories are managed by the Ordnance Factory Board which has its headquarters in Kolkata. The factories have been continually upgrading and modernizing their production facilities to meet the increasing demands of armed forces and MHA for state of the art equipment.

DEFENCE UNDERTAKINGS

Hindustan Aeronautics Limited (HAL)'s core business activities comprise of design, development and production of fixed wing aircraft (Fighters, Trainers and Transport) and Helicopters, their avionics and accessories and life cycle customer support through Maintenance, Repair and Overhaul (MRO) of aerospace products. The Company also manufactures Structures and Integrated systems for space launch vehicles and satellites. A dedicated Aerospace Division has been created for the launch vehicle structures of our space programs. Structures and heat shields for the GSLV, PSLV, INSAT are manufactured in this plant located in Bengaluru. Special high-tech facilities have been established to take up production of thin-walled huge aluminium alloy structures.

Bharat Electronics Limited (BEL) was established at Bengaluru by the Government in the year 1954 to meet the needs of the Indian Defence Services. The company has developed core competencies in areas of (i) Radars, (ii) Sonars (iii) Communication (iv) Electronic Warfare System (v) Electro Optics, and (vi) Tank Electronics. About 85 per cent of the turnover of the company comes from these business segments. Apart

from these areas, BEL manufactures a large variety of components like electron tubes, semiconductor devices, solar cells etc.

BEML Ltd is engaged in the design, manufacturing, marketing and after sales support of a wide range of Mining and construction equipment such as Bulldozers, Excavators, Dump Trucks, Loaders, Walking Draglines, Mining Shovels, Motor Graders, Cranes etc., BEML manufactures and supplies a whole gamut of defence and railway products. New defence products developed by BEML during 2009-10 are Snow Cutter, Aircraft Towing Tractor-28T and Aircraft Towing Tractor - 28T. The Company also supports India's missile programme by supplying equipment such as Missile Carrier, Missile Launcher, Oxydiser Carrier, Warhead Carrier and Mast Systems for carrying Surveillance Radars.

Mazagon Dock Limited (MDL) is a Premier Ship Builder to the Nation capable of building warships, merchant ships and submarines. At present, MDL is building six frontline warships under two major shipbuilding projects and six submarines under a separate project. Stealth Frigates and Missile Destroyers and Submarines of Scorpene class are being built. In the civil sector one dredger is being built for the Dredging Corporation of India Limited (DCIL). The order for dredger was obtained against global tender. MDL is also building two Multi-purpose Support Vessels for export to Singapore based company.

Goa Shipyard Ltd (GSL), is one of the leading shipyards, building medium-sized sophisticated vessels for the Indian Navy, Indian Coast Guard and others. The Company has diversified into construction of Damage Control Simulator (DCS), Survival at Sea Training Facility (SSTF), marketing of Stern Gear system and building Glass Reinforced Plastic (GRP) boats and constructing Shore Based Test Facility (SBTF). The product range of the shipyard comprises 105m Advanced Offshore Patrol Vessels (AOPV), 105m Naval Offshore Patrol Vessels (NOPV), 90m Offshore Patrol Vessels (90 OPV), 50m Fast Patrol Vessels (FPV), Missile Boats (MB), Hydrographic Survey Vessels (HSV), Extra Fast Attack Crafts (XFAC), Sail Training Ship (STS), Landing Craft Utility (LCU), Seaward Defence Boats (SDB), Torpedo Recovery Vessels (TRV), Passenger Vessels (PV), Tugs etc.

Garden Reach Shipbuilders and Engineers Ltd. (GRSE) is recognized as a leading Shipbuilding yard and manufacturer of high value, high technology, complex engineering items. The Company is a leading International Shipbuilder, ship repairer and manufacturer of ship borne machinery and systems. Overall shipbuilding constitutes 85 per cent of value of production while the Engineering and Engine Divisions contribute the balance 15 per cent. GRSE has gained expertise in construction of Warships for the Indian Navy. Ships and Hovercrafts for the Coast Guard, Fast Interceptor Boats (FIB) for Ministry of Home Affairs and Passenger-cum-Ferry Vehicles for the Andaman and Nicobar Administration.

Hindustan Shipyard Limited has built 162 ships of various types in its seven decades of existence. Size and capacity wish it the largest shipyard. The Shipyard was originally with the Ministry of Shipping. It was transferred to the Department of Defence production in February 2010. The shipyard has designed 40 vessels in-house and has collaboration with a Russian Yard for submarine repairs.

Bharat Dynamics Limited was established in 1970 for manufacture of Guided Missiles. Besides producing indigenously developed Prithvi (tactical battlefield surface to surface) and Akash (Long range surface to Air) missile systems under the

IGMDP, BDL is engaged in production of Konkurs - M and Invar (3UBK-20) Anti Tank Guided Missiles (ATGMs) in collaboration with Russia and Milan 2-T ATGM in collaboration with MBDA, France. In house developed Counter Measure Dispensing System has been accepted by the Indian Air Force BDL, is presently working for adaptation of the system to a variety of Aircraft Platforms and also developing RF controlled Anti Tank Guided Missile (ATGM). The Company has ventured into productionising underwater weapon systems such as Advanced Light Weight Torpedo (TAL), Heavy Weight Torpedo (Varunastra) and Light Weight Mines in Concurrent Engineering mode in association with NSTL, Visakhapatnam.

Mishra Dhatu Nigam Limited (MIDHANI) was incorporated as a Public Sector Undertaking under the Administrative Control of the Government in 1973 to achieve self-reliance in the manufacture of Superalloys, Titanium alloys and Special Purpose Steels required for strategic sectors such as Aeronautics, Space, Armaments, Atomic Energy, Navy. Special products such as Molybdenum wires and plats. Titanium and Stainless Steel tubes, alloys for electrical and electronic application such as Soft Magnetic alloys, Controlled expansion alloys and Resistance alloys also form part of the production.

RESEARCH AND DEVELOPMENT

Defence Research and Development Organisation (DRDO) is the Research and Development wing of the Department of Defence Research and Development of the Ministry of Defence, with a vision to empower India with cutting-edge defence technologies. Its mission is to achieve self-reliance in critical defence technologies and systems, by indigenisation and innovation, while equipping the armed forces with state-of-the-art weapon systems and equipment. DRDO came into existence on 1st January, 1958 with the amalgamation of Technical Development Establishment (TDEs) of Indian Army and Directorate of Technical Development and Production (DTDandP) with Defence Science Organisation (DSO). DRDO is headed by Scientific Advisor to *Raksha Mantri* (SA to RM), who is also the Secretary, Department of Defence RandD and Director General DRDO.

The Organisation has two tier structure, viz. the Corporate HQrs at New Delhi; and laboratories establishments, regional centres, field stations, etc. across the length and breadth of the country. DRDO Hqrs, under the Department of Defence Research and Development, is organized into two sets of Directorates i.e. the Corporate Directorates and the Technical Directorates. The laboratories, based on their core-competence, are classified into to nine clusters namely, Aeronautics, Armaments, Combat Vehicles and Engineering, Electronics and Computer Sciences, Materials, Missiles and Strategic Systems, Micro Electronics and Devices, Naval Research and Development, and Life Sciences. Each cluster has a technical directorate that renders support to the associated labs in terms of obtaining approvals of new projects from the Government, improving their infrastructure, creating new facilities, facilitate in monitoring and review of ongoing projects and also to coordinate with other laboratories and directorates. The Directorates act for the labs as 'single window' to the R&D Hq, and the Government of India. The five technical directorates of Industry Interface and Technology Management, Interaction with Services for Business, International Cooperation, Management further supports the labs in matters common to all labs. The Scientific Advisers to Chief of the Army Staff (COAS), Chief of the Air Staff (CAS), Chief of the Naval Staff (CNS) and Deputy Chief of Integrated Defence Staff also act as Technical Directors to render services to their respective Chiefs.

The Corporate Directorates namely, the Directorates of Budget Finance and Accounts, Extramural Research and Intellectual Property Rights, Human Resource Development, Management Services, Materials Management, Personnel, Planning and Coordination, Public Interface, Rajbhasha and OM, and Vigilance and Security, carry out planning and management of resources and facilitate the linkage with the other Government ministries and departments. They help laboratories in financial management, inducting manpower, training and career development, planning and coordination of ongoing projects, handling parliament Questions, image building activities such as disseminating information regarding the programs/ policies/ accomplishments of DRDO to media, academic and students community as well as the public at large etc. The Recruitment and Assessment Centre (RAC) undertakes fresh recruitment of scientists at various levels and conducts assessments for promotions of scientists on periodic basis. The Centre for Personnel Talent Management (CEPTAM) is responsible for induction and training of "Technical and Other Staff" of the organization.

DRDO has the following responsibilities :

- Design, development that lead to production, the state-of-art :Sensors, Weapon Systems, Platforms and allied equipment (Strategic systems, Tactical systems, Dual Use Technologies).
- Research in Life Sciences, to optimize combat effectiveness of soldiers and promote their well being, especially in harsh environments.
- Develop infrastructure and highly trained Manpower for strong defence technology base.

DRDO formulates and executes programs of scientific research, design and development in areas relevant to national security. It also functions as the nodal agency for the execution of major Defence related program with the national scientific institutions, PSUs and private agencies. It has led to the production of world class weapon systems and equipment in accordance with requirements laid down by the three Services. In addition DRDO assists the Services by rendering technical advice on matters such as formulation of Staff Requirements, evaluation of systems to be acquired, fire and explosive safety, mathematical/statistical analysis of operational problems etc.

The following facts give a glimpse of the structure and dimensions of DRDO :

• Total No. of Labs/Estts:	52
• Training Institutes:	CEPTAM (Delhi), DIAT (Pune), ITM, (Mussoorie)
• Integrated Test Ranges:	2
• Total strength (as on 01 July 2010)	28199
• Scientists:	7782
• Technical Personnel:	10424
• Others:	9993
• Def. RandD Expenditure 2009-10	Rs 8476.98 crores
• Def. RandD Budget 2010-11	Rs 9808.72 crores

In terms of tangible outputs, DRDO has developed wide range of strategic and

Major contributions from each cluster of DRDO in terms of Products & Systems Developed/ Accepted/Inducted, Technologies, developed and infrastructures facilities established are delineated in the following table :

Cluster	Products & Systems Developed Accepted/ Inducted	Technologies Developed and Infrastructures Facilities established
Aeronautical Systems	<p>LCA (Tejas) the first indigenously designed developed and produced Light Combat Aircraft (LAC). Ten variants of Tejas have completed 1424 flights and is well progressing towards initial Operational Clearance (IOC) by Dec 2010 and Final Operational Clearance (FOC) by Dec 2012. In addition to this, as a strategy towards long-term self-reliance in Air-power, design development and production of its advanced version (LCA Mk-II) has also been undertaken. The first naval variant of LCA has rolled out. The other success stories are 'Lakshya'-the Pilotless Target Aircraft, 'Nishant'-Unmanned Aerial Vehicle, Electronic Warfare Suites, Radar Warning Receivers (RWR) including High Accuracy Direction Finder (HADDF), Mission Computers and avionics upgrade for several fighter aircraft. Missile Approach Warning System and Laser Warning System have been developed and have been fitted on various Military aircraft and helicopters. As a spin-off variants of Kaveri engine are being developed for propulsion of marine vessels and power generation.</p>	<p>A wide range of highly complex technologies have been mastered and massive infrastructure created in the process of development of LCA-Tejas, its sub-systems and the Gas Turbine Engine-Kaveri, Unstable Aerodynamics, Flight Control Laws for Unstable Configuration Aircraft, Fly-by-wire Digital Flight Control System. Open Architecture Mission Avionics, Advanced Composite Structures, Hardware and Software for Simulators.</p>
Armament Systems	<p>Large number of armaments designed and developed by DRDO have been inducted in the armed forces. Over a million pieces of 7.62 mm Ishapore Self-Loading Rifle (SLR) developed by DRDO were produced till replaced by 5.56mm INSAS (Indian Small Arms system) another DRDO product. INAS is available in fixed and foldable butt versions of Assault Rifle and LMG, all firing the same ammunition and having 70 per cent commonality of parts. Multi-Barrel Rocket System-Pinaka, FSAPDS ammunition, Influence Mines Mk-1, Modern Sub-machine carbine (MSMC), Multimode Grenade Under-Barrel Grenade Launcher, 84 mm light weight launcher, Bund blasting device, Instant fire detection and suppression for BMP-II, 303 inch and 7.62 mm non-lethal bullets Adrushya, an intelligent munition to immobilize contemporary battle tanks, warheads for Prithvi, Trishul and Akash</p>	<p>Highly advanced technologies associated with Rocket Motors; Composite Propellants; Prefragmented, Incendiary and Bomblet Warheads; Electric and Electro-hydraulic Launcher, Explosive Reactive Armour (ERA), Pressure casting, Ribbon casting.</p>

	Missiles, prefragmented bombs for Indian Air Force etc. are examples of wide range of products.	
Combat Vehicle and Engineering	Over 80 Main Battle Tank-Arjun including 45 for the 1 st Arjun Armoured Regiment (45 tanks) and 649 Combat Improved Ajeya Tanks equipped with Explosive Reactive Armour (ERA), Global Positioning System (GPS), Integrated Fire Detection and Suppression System (IFDSS) and reconfigured Smoke Grenade Discharger (SGD) have been produced. Other major achievements are BHIM-76 Self Propelled 155 mm gun, Ex-tank-a combination of T-72 (Ajeya) Chassis and the most advanced MBT Arjun Weapon System, Bridge Layer Tank Arjun (capability to convert Arjun Tank to BLT within few hours), Bridge Layer Tank T-72 SARVATRA mobile bridge laying system (up to 75m within 100 minutes), SAKAV 46 m single span bridge system, MLC70 and MLC 40 Modular Bridges, Carrier Command Post Tracked, BMP-II, Armoured Amphibious Dozer, Armoured Engineering Reconnaissance Vehicle, Hydro-Pneumatic Suspension for Armoured Vehicles, Mobile Camouflage System (integrated in MBT Arjun), NBC protected Integrated Field Shelter, Remotely Operated Vehicle (Daksh) a robotic vehicle capable of remotely handling IED, Riot Control Vehicle, Unmanned Ground Vehicle (UGV), Trackway Expedient Mat Ground Surfacing, Armoured Ambulance BMP-II, Carrier Mortar Tracked on BMP-II, Containerized Operation Theatre Complex on wheels, Ground Support Vehicles for various indigenous strategic and tactical missiles, Nishant launcher, Counter Mine Flail (CMF) on T-72 Tank, Snow galleries, Micro-pile foundation for the effective transfer of snow pressure.	<p>Engine Test Facility, Transmission Test Facility, Fuel Injection Pump Test Rig, Variable Speed Drive Test Facility, Road Wheel Test Rig, Air Cleaner Test Rig, Suspension Test Facility, Hydraulic Test Bench, Universal Gear Tester, Ultrasonic Flaw Detector, Test Facilities for Aircraft Gearbox, Environmental Test Facilities consisting of Low temperature chamber, Driving rain chamber, Water immersion chamber, Dust chamber, Mould growth chamber, Salt spray chamber, Shock test machine and Bump test machine, Test Track Facility, Dry heat chamber and Dump heat for evaluation of structural integrity and performance of electronic and electrical equipment. Rapid prototyping and Prototype manufacturing facilities.</p> <p>A National Centre for Automotive Testing (NCAT) at VRDE equipped with state of the art infrastructure for testing and certification of defence as well as civil vehicles. Automotive Electro-magnetic Compatibility (EMC) test facility-one of the biggest in the world has been recently added.</p>
Electronic and Computer Systems	Artillery Combat command Control System-ACCCS. Indian Doppler Radar INDRA-I and II. INDRA-I and II. Rajendra - multifunction phased array radar. Super Vision Maritime Patrol Radar (SV-2000 MPAR). Avalanche Victim Detector (AVD), Battle Field Surveillance Radar-BFSR, a man-portable, battlefield and perimeter surveillance radar has been produced in large numbers. Electronic Warfare systems SAMUKTA and SANGRAHA for Army and Navy 3D-CAR (Central Acquisition Radar) medium range Early Warning Sensor - Revathi for Navy. Weapon Locating Radar. EON 51-Electro-optic Fire Control System. Briefcase SATCOM Terminal. Sectel (Secure Telephone). Sujav - a compact communication electronic warfare suit.	Technologies for achieving High Accuracy Direction Finding; High Power Jamming; Voice Recognition and Voice Print Analysis; Data/image Fusion, Jam-Resistant Data Links; Satellite Communication, Secrecy Systems, Multifunction electronic scanning radars, Parallel processing; I-u CMOS Fabrication Technology; GsAs Crystal Growth Facility; Molecular Beam Epitaxy System; Ion - Implantation system; Electron Beam Micro Lithography system; MOCVD system; Mask Fabrication Facility; Fab line for fabrication of MMIC UHV Processing Stations, Precision. Machining Facilities'; Turning (SPDT) Micro-

Matching Facility; Integrated Weapon System Simulation. Eye Safe Lasers. Laser Designator. PRF Code Recognition Device for decoding the PRF codes of laser target designators. Laser Warning Sensor Palmtop Green Microchip Laser Module. Passive Q-Switching. EOCM-Class Laser System for both anti-sensor as well as dazzling applications with an operational range of 2.5 km. 6.5 KW pulsed X-band and 10kW pulsed Ku band Coupled-Cavities TWT for airborne radars, S-band 130 KW (pulsed) Coupled-cavity TWT.

matching Facility. Single Point Diamond Turning (SPDT) Micro-machining Facility.

Life Sciences Life Support System for Army, Navy and Air Force Personnel. Combat Free Fall system capable to withstand the harsh conditions of free fall from 30,000 ft. NBC Canister. Water Poison Detection Kit. Portable Decontamination Apparatus. NBC Filters/ Ventilation systems. CW Type A/B Decontamination kit/Solution. Herbal Anti oxidant supplement. High Altitude adapted and fast growing Broiler Sheep. Bio diesel production. Cold tolerant hybrid vegetables. Genetically engineered cold tolerant hybrid vegetables. Genetically engineered cold tolerant vegetables. Hyperbaric oxygen therapy Chamber (Samudrasuta). One man High Altitude Pulmonary Oedema (HAPO) chamber. Heating Gloves and Socks for extreme cold conditions. Self-contained self-heating system to warm Ready - to eat packed foods at 65°C. Long shelf life ready to eat packaged food. Bio-digester for treatment of human waste for extreme cold-also being introduced in Indian Railway Coaches to avoid soiling of tracks. Multi-Insect Repellent DEPA. Computerized Pilot Selection System (CPSS). NBC and high altitude medical products, molecular imaging drugs and enhancers for Armed Forces, Advanced H1N1 kit for detection of swine flu.

Life Support Technologies. NBC Defence Technologies. Military nutrition - (fresh and processed foods technologies); Technologies for growing fruits and vegetables in extreme climates including high altitude cold deserts; Military Psychology and Personnel Selection. Man-Machine interface. Technology for removal of fluoride from water. Technology for De-Arsenification of water. Technology for removal of iron from water. Technology for storage of potatoes under extreme cold.

Materials AB Class Steel for Naval Applications, Titanium Sponge. High Temperature Titanium Alloys for Aerospace applications. NBC Recce Vehicle. NBC Protective clothing/Permeable Suites, NBC water purification system. Camouflage Pattern Generation Software. Synthetic Camouflage Net. Mobile medical post for Navy. Extreme cold weather Clothing systems. Blast Protection Suits. Synthetic Life Jacket. Anti Riot Polycarbonate Shield. Anti Riot

Technologies related to Composite Armor, Special Steels for the Navy, Cast Airfoils for Gas Turbines, Titanium Alloys, Rare Earth Metal-based High Energy Magnets. Armour for Fighting Vehicles, NBC Protection, Camouflage and Stealth, Desert Systems and Radition Instrumentation, Preparation of highly luminescent, multi-color emitting doped semiconducting nanocrystals Large size plastic scintillator rods for nuclear installations.

	<p>Helmet. Brake pads for Aircraft. Heavy alloy Armour Penetrator Rods. Jackal Armour. Kanchan Armour. Hydraulic Pipeline for Submarine Applications. Investment Casting of turbine components etc. Light weight composite armour for Mi-17-IV helicopter, Jet Fuel Stator castings for TEJAS, Energy efficient Special Phase Change Materials for temperature moderation.</p>	
<p>Missile and Strategic Systems:</p>	<p>Surface-to-surface strategic missile systems Agni I (700 km) Agni-II (2000km) and Agni III (3000 km). Prithvi series of surface-to-surface missiles. These nuclear capable platforms provide effective deterrence and credible second strike capability. BrahMos Supersonic Cruise Missiles for Army and Navy Brahmos is the only Supersonic cruise missile in the world. Dhanush-ship launched SS missile. Akash - multi-directional, multi-target SAM area defence weapon system. Nag - 3rd generation anti tank missile. Air Defence System against ballistic missiles of up to 2000 km class, for both exo-atmospheric (80 km altitude) and endo-atmospheric (15 km altitude) interception, RINS-Ring Laser Gyro based INS-GPS-Glonass for long range missiles and Aircraft. Millimeter Wave Seeker. MINGS-MEMS based Hybrid Navigation System. Computerized war games for Army and Air force.</p>	<p>Technologies for indigenous development, testing and production of Fiber Optics Gyro, Ring Laser Gyro, Accelerometers, Inertial/Autonomous Navigation Systems, MEMS and MEMS based sensors, Directional warheads, Direct Action Trajectory and Altitude Control System, Long range Solid Rocket Motors, Smokeless Propellant, Composite Rocket Motor casings, Carbon Composite Re-entry Vehicles, Composite Radomes, Seals and jet vanes for under water Launch system, Pro-fragmented and Submunition Warheads. Technologies for Command Guidance. Ram Rocket Propulsion, Multi Target Engagements, Twin-engine Liquid Propulsion Stabilisation of Launch Platform for Moving Ship.</p> <p>Multi-band Radar Seeker Test Facility. Electro-magnetic Pulse facility, Electro-hydraulic servo valve Limited Production facility. Solid Propellant Processing Facility.</p>
<p>Naval Systems</p>	<p>Ship-borne sonar HUMSA. Air Borne dunking sonar MIHIR. Submarine-sonar USHUS. Torpedo Advanced Light Tal. Torpedoes-Fire Control System and Advanced Experimental. Advanced Panoramic Sonar Hull mounted (APSOH) PACHENDRIYA - integrated submarine sonar and tactical fire control system. Underwater Telephone (UWT) TADPOLE sonobuoy high altitude deployable sonar. Auto-controlled Carbon Dioxide Control System. Impressed Current Cathodic Protection System for Ship hull. Indian Activated Aluminum Galvanic Sacrificial alloy system. Poly-LIST Dockblock- a substitute for teak wood used for dry docking of ships. Heavy duty non-skid paint. 250 Kw Silver Oxide-Zinc Battery. IR Suppression System For Naval Platforms, Underwater Acoustic Communication System, Anti-torpedo decoy system, Fuel cell based power generation system, Fibre optic biosensors for water borne pathogens.</p>	<p>Sonar Technology Homing Technology Pumpjet. Propulsion. Signal Processing for Target Classification.</p> <p>The floating laboratory - INS Sagardhwani, Underwater Acoustics Research Facility. Hydrodynamic Test Facilities. High Speed Towing Tank (HSTT). Cavitation Tunnel. Wind Tunnel. Acoustic. Shock, Noise and Vibration Test Facilities. Under Water. Ranges. Torpedo Engineering Centre. Electrical Propulsion Test Centre. Materials and Acoustic Simulated Test (MATS) Facility. Cluster Computing Facility to provide system level simulation of sonar systems-DARPAN. Prototype Manufacturing Facility.</p> <p>Underwater paint system for application under immersed condition, CO₂ curtailment system for submarines.</p>

Micro Electronic & Devices	Microwave power modules, High Power Amplifiers, Transmitters for Electronic warfare, Cathodes, Vacuum micro-electronic devices, High power microwave sources and diagnostics, Subsystems for distributed electronics of Heavy weight torpedo.	High performance computing center (CHITRA) established. Secure and trusted computing and communication solutions for high assurance applications.
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tactical weapon systems and complex technologies associated with such systems. The production value of major DRDO systems inducted into Services during the last decade stands at over ₹ 70,000 crores with a modest RandD investment of about ₹ 3000 crores per year. However, the production value of the DRDO products is by no means the only measure of impact of these developments on the nation's defence capabilities. Many of these systems could not be imported or developed jointly with any other country in the era of embargoes and technology denials. The developed countries with advanced militarily technologies offer licensed production of those systems that are obsolete for them, with barely any technology transfer. Successful indigenous development and production of strategic systems and platforms such as Agni and Prithvi series of missiles, nuclear powered submarine-Arihant, light combat aircraft-Tejas etc. have given quantum jump to India's military might, generating effective deterrence and providing crucial leverage and marking India's entry into the elite club of countries possessing such technologies.

The most significant contribution of DRDO is the creation of a system conducive to development of cutting edge technologies by developing partnerships with academic/research institutions and with industries; creating exhaustive infrastructure, both, within the organisation and the partners entities, creating centres of excellence and establishing high quality manpower resource. DRDO today possesses a wide spectrum of Core Competencies which include Systems Design and Integration of Complex Sensors, Weapon Systems and Platforms; Complex High-end Software Packages; Functional Materials; Test and Evaluation; Technology Transfer and Absorption etc. In addition, expertise and infrastructure have been built up for basic/applied research in relevant areas, Quality Assurance and Safety, Project and Technology Management. The Infrastructural facilities created by DRDO are national assets and include Integrated Instrumented flight test range. Structural Dynamics and Vibration Test facility for aircraft, EW Test ranges, Propulsion and Ballistics Test facilities, EMI/EMC Test Rigs, EMP/Lightning, Antennae Test Range, Instrumentation Ship, Acoustic Research Ship, Underwater Weapon Test Ranges, Test Tracks for land systems etc. The other tangible benefits are the capability in a wide range of militarily critical and advanced technologies, efforts in ensuring continuity of supply of components, spares in face of changing international scenario, developing a self reliant Defence RandD base and spin-offs into civil industry.

The major partners in our nation building endeavors include the three arms of the Services as the prime users, Defence PSUs, Private Industries, International Collaborators and Academic/Researchers. Inter-Governmental Agreements/MOUs on Defence Cooperation exist with about 35 countries. DRDO has taken a new initiative with FICCI for commercialisation of DRDO's "non-security sensitive technologies" through ATAC (Accelerated Technology Assessment and Commercialisation). Training in specialised defence technology-related areas is offered to many developing

countries for their scientific/engineering personnel at the Defence Institute of Advanced Technology (A Deemed University), Pune. The DRDO has been actively promoting participation of Indian Industries in defence production and this has resulted in a significant growth of industries both in PSUs and private sector. DRDO has strong interface with the user Services through the Integrated Defence Staff and Service HQrs. Studies of SandT road maps of DRDO and the three Services are carried out to identify the products and critical technologies that are required to be established within the country. The technologies are categorised into "Buy", "Make" and "Buy and Make" categories and strategies evolved to establish them in the country by one of the following routes, namely, "In house development in DRDO", "Acquisition of Matured Technologies through offset obligations". DRDO has Foreign Collaborations, MOU/Agreements with 33 countries in area of defence technologies. The major foreign partners are - Russia, USA, France, Israel, Germany, UK, Singapore, Kazakhstan and Kyrgyzstan. DRDO also has Joint Working Groups for collaboration with major foreign partners. Three such groups are Indo-US Joint Technology Group, Indo-Russian RandD Sub Group and Indo-Israel Managing Committee.

The Defence RandD expenditure of ₹ 8,476.98 crore during the FY 2009-10 was just 5.98 per cent of nation's total Defence Services expenditure of ₹ 1,14,812.11 crore. Nearly three-fourth of the total expenditure was on activities directly related to RandD and creation of infrastructure facilities for such activities. The Defence RandD Budget for the current (2010-11) FY is ₹ 9,808.72 crore being 6.66 per cent of the total Defence Services budget of ₹ 1,47,344 crore. The strategic systems have been on priority, taking significant share of the Defence RandD budget.

The DRDO, being a knowledge based organisation, has been generating and protecting the intellectual property rights as part of its culture. DRDO has taken more than 465 Indian and 48 foreign patents/designs/copyrights till date, while another 576 Indian and 112 foreign patents are under prosecution. A good number of national and international papers with impact factor are being published by our scientists. The number of PhDs in DRDO under the DRDS category alone today is around 81.8. It is a true 'knowledge bank' for the nation and owner of a vast intellectual property. DRDO offers to its employees adequate professional ambiance in terms of flexibility of operation, autonomy, financial and managerial responsibilities. Advanced training, career and self-development needs of the scientists are also given due attention. The DRDO employees routinely perform duties that are unique in nature. Several projects in DRDO are mission mode and field oriented. In addition to carrying out field trials for several months at a stretch under harsh environments like deserts and high altitude cold areas, the DRDO scientists are also often posted at Hard Stations like Leh, Tezpur, etc. Further, the scientists are also expected to carry out extensive airborne and ship borne trials as part of their project responsibilities.

The DRDO has attracted young students to take up defence SandT as career option. Competent manpower is inducted into DRDO through several schemes such as All India DRDO Scientists Entry (SET), Annual Campus Talent Search, Selection as Scientist from candidates with fresh PhD under the ROSSA scheme, Online selection for NRIs and selection of scientists under Lateral Entry Scheme.

"Balasya mulam vigyanam" i.e. "The source of strength is Science" is the tag line of DRDO. It is Science that drives the nation in war and peace. DRDO has firm

determination to make the nation strong and self reliant in terms of Science and Technology especially in field of military technologies.

RESETTLEMENT OF EX-SERVICEMEN

The Department of Ex-servicemen Welfare (ESW) formulates various policies and programmes for the welfare and resettlement of Ex-servicemen (ESM) in the country. The Department has two Divisions viz., the Resettlement Division and the Pension Division and has 3 attached offices namely Secretariat of Kendriya Sainik Board (KSB), Directorate General (Resettlement) (DGR) and Ex-servicemen Contributory Health Scheme (ECHS) Organisation. While the KSB is responsible for the welfare of Ex-servicemen and their dependents and also for administration of welfare funds, the office of Directorate General of Resettlement implements various policies/schemes/programmes of the Department for ESM like pre and post retirement training, re-employment, self employment etc.

The main thrust of the Department of Ex-servicemen Welfare (DESW) is on resettlement/rehabilitation of ESM and their dependents. Nearly 60,000 armed forces personnel retire or are released from active service every year, most of them being in the comparatively younger age bracket of 35 to 45 years. These personnel need to be utilized for nation building. This is sought to be achieved through the following modalities:- (a) imparting necessary training, to prepare them to take on the new assignments/jobs; (b) providing employment opportunities in government/quasi government/public sector organizations; (c) Pro-active action, to facilitate reemployment of the ESM in the Corporate Sector; (d) Providing jobs through schemes for self-employment; and (e) Assisting in entrepreneurial ventures.

Officers' Training : The Directorate General (Resettlement) organizes Resettlement Training Programmes based on short courses of one to three months duration and a few courses up to six months duration.

Junior Commissioned Officers (JCOs)/Other Ranks (ORs) Equivalent Training: Resettlement Training Programmes for Personnel Below Officer Rank (PBORs) are conducted in diversified fields for a duration of up to six to nine months in government, semi-government and private institutes spread all over the country.

Ex-Servicemen (ESM) Training : The scheme is primarily meant for those ESM who could not avail the facility of resettlement training while in service. It is also extended to the widow/one dependent of ESM.

RE-EMPLOYMENT OF EX-SERVICEMEN

The Central and State Governments provide a number of concessions to ex-servicemen for their reemployment in Central/State Government Departments. These include reservation of posts/relaxation in age and educational qualifications, exemption from payment of application/examination fees and priority in employment to the disabled ESM and dependants of deceased service personnel on compassionate grounds.

Reservation for Ex-Servicemen in Government Jobs : The Central Government has kept the following reservation in services for ESM (a) 10 per cent in Group 'C' posts, 20 per cent in Group 'D' posts; (b) 14.5 per cent reservation in Group 'C' and 24.5 per cent in Group 'D' posts in PSUs and Nationalized Banks' (c) 10 per cent posts of Assistant Commandants in paramilitary forces; and (d) 100 per cent in Defence Security Corps.

PLACEMENT

Security Agencies : The Directorate General (Resettlement) empanels/sponsors ESM run private security agencies, companies and corporations for providing security guards to various Central Public Sector Undertakings (PSUs) and industries in the private sector. The scheme offers good self-employment opportunities to retired officers and adequate employment opportunities to retired PBOR, in a field, where they have sufficient expertise. The number of ESM employed during 2009 is 37689.

CISF in coordination with DGR carried out recruitment drive for ESM, as a result of which 895 ESMs (PBOR) were selected in the rank of Sub Inspector, Head Constable and Constable, Similarly, Delhi Police has also selected 45 ESM (PBOR).

SCHEMES FOR SELF-EMPLOYMENT

The Government has formulated several Self-employment ventures for rehabilitation and resettlement of Ex-servicemen and their families. The details of some schemes are given in the following paragraphs.

Allotment of Army Surplus Vehicles : Ex-Servicemen and widows of defence personnel, who died while in service, are eligible to apply for allotment of Army Surplus Class V-B Vehicles.

Coal Tipper Scheme : This welfare scheme for widows/disabled soldiers is linked with the Coal Transportation Scheme. Up to December 2009, 78 widows/ disabled soldiers benefited through this scheme.

Allotment of Oil Product Agency : Ministry of Petroleum and Natural Gas has reserved 8 per cent of Oil Product Agencies i.e. LPG Distributorship, Petrol Pumps and Superior Kerosene Oil Distributorship etc. for the defence category applicants who comprise of war-time/peace-time widows and disabled soldiers.

Mother Dairy Milk Booths and Fruit and Vegetable (Safal) shops : This is a time tested well paying self employment scheme for ESM PBOR. In consultation with the Mother Dairy, the scheme is now being extended to the cities of NCR viz Gurgaon, Noida and Greater Noida.

PM's Scholarship Scheme : The aim of PM Scholarship Scheme is to encourage the wards of widows and ex-servicemen to take up higher technical and professional education. Under the scheme the amount of scholarships for boys is ₹ 1250/- per month and for girls ₹ 1500/- per month.

10 Education

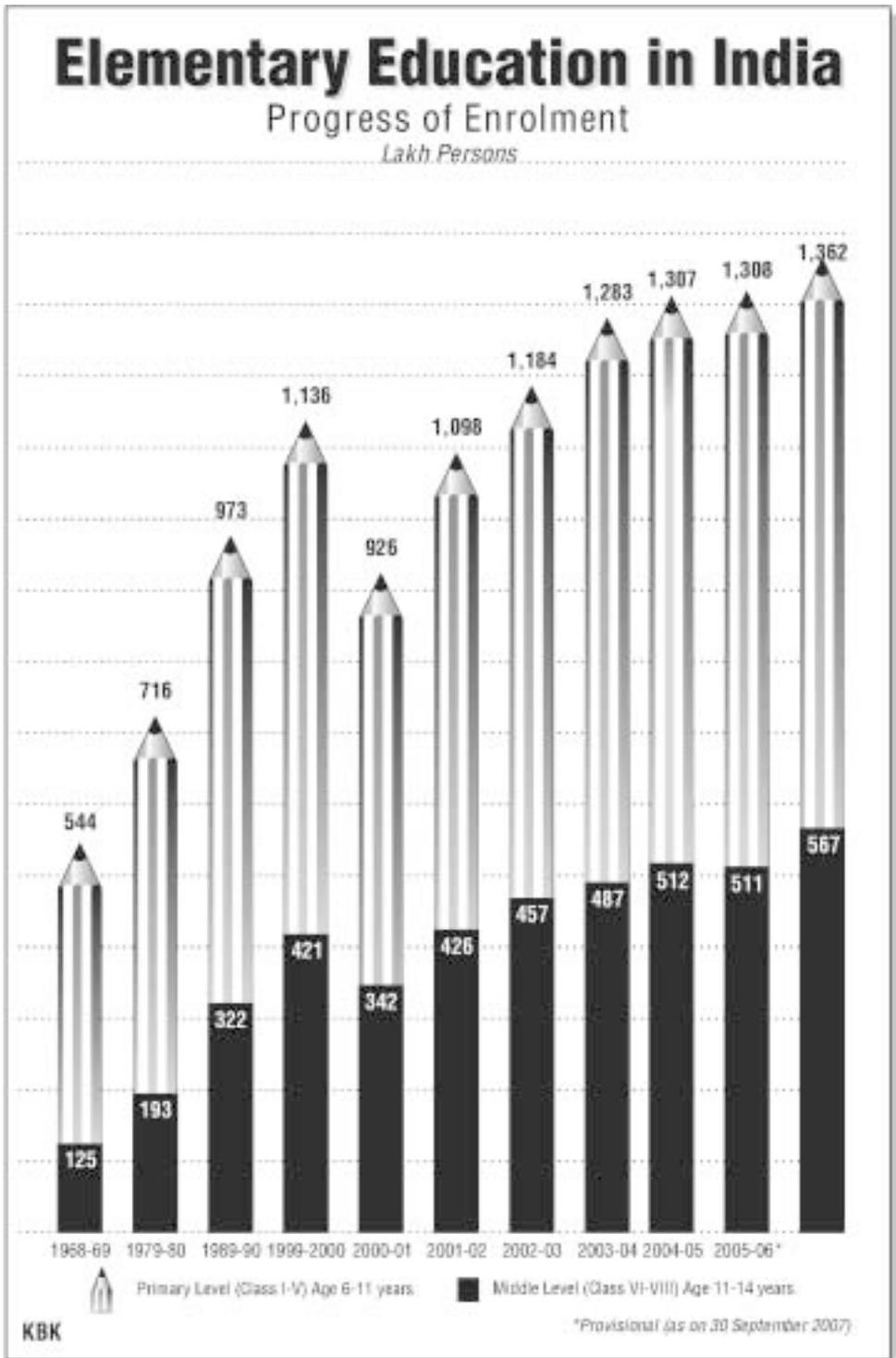
Education is not only an instrument of enhancing efficiency but also an effective tool of augmenting and widening democratic participation and upgrading the overall quality of individual and society. India has a vast population and to capture the potential demographic dividend, to remove the acute regional, social and gender imbalances, the Government is committed to make concerted efforts for improving the quality of education as mere quantitative expansion will not deliver the desired results in view of fast changing domestic and global scenario.

Before 1976, education was the exclusive responsibility of the States. The Constitutional Amendment of 1976, which included education in the Concurrent List, was a far-reaching step. The substantive, financial and administrative implication required a new sharing of responsibility between the Union Government and the States. While the role and responsibility of the States in education remained largely unchanged, the Union Government accepted a larger responsibility of reinforcing the national and integrated character of education, maintaining quality and standard including those of the teaching profession at all levels, and the study and monitoring of the educational requirements of the country.

The Central Government continues to play a leading role in the evolution and monitoring of educational policies and programmes, the most notable of which are the National Policy on Education (NPE), 1986 and the Programme of Action (POA), 1986 as updated in 1992. The modified policy envisages a National System of education to bring about uniformity in education, making adult education programmes a mass movement, providing universal access, retention and quality in elementary education, special emphasis on education of girls, establishment of pace-setting schools like *Navodaya Vidyalayas* in each district, vocationalisation of secondary education, synthesis of knowledge and inter-disciplinary research in higher education, starting more Open Universities in the States, strengthening of the All India Council of Technical Education, encouraging sports, physical education, Yoga and adoption of an effective evaluation method, etc. Besides, a decentralised management structure had also been suggested to ensure popular participation in education. The POA lays down a detailed strategy for the implementation of the various policy parameters by the implementing agencies.

The National System of Education as envisaged in the NPE is based on a national curricular framework, which envisages a common core along with other flexible and region-specific components. While the policy stresses widening of opportunities for the people, it calls for consolidation of the existing system of higher and technical education. It also emphasises the need for a much higher level of investment in education of at least six per cent of the national income.

The Government has taken/proposed a number of major initiatives during the 11th Five Year Plan. Some of the new initiatives in the School and literacy sector and Higher and Technical Education sector include: Right of Children to free and Compulsory Education Bill, Launching of Saakshal Bharat, ICT in Secondary Schools and in open/distance schooling, Evolving a National Curriculum Framework for Teacher Education, Examination reform in accordance with NCF-2005, introducing a System for replacement of marks by grades at the Secondary stage in schools affiliated



to CBSE, Recommendations of Yash Pal Committee and National Knowledge Commission, Establishment of 14 Innovation Universities aiming at World Class Standards, Setting up 10 new National Institutes of Technology, Launching of new Scheme of Interest subsidy on education loans taken for professional courses by the Economically Weaker Students, Scheme of setting up of 374 Model degree colleges in districts having gross enrolment ratio for higher education less than National GER, 150 women's hostels in higher educational institutions located in districts with significant population of weaker sections and minorities, Academic Reforms (Semester system, choice based credit system, regular revision of syllabi, impetus to research), etc.

In line with the commitment of augmenting resources for education, the allocation for education has over the years increased significantly. The Plan outlay on education was ₹ 151 crore in the First Five Year Plan. The 11th Five Year Plan (2007-12) is ₹ 2,69,873 crore. Of which ₹ 84,943 crore is for the Department of Higher Education and ₹ 1,84,930 crore is for the Department of School Education and Literacy. The approved Annual Plan Outlay (2009-10) is ₹ 9,600 crore for the Department of Higher Education and ₹ 26,800 crore is for the Department of School Education and Literacy.

ELEMENTARY EDUCATION

SARVA SHIKSHA ABHIYAN

Launched in 2001 Sarva Shiksha Abhiyan (SSA) is one of India's major flagship programmes for universalisation of elementary education. Its overall goals include universal access and retention, bridging of gender and social category gaps in elementary education, and achieving significant enhancement in learning levels of children.

SSA is implemented in partnership with the State Governments and reaches out to 19.4 crore children in 12.3 lakh habitations across the country.

SSA Goals are :

- a. Enrolment of all children in school, Education Guarantee Centres, Alternative school, 'Back-to-School' camp by 2005;
- b. Retention of all children till the upper primary stage by 2010.
- c. bridging of gender and social category gaps in enrolment, retention and learning; and
- d. Ensuring that there is significant enhancement in the learning achievement levels of children at the primary and upper primary stage.

Since inception, SSA has provided support for: Opening 3,02,872 new schools; Construction of 2,42,608 school buildings; Construction of 10,77,729 additional classrooms in existing schools ; Provision of drinking water facilities in 1,92,486 schools; Provision of toilets in 3,19,607 schools; appointment of 10.30 lakh teachers; Textbook support for approximately 10 crore children annually; Teacher training support for approximately 35 lakh teachers; and Establishing 2573 KGBVs in which 2,38,600 girls are enrolled, with priority to girls from SC, ST, Muslim, and BPL groups.

SSA has an annual outlay of ₹ 15,000 crore for the year 2010-11. Under SSA India has not only been able to improve access to 99 per cent of primary level but has also been able to reduce out of school children to 3-4 per cent of the age cohort of 6-14 years. Under this programme, special focus is on girls, children belonging to SC/ST Communities, other weaker Sections, Minorities and urban deprived children.

EDUCATION GUARANTEE SCHEME AND ALTERNATIVE AND INNOVATIVE EDUCATION

Education Guarantee Scheme and Alternative and Innovative Education (EGS and AIE) is an important component of Sarva Shiksha Abhiyan (SSA) to bring out-of-school children in the fold of Elementary Education. The scheme envisages that child-wise planning is undertaken for each out-of-school child.

Under EGS, educational facilities are set up in habitations that do not have a primary School within a distance of 1 km. Any habitation with 25 out-of-school children in the 6-14 age group (15 in the case of hilly and desert areas and tribal hamlets) is eligible to have an EGS Centre. It is a transitory facility till Primary School replaces it within a period of two years.

Alternative Education interventions for specific categories of very deprived children e.g., child labour, street children, migrating children, working children, children living in difficult circumstances and older children in the 9+ age group especially adolescent girls are being supported under EGS and AIE all over the country.

A sizeable number of out-of-school children are in the habitations where schooling facility is available but these children either did not join the school or dropped out before completing their schooling. These children may not fit into the rigid formal system. To bring such children back to school, back to school camp and Bridge Courses strategies have been implemented. Bridge courses and Back to school camps can be residential or non-residential depending upon the need of children.

The NPEGEL Scheme

NPEGEL Scheme is a holistic effort to address obstacles to girl's education at the micro level through flexible, decentralized processes and decision making. It is implemented in educationally backward blocks and addresses the needs of girls who are 'in' as well as 'out' of school. It also reaches out to girls who are enrolled in school, but do not attend school regularly.

Children become vulnerable to leaving school when they are not able to cope with the pace of learning in the class or feel neglected by teachers/peers in class. The scheme emphasizes the responsibility of teachers to recognize such girls and pay special attention to bring them out of their state of vulnerability and prevent them from dropping out.

The scheme works through village level women's and community groups to follow up girls' enrolment, attendance and achievement. The community is engaged in recommending village specific action based on their understanding of local issues.

Kasturba Gandhi Balika Vidyalaya Scheme

Kasturba Gandhi Balika Vidyalaya Scheme provides for setting up of residential upper primary schools for girls of SC, ST, OBC and Muslim communities. This scheme targets areas of scattered habitations, where schools are at great distances and are challenge to the security of girls. This often compels girls to discontinue their education. KGVB addresses this through setting up residential schools in the block itself.

The Scheme provides for a minimum reservation of 75 per cent seats for girls from SC/ST/OBC and minorities communities and 25 per cent to girls from families that are below the poverty line.

MID-DAY MEAL SCHEME

With a view to enhancing enrollment, retention and attendance and simultaneously improving nutritional levels among children, the National Programme of Nutritional Support to Primary Education (NP-NSPE) was launched as a Centrally Sponsored Scheme on 15 August 1995, initially in 2408 blocks in the country. By the year 1997-98 the NP-NSPE was introduced in all blocks of the country. It was further extended in 2002 to cover not only children in classes I-V of government, government aided and local body schools, but also children studying in EGS and AIE centres. Central Assistance under the scheme consisted of free supply of food grains @ 100 grams per child per school day, and subsidy for transportation of food grains up to a maximum of Rs 50 per quintal.

In September 2004 the scheme was revised to provide cooked mid day meal with 300 calories and 8-12 grams of protein to all children studying in classes I-V in Government and aided schools and EGS/AIE centres. In addition to free supply of food grains, the revised scheme provided Central Assistance for (a) Cooking cost @ ₹ 1 per child per school day, (b) Transport subsidy was raised from the earlier maximum of ₹ 50 per quintal to ₹ 100 per quintal for special category states, and ₹ 75 per quintal for other states, (c) Management, monitoring and evaluation costs @ 2 per cent of the cost of foodgrains, transport subsidy and cooking assistance, and (d) Provision of mid day meal during summer vacation in drought affected areas.

In July 2006 the scheme was further revised to enhance the cooking cost to ₹ 1.80 per child / school day for States in the North Eastern Region, provided the NER States contribute minimum ₹ 0.20 per child/school day, and ₹ 1.50 per child / school day for other States and UTs, provided these States and UTs contribute minimum ₹ 0.50 per child/school day. It has also revised the nutritional norm from existing 300 calories and 8-12 gram protein to minimum 450 Calories and 12 gram of protein. Central Government has also decided to provide assistance to construct kitchen-cum-store, in a phased manner, utilizing the fund of the Scheme itself where convergence with other programme as stated in the MDM guidelines 2004, is not feasible. Assistance for cooking / kitchen devices (gas stove with connection, stainless steel water storage tank, cooking and serving utensils etc.) in a phased manner @ ₹ 5,000 per school.

In September 2007, the name of the Scheme was changed from 'National Programme of Nutritional Support to Primary Education' to 'National Programme of Mid Day Meal in Schools' and the Scheme was extended to cover children of upper primary classes (i.e. class VI to VIII) studying in 3,479 Educationally Backward Blocks (EBBs) w.e.f. 1 October 2007. It was decided to provide food grains @ 150 gram per child per school day for upper primary stage. The calorific value of the Mid Day Meal for upper primary stage was fixed at 700 Calories and 20 grams of protein. The existing system of reimbursement of transport subsidy to States / UTs was modified to grant-in-aid system like other components of Central assistance under the Scheme. It was also decided to increase the Central assistance for cooking cost by 5 per cent every 2 years beginning 2008-09.

The Scheme was further revised in **April 2008** to cover all upper primary schools of country and also to include recognized Madrasas / Maqtabas supported under SSA as Government Aided schools as well as those Madrasas / Maqtabas which may not be registered or recognized but supported under SSA as EGS / AIE intervention in coordination with State Project Directors of SSA.

The Scheme was again revised in November 2009.

The objective of the mid day meal scheme is to address two of the pressing problems for majority of children in India, viz. hunger and education by:

- (i) Improving the nutritional status of children in classes I-VIII in Government, Local Body and Government aided schools, and EGS and AIE centres.
- (ii) Encouraging poor children, belonging to disadvantaged sections, to attend school more regularly and help them concentrate on classroom activities.
- (iii) Providing nutritional support to children of primary stage in drought affected areas during summer vacation.

The National Programme of Mid Day Meal in Schools (NP-MDMS) presently covers all children studying in Classes I-VIII in Government, Government Aided and Local Body Schools, Education Guarantee Scheme (EGS) and Alternative and Innovative Education (AIE) centres including Madrasas and Maqtabs supported under SSA.

The Scheme has the following Components:

(i) Borne entirely by Central Government

- (a) Supply of free food grains @ 100 gms per child per school day for primary and @ 150 gms for upper primary stage from FCI godowns.
- (b) Assistance for transportation of foodgrains from FCI godowns to the schools.
- (c) For North Eastern States and Jammu & Kashmir, Himachal Pradesh and Uttarakhand at the rate prevalent under the public distribution system (w.e.f. 1 December 2009).
- (d) For all other states and UTs @ ₹ 75 per quintal.
- (e) Assistance for Monitoring Management & Evaluation, (MME) at the rate of 2 per cent of total cost of (a) food grains, (b) transport cost and (c) cooking cost.

(ii) Shared with the states /UTs.

- (a) Cooking cost ₹ 2.69 per child per day for primary classes and ₹ 4.03 per child per day for upper Primary Classes w.e.f. 1 April 2010.
- (b) Payment of honorarium of ₹ 1000 per month to cook-cum-helper.
- (c) Assistance for the cost of construction of kitchen cum store to be determined on the basis of plinth area norm and State Schedule of Rates.
- (d) The cooking cost, honorarium for cooks-cum-help and the cost of construction of kitchen-cum-stores will be shared between the Centre and the NER States on 90:10 basis and with other States/UTs on 75:25 basis.

Under the Mid-Day Meal Scheme, a total budget provision of ₹ 48,000.00 crore has been allocated by Planning commission during the 11th Five Year Plan. This includes both, the Gross Budgetary Support (GBS) as well as the contribution from the Prarambhik Shiksha Kosh (PSK).

To offset the rise in prices, the Government brought out following changes in the scheme in 2009.

- i) **Cooking cost** for primary and upper primary stage was enhanced to ₹ 2.50 per child for Primary and ₹ 3.75 per child for Upper Primary children for the balance period of financial year 2009-10 from 1 December 2009 and further enhanced by 7.5 per cent w.e.f. 1 April 2010. Accordingly, the share of the Centre and the minimum share of the State/UTs. with effect from 1 April 2010 is as under:

Stage	Total Cost per meal	Centre-State sharing			
		Non-NER States (75:25)		NER States (90:10)	
		Centre	State	Centre	State
Pry.	₹ 2.69	₹ 2.02	₹ 0.67	₹ 2.42	₹ 0.27
U. Pry.	₹ 4.03	₹ 3.02	₹ 1.01	₹ 3.63	₹ 0.40

Cooking cost includes costs of pulses, vegetables, cooking oil and condiments, fuel etc.

- ii) **Honorarium** of ₹ 1000 per month from 1 December 2009 to cook-cum-helper and engagement of one cook-cum-helper for schools upto 25 students, two cooks-cum-helpers for schools with 26 to 100 students and one additional cook-cum-helper for every addition of 100 students. The expenditure towards the honorarium of cook-cum-helper is shared between the Centre and the NER States on 90:10 basis.
- iii) Instead of a flat rate of ₹ 60,000 for construction of **kitchen-cum-store** per school across the country, the construction cost is to be determined on the basis of plinth area norms and State Schedule of Rate prevalent in the State/UT. The cost of construction of Kitchen-cum-stores is shared from 1 December 2009 between the centre and the NER States on 90:10 basis. 20 sq. mt. plinth area has been prescribed for construction of Kitchen-cum-Store in schools having upto 100 children. For every additional upto 100 children, additional 4 sq. mt. plinth area will be added. States/UTs have the flexibility to modify the slab of 100 children depending upon the local conditions.
- iv) **Transportation assistance** in the 11 Special Category States (viz. Assam, Arunachal Pradesh, Himachal Pradesh, Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Uttarakhand and Tripura) at par with the PDS rates prevalent in these States.

Monitoring Mechanism

The Department of School Education and Literacy, Ministry of Human Resource Development has prescribed a comprehensive and elaborate mechanism for monitoring and supervision of the Mid Day Meal Scheme. The monitoring mechanism includes the following :

Arrangements for local level monitoring

Representatives of Gram Panchayats/Gram Sabhas, members of VECs, PTAs, SDMCs as well as Mothers' Committees are required to monitor the (i) regularity and wholesomeness of the mid day meal served to children, (ii) cleanliness in cooking and serving of the mid day meal, (iii) timeliness in procurement of good quality ingredients, fuel, etc. (iv) implementation of varied menu and (v) social and gender equity. This is required to be done on a daily basis.

Display of Information under Right to Information Act

In order to ensure that there is transparency and accountability, all schools and centres where the programme is being implemented are required to display information *suo-moto*. This includes information on :

- i. Quality of foodgrains received, date of receipt.
- ii. Quantity of foodgrains utilized.
- iii. Other ingredients purchased, utilized
- iv. Number of children given mid day meal.
- v. Daily Menu
- vi. Roster of Community Members involved in the programme.

Inspections by State Government Officers

Officers of the State Government/UTs belonging to the Departments of Revenue, Rural Development, Education and other related sectors, such as Women and Child Development, Food, Health are also required to inspect schools and centres where the programme is being implemented. It has been recommended that 25 per cent of primary schools/EGS & AIE centres are visited every quarter.

Responsibility of Food Corporation of India (FCI)

The FCI is responsible for the continuous availability of adequate food grains in its Depots (and in Principal Distribution Centres in the case of North East Region). It allows lifting of food grains for any month/quarter up to one month in advance so that supply chain of food grains remains uninterrupted.

For the NP-NSPE, 2006, the FCI is mandated to issue foodgrains of best available quality, which will in any case be at least of Fair Average Quality (FAQ). The FCI appoints a Nodal Officer for each State to take care of various problems in supply of food grains under the MDM Programme. The payment of cost of food grains to the FCI has been decentralized to the district level.

The District Collector/CEO of Zila Panchayat ensures that food grains of at least FAQ are issued by FCI after joint inspection by a team consisting of FCI and the nominee of the Collector and/or Chief Executive Officer, District Panchayat, and confirmation by them that the grain conforms to at least FAQ norms.

MAHILA SAMAKHYA SCHEME

Pursuant to the objectives of the NPE, 1986, the Mahila Samakhya Scheme was started in 1989 to translate the goals enshrined in the NPE into a concrete programme for the education and empowerment of women in rural areas particularly those from socially and economically marginalized groups. The MS scheme recognizes the centrality of education in empowering women to achieve equality. The Mahila Sanghas or women's collectives at the village level provide the women a space to meet, reflect, ask questions and articulate their thoughts and needs and make informed choices.

The Mahila Sanghas through various programmes and awareness campaigns have brought about a change in the outlook of rural women and the effects can now be seen in various facets of life at home within the family, the community and at the block and panchayat levels. The programme has also focused on awareness of the need to educate the children, especially girls, to give the equal status and opportunities which has resulted in a direct impact on enrolment and retention of girls in schools.

The Mahila Samakhya Scheme is currently being implemented in ten States, viz., Andhra Pradesh, Assam, Bihar, Chattisgarh, Jharkhand, Karnataka, Kerala,

Gujarat, Uttar Pradesh and Uttarakhand spread over 102 districts and covering more than 21,000 villages. Currently, DFID (UK) is providing assistance of £ 35 million sterling to this programme on the basis of a 90:10 fund sharing pattern between DFID and Government of India for a seven year period 2007-14. The projected budgetary outlay for the 11th Plan is ₹ 210 crore.

TEACHER EDUCATION SCHEME

I. Centrally sponsored scheme of Teacher Education was launched in 1987-88 with, *inter alia*, the following components:

1. Establishment of District Institute of Education & Training (DIETs)-by upgradation of existing Elementary Teacher Education Institutions (ETEIs) wherever possible, and establishment of new DIET where necessary.
2. Upgradation of selected Secondary Teacher Education Institutions (STETIs) into :
 - (a) Colleges of Teacher Education (CTEs) and
 - (b) Institutes of Advanced Study in Education (IASEs).
3. Strengthening of State Council of Educational Research and Training (SCERTs).

II. The Scheme was revised under the 10th Plan in 2003 and the revised guidelines were issued in January 2004. The main objectives of the Teacher Education Scheme are as follows:

1. Speedy completion of DIET/CTE/IASE/SCERT projects sanctioned but not completed up to the end of the 9th Plan period.
2. Making DIETs, IASEs sanctioned (and SCERTs strengthened) upto the 9th Plan period, optimally functional and operational.
3. Sanction and implementation of fresh DIET/CTE/IASE/SCERT projects to the extent necessary.
4. Improvement in the quality of programmes to be undertaken by DIETs, etc. especially those of pre-service and in-service training, so as to enable them to effectively play their nodal role of improving quality of elementary and secondary education in their respective jurisdiction, as measured in terms of levels of learner achievements.

III. Criteria for setting up of DIETs/District Resource Centre (DRC) are :

1. One DIET for each district having a minimum of 2,500 teachers. If there is an existing Government ETEI in the district, it would be upgraded into a DIET. If no Government ETEI exists in the district, a new institution (DIET) will be established.
2. District Resource Centres in districts with less than 2,500 teachers. If a Government ETEI exists in the district, it would be upgraded into a DRC, otherwise, a new DRC would be established in which case it would not conduct pre-service course.
3. If in a district with more than 2,500 teachers, State Government wishes to establish a DRC in preference to a DIET, it would be able to do so.

IV. In order to make proposals for the 11th Plan for Teacher Education, a sub-group under the chairmanship of Director, NCERT was set up. Based on the recommendations of the sub-group, in addition to strengthening the existing

provisions of the scheme, certain new schemes are proposed to be incorporated during 11th Plan. Some of the recommendations of the Report are:

- Funding should have a 75:25 Centre-State sharing ratio (90:10 for North Eastern States).
- 10-12 per cent DIETs to be upgraded to College level.
- DIETs should have linkages with universities, colleges and well established private institutions.
- Establish a DIET in a block in 196 identified districts with minority/SC/ST concentration.
- 2-Year B.Ed Programme should be gradually promoted in the CTEs. Stipend may be provided to the trainee during internship with schools.
- Recruitment should focus on proper qualifications.
- Central funds should be routed directly to State Education Secretaries, then to the SCERTS for onward disbursement to the IASEs, CTEs and DIETs.

NATIONAL BAL BHAVAN

The National Bal Bhavan is an autonomous organisation fully funded by the Ministry of Human Resources Development, Department of School Education and Literacy. Since its inception in 1956, it is a creativity resource centre for children in the age group of 5-16 years. The Bal Bhavan as a movement has grown by leaps and bounds throughout the length and breadth of the country and today there are 124 State Bal Bhavans and 70 Bal Bhavan Kendras affiliated to National Bal Bhavan. Through affiliated Bal Bhavans and Bal Kendras, National Bal Bhavan reaches out to school drop-outs, children of socially and economically backward class, street children and also the special children. Several schools of Delhi have also taken up the membership of National Bal Bhavan and this joint and consolidated effort of non-formal institution has indeed made creative enhancement of children a grand success. The total membership has now reached to 7164.

National Bal Bhavan is engaged in pursuits for the integrated growth of the child by involving them in various activities in a tension free environment irrespective of their gender, caste, creed, colour etc. To mention a few, the activities are clay modelling, papier mache, music, dance, drama, painting, crafts, museum activities, photography, videography, indoor & outdoor games, home management, traditional art & craft, educational & innovative games/chess, science is fun etc. Some of the special attractions of the National Bal Bhavan are Mini Train, Mini Zoo, Fish Corner, Science Park, Funny Mirrors and Culture Craft Village. It has National Training Resource Centre (NTRC) within its premises which imparts training to teachers on diverse activities. The main aim and focus of this resource centre is to train the teachers in the all round growth and personality development of children as the teacher's community is well versed with the social, economical, emotional, intellectual and psychological needs of children. The workshop of NTRC also aims to make both teaching and learning a joyful experience for teachers and students respectively.

National Bal Bhavan has also launched a scheme to identify, honour and nurture the creative children of India irrespective of their socio-economic status. The rationale behind this scheme—'The Bal Shree Scheme'—is that creativity is a human potential that directly relates to self-expression and self-development. This scheme seeks to identify creative children within the age group of 5-16 years in four identified areas of

creativity, i.e. **creative art, creative performance, creative scientific innovations, and creative writing**. This scheme was put into effect in 1995 and since then children have been identified and honoured for their creative elegance in their concerned fields.

In addition National Bal Bhavan organises several Local, National and International Programmes, viz. Workshops, Trekking Programmes, Talk Shows, Camps, Observance of various days i.e. Earth Day, Environment Day, International Children's Assembly, Youth Environmentalist Conference, Education for All, All India Chairperson's and Directors Conference under the able guidance of Ministry of Human Resource Development. Besides, National Bal Bhavan also deputed its children from different parts of India to various countries under the Cultural Exchange Programmes and these children act as young ambassadors of the subcontinent's socio-cultural ethos. Besides, member children of National Bal Bhavan, affiliated Bal Bhavans across the country and member school/institute of National Bal Bhavan also participate in International Painting Competition on the themes that are of global concern.

NATIONAL COUNCIL FOR TEACHER EDUCATION

The National Council for Teacher Education (NCTE) was established on 17 August 1995 with a view to achieving planned and co-ordinated development of teacher education system throughout the country and for regulation and proper maintenance of norms and standards of teacher education. Some of the major functions of NCTE are: laying down norms for various teacher education courses, recognition of teacher education institutions, laying down guidelines in respect of minimum qualifications for appointment of teachers, surveys and studies, research and innovations, prevention of commercialisation of teacher education, etc.

Four Regional Committees of the Council have been set up for Northern, Southern, Eastern and Western regions respectively. These regional Committees primarily look after recognition of teacher training institutions in their respective regions and are empowered to grant permission to these institutions to run teacher training courses as per the provisions of the National Council for Teacher Education Act. As on 31 December 2009, 12,482 teacher training institutions offering 15,101 courses have been recognised by NCTE with an approved intake of 7.72 lakh teacher trainees.

The NCTE revised its existing regulations and norms and standards and notified NCTE (Recognition norms and Procedures) 2009. While norms and standards for M.Ed. (Part time) and B.P.Ed (Integrated) courses have been dropped, the norms and standards for diploma in visual arts and performing arts have been introduced for the first time.

RIGHT TO EDUCATION

The Constitution (86th Amendment) Act, 2002, inserted Article 21A in the Constitution which provides for free and compulsory education of all children in the age group of six to fourteen years as a Fundamental Right in such manner as the State may, by law, determine.

In order to put in place a suitable legislation as envisaged under Article 21A, The Right of Children to Free and Compulsory Education (RTE) Act, 2009 was passed by the Parliament on 4 August 2009 and the RTE was published in the Gazette of India on 27 August 2009. The RTE Act, *inter alia*, seeks to provide that every child has a right to be provided full time elementary education of satisfactory and equitable quality in formal school which satisfies certain essential norms and standards.

The Constitution (Eighty-sixth amendment) Act, 2002 and the Right of Children to Free and Compulsory Education Act, 2009 have come into force w.e.f. 1 April 2010.

The RTE Act provides children in the 6-14 age group the legal entitlement to free and compulsory education. It has considerable implications for the implementation strategies of SSA. Steps have been taken to harmonise the vision, strategy and norms under SSA with the RTE mandate.

SECONDARY EDUCATION

Rashtriya Madhyamik Shiksha Abhiyan

Launched in March, 2009, this Scheme with the objective to enhance access to secondary education and improve its quality, envisages to achieve an enrolment rate of 75 per cent from 52.26 per cent in 2005-06 in secondary stage within five years by providing a secondary school within a reasonable distance of any habitation. The other objectives include improving quality of education imparted at secondary level through making all secondary schools conform to prescribed norms, removing gender, socio-economic and disability barriers, providing universal access to secondary level education by 2017 and achieving universal retention by 2020.

Broad physical targets include providing facilities for estimated additional enrolment of more than 32 lakh students by 2011-12. The Central Government shall bear 75 per cent and State Governments will bear the 25 per cent of the project expenditure during the 11th Plan. Sharing pattern will be 50:50 for the 12th Plan. For both the plan periods sharing pattern will be 90:10 for the North Eastern States.

The Scheme is to be implemented by the State Government societies established for implementation of the scheme. The Central share is released to the implementing agency directly. The applicable state share is also released to the implementing agency by the respective state governments.

Scheme for Setting up of 6000 Model Schools at Block Level

This is a Scheme to provide quality education to talented rural children through setting up 6000 model schools as benchmarks of excellence at block level at the rate of one school per block. The Scheme was launched in 2008-09 and is being implemented from 2009-10.

The Scheme will have two models, one for 3500 educationally backward blocks in government sector and another for remaining 2500 blocks. The Scheme is to be implemented by the State Government Societies established for implementation of the Scheme. The sharing pattern would be 75:25 for both recurring and non-recurring costs for schools with two sections of class VI to XII. The sharing pattern would be 90:10 for special category states. The central share is released to the implementing agency directly. The applicable State share is also released to the implementing agency by the respective State governments.

Scheme for construction and running of Girl's Hostel for Secondary and Higher Secondary Schools

This is a new centrally sponsored scheme launched in 2008-09 and being implemented from 2009-10 to set up Girl's Hostels with 100 seats in about 35000 educationally backward blocks. The Scheme has replaced the earlier NGO driven Scheme for construction and running of Girls' Hostels for students of Secondary and Higher Secondary Schools, under which assistance was provided to voluntary organizations for running Girl' Hostels.

The main objective of the revised Scheme is to retain girl child in secondary school so that the girl students are not denied the opportunity to continue their study due to distance to school, parents' financial affordability and other connected societal factors.

The girl students in the age group 14-18 studying in classes IX to XII and belonging to SC, ST, OBC, Minority communities and BPL families will form the target group of the Scheme. Students passing out of KGBV will be given preference in admission in hostels. At least 50 per cent of girls admitted will belong to SC, ST, OBC and Minority communities. Central Government will bear 90 per cent of the recurring and non-recurring project cost and the remaining 10 per cent to be borne by the state governments. The Scheme is to be implemented by the state government societies established for implementation of the Scheme.

Scheme of Vocationalisation of Secondary Education at +2 level

Initiated in 1988, this centrally sponsored scheme of Vocationalisation of Secondary Education provides for diversification of educational opportunities so as to enhance individual employability, reduce the mismatch between demand and supply of skilled manpower and provides an alternative for those pursuing higher education. The revised Scheme is in operation since 1992-93. It provides for financial assistance to the states to set up administrative structure, area vocational surveys, preparation of curriculum, text book, work book, curriculum guides, training manual, teacher training programme, etc. It also provides financial assistance to NGOs and voluntary organizations towards implementation of specific innovative projects for conducting short-term courses.

The Scheme, so far, has created a massive infrastructure of 21000 sections in around 9619 schools thus providing for diversion of about 10 lakh students at +2 level. The grants released so far since inception of the Scheme is ₹ 765 crore. Based on the recommendations of various committees/review groups, the existing scheme is being revamped.

Scheme of ICT @ School

The Information and Communication Technology @ School Scheme was launched in December 2004 to provide opportunities to secondary stage students to mainly build their capacity of ICT skills and make them learn through computer aided learning process. The Scheme provides support to States/Union Territories to establish enabling ICT infrastructure in Government and Government aided secondary and higher secondary schools. It also aims to set up Smart schools in KVs and Navodaya Vidyalayas which are pace setting institutions of the Government of India to act as "Technology Demonstrators" and to lead in propagating ICT skills among students of neighbourhood schools.

Under the Scheme, financial assistance is provided for procurement of computers and peripherals, educational software, training of teachers, computer stationery, internet connectivity and for monitoring purposes. The unit cost per school is ₹ 6.70 lakh. Central assistance both recurring and non-recurring is provided in the ratio of 75:25 between centre and the states, except for the Special Category states where it is 90:10.

Based on experience gained, so far, the Scheme has been revised with the approval of CCEA on 9 January 2010 during the 11th Plan. The elements of the revised

proposal are to increase outreach to all government and government aided secondary and higher secondary schools, strengthen teacher, provision of broadband connectivity and e-content development. The preparation of the guidelines of the revised ICT in schools scheme is under process.

Inclusive Education for Disabled at Secondary Stage

The Scheme of Inclusive Education for Disabled at Secondary Stage (IEDSS) has been launched from the year 2009-10. This Scheme replaces the earlier scheme of Integrated Education for Disabled Children (IEDC) and would provide assistance for the inclusive education of the disabled children in classes IX-XII.

The aim of the Centrally Sponsored Scheme of IEDSS is to enable all students with disabilities, after completing eight years of elementary schooling, to pursue further four years of secondary schooling (classes IX to XII) in an inclusive and enabling environment.

The scheme will cover all children passing out of elementary schools and studying at secondary stage in Government, local body and Government-aided schools, with one or more disabilities as defined under the Persons with Disabilities Act (1995) and the National Trust Act (1999) in the age group 14+ to 18+ (classes IX to XII) namely (i) Blindness, ii) Low vision, iii) Leprosy cured, iv) Hearing impairment, v) Locomotor disabilities, vi) Mental retardation, vii) Mental Illness, viii) Autism, and ix) Cerebral Palsy, and eventually cover Speech impairment, Learning Disabilities, etc.

Girls with disabilities will receive special focus and efforts would be made under the scheme to help them gain access to secondary schools, as also to information and guidance for developing their potential. There is a provision of a monthly stipend of ₹ 200/- for the disabled girls.

Central assistance for all items covered in the scheme is on 100 per cent basis. The School Education Department of the State Governments/Union Territory (UT) Administrations would be the implementing agency. They may involve NGOs having experience, in the field of education of the disabled, in the implementation of the scheme.

Assistance is admissible for two major components, viz.

- i) **Student-oriented components**, such as, medical and educational assessment, books and stationery, uniforms, transport allowance, reader allowance, stipend for girls, support services, assistive devices, boarding and lodging facility, therapeutic services, teaching/learning materials, etc. For this ₹ 3000/- per child per annum is provided as Central Assistance to be topped by the States by a Scholarship of ₹ 600/- per child per annum.
- ii) **Other components** include appointment of special education teachers, allowances for general teachers for teaching such children, teacher training, orientation of school administrators, establishment of resource room, providing barrier free environment, etc.

Appropriate structure should be established at the Central, State, District, and block and city level to ensure reporting from functionaries at different levels. Selection of NGOs should be done by the State Governments through a Grant-in-aid Committee consisting of reputed educationalists, practitioners, Central Government representatives and others. Steering committees at Central, State and District level should also be constituted.

State Governments should set up Administrative Cells in the Education Department in States to implement the programme.

At the central level, a Project Monitoring and Evaluation Group has been established to appraise the proposals from the state governments and also for monitoring and evaluation. This has several experts in the field of inclusive education.

During 2009-10, ₹ 55.13 crore was released and 53947 disabled children were covered under the IEDSS Scheme. Budget allocation under the Scheme for the year 2010-2011 is ₹ 70.00 crore.

QUALITY IMPROVEMENT IN SCHOOLS

During the 10th Five Year Plan, “Quality Improvement in Schools” was introduced as a composite centrally sponsored scheme having the following components : (i) National Population Education Project, (ii) Environmental Orientation to School Education, (iii) Improvement of Science Education in Schools, (iv) Introduction of Yoga in Schools, and (v) International Science Olympiads. A decision was taken to transfer four of these components to National Council of Educational Research and Training (NCERT) w.e.f. April 2006, except the component of improvement of Science Education in school that was transferred to states.

NATIONAL POPULATION EDUCATION PROJECT

The National Population Education Project was launched in April 1980 with the overarching objective of institutionalizing population education in the school education and teacher education systems to contribute to the attainment of population and development goals of the country. Up to 2002, this was implemented as externally aided Project which was fully funded by the United Nations Population Fund (UNFPA). It was being implemented in the University education and adult education sector as well. In view of the achievements and significance of the Project, Government of India decided to continue it in the 10th Five Year Plan with a more focused objective of integrating the elements of reconceptualised framework of population education in school curriculum.

Moreover, UNFPA decided to support a concomitant Project focused on adolescent reproductive and sexual health (ARSH) from 2004. During 2006-07, the NPEP was implemented as an integral part of Adolescence Education Programme, launched by Ministry of Human Resource Development in 2005 in collaboration with National AIDS Control Organisation (NACO).

ENVIRONMENTAL ORIENTATION TO SCHOOL EDUCATION

The National Policy on Education (NPE)-1986 provides that the protection of environment is a value which, along with certain other values, must form an integral part of curriculum at all stages of education. To operationalise this noble objective, the mind and intellect of the students must be sensitised to the hazards inherent in upsetting the ecological balance in nature. This step inculcates awareness and respect among students for basic concepts relating to the conservation of environment.

To this end, a Centrally-sponsored Scheme “Environment Orientation to School Education” was initiated in 1988-89. The scheme envisages assistance to voluntary agencies for conduct of experimental and innovative programmes aimed at promoting integration of educational programmes in schools with local environmental conditions.

IMPROVEMENT OF SCIENCE EDUCATION IN SCHOOLS

To improve the quality of science education and to promote the scientific temper, as envisaged in the National Policy on Education, 1986, a Centrally sponsored Scheme, "Improvement of Science Education in Schools" was initiated during 1987-88. Under the scheme financial assistance was being provided to States/UTs and voluntary agencies. While voluntary agencies were provided assistance for conducting experimental and innovative programmes, States/Union Territories were assisted for provision of science kits to Upper Primary Schools, setting up/upgradation of science laboratories in Secondary/Senior Secondary Schools, Library facilities in Secondary/Senior Secondary Schools and Training of Science and Mathematics teachers.

One of the important components of this scheme was participation of Indian Students at school level in the International Science Olympiads, viz. International Mathematical Olympiad (since 1989), International Physics Olympiad (since 1998), International Chemistry Olympiad (since 1999) and International Biology Olympiad (since 2000).

INTRODUCTION OF YOGA IN SCHOOLS

Introduction of Yoga in Schools was launched as a Centrally Sponsored Scheme during 1989-90 to provide financial assistance to States/Union Territories/Non-Governmental Organisations. It aimed at giving central assistance for training and research, enrichment of library and construction/expansion of hostels for teacher trainees. It was being implemented through the concerned Departments of Education of States/UTs. It was transferred to NCERT w.e.f. April 2007. NCERT has initiated to review the Scheme in the light of National Curriculum Framework 2005.

KENDRIYA VIDYALAYA SANGATHAN

The Scheme of Kendriya Vidyalaya Sangathan (KVS) was approved by Government of India in November 1962 to provide uninterrupted education to the wards of the transferable central government employees. Initially, 20 regimental schools were taken over as central schools during the academic session 1963-64. This number has now gone up to 981 functional schools including 3 abroad (Kathmandu, Moscow and Tehran) as on 31 March 2009. 42 KVs are running in double shift.

The salient features of the KVs are: primarily cater to the educational needs of the wards of transferable central government employees; all KVs are co-educational; all KVs are affiliated to CBSE; in case of girl students, tuition fee is not charged; tuition fee is also not charged for boys up to class VIII, the wards of KVs staff and SC/ST students upto class XII.

31 KVs have been identified to be developed as Smart Schools. All the 31 KVs have been sanctioned ₹ 25 lakh each to enrich their infrastructure and enhance the quality of education through the optimum use of IT and Multimedia.

The KVs are fully funded by the Government of India. KVs also provide hostel facility to their boys and girls who need it. There are 9 KVs having this facility. There are 92 KVs functioning in the North-Eastern Region of India.

CENTRAL BOARD OF SECONDARY EDUCATION

Set up in 1929, the second oldest Board of the country, Central Board of Secondary Education is an autonomous body working under the aegis of the Ministry of Human

Resource Development. The main objectives of the CBSE include: affiliating institutions in and outside the country, conduct annual examinations at the end of Class X and XII, conducting entrance examinations to professional courses for admission into medical and engineering colleges, updating and designing curriculum and empowering the teachers and heads of institutions. There are 10,599 schools affiliated with CBSE as on 31 December 2009.

The Board conducts various examinations viz. Senior School Certificate Examination (Class XII), Secondary School Examination (Class X), All India Pre-Medical/Pre-Dental Entrance Examination, All India Engineering Entrance Examination and Jawahar Navodaya Vidyalaya Selection Test.

The Board has extended the concept of continuous and comprehensive evaluation (CCE) in class IX with effect from October 2009 to be continued in class X for the year 2010 onwards. For this purpose, syllabus has been split up over two terms. Each term will have two formative tests of 10 per cent weightage each and one summative test of weightage 20 per cent and 40 per cent respectively. The emphasis on conceptual clarification through experiential learning in the classroom will increase since there will be more time available for transaction of curriculum. It will help students with life skills especially creative and critical thinking skills.

CBSE offers vocational education. At present, 32 packages comprising 100 subjects under vocational stream are offered.

NATIONAL INSTITUTE OF OPEN SCHOOLING (NIOS)

Initiated as a project in 1979 under the Central Board of Secondary Education, the Open Schooling Programmes have now taken shape as an independent system of education in India. The NIOS, with international recognition and presence, provides access to sustainable and learner-centric quality school education, skill upgrading and training through open and distance learning and ensures convergence of open schooling organisations, resulting in an inclusive learning society, human resource development, national integration and global understanding. The NIOS formerly National Open School, with approximately 1.6 million learners on roll, has emerged as the largest Open schooling organization in the world.

NIOS works through its five departments and two units at headquarters and 11 regional centres located at Hyderabad, Pune, Kolkata, Guwahati, Chandigarh, Delhi, Allahabad, Patna, Jaipur, Kochi and Bhopal. Three sub-centres of the regional centres of NIOS have been set up at Bhubaneswar, Dehardun and Darbhanga.

The Institute provides opportunities to interested learners by making available various courses/programmes through open and distance learning mode. It offers 27 subjects at the Secondary level and 21 subjects at Senior Secondary level.

From the Academic year 2007-08, NIOS has introduced the facility of online admission. 30,000 admissions took place during this initial phase. NIOS was also able to provide payment gateway facility for online admissions to learners and is the first educational institution at school level in India to achieve this landmark.

NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING (NCERT)

Established in 1961, National Council of Educational Research and Training (NCERT) is an apex resource organization of Government of India in the field of school education. It is an autonomous organization registered under Societies Registration Act to advise and assist the Ministry of Human Resource Development, Government

of India and Departments of Education in States/Union Territories in formulation and implementation of their policies and major programmes in the field of education, particularly for qualitative improvement of school education.

NCERT undertakes programmes related to research, development, training, extension, international cooperation, publication and dissemination of educational information. Besides, NCERT acts as major agency for implementing the bilateral cultural exchange programmes with other countries in the field of school education. The agency also interacts and works in collaboration with international organizations, visiting foreign experts and delegations and offers various training facilities to educational personnel from developing countries.

Some of the major ongoing programmes of the NCERT include: innovative pre-service teacher education and counselling courses, All India School survey, survey of research in education, transmission of educational video programmes on DD and AIR educational channels 'Gyan Darshan' and 'Gyan Vani', and teachers training on new textbooks through teleco teleconferencing using EDUSAT facility etc

NAVODAYA VIDYALAYA SAMITI

The National Policy on Education – 1986 envisaged setting up of model schools, one in each district of the country. Accordingly, a scheme was formulated under which it was decided to set up co-educational residential schools (now called Jawahar Navodaya Vidyalayas).

Navodaya Vidyalayas are fully residential co-educational institutions providing education up to senior secondary stage. The scheme, which started with only two schools on experimental basis in 1985-86, has grown to 576 schools in 2009 covering as many districts in 34 States/UTs, with over 2 lakh students on rolls as on 30 September 2009.

The Vidyalayas envisaged a new style of growth with identification and development of talented, bright and gifted children predominantly from rural areas who may otherwise be denied good educational opportunities. Efforts are made to ensure that at least 33 per cent of the students enrolled are girls.

Migration is a unique feature of Navodaya Vidyalaya scheme whereby 30 per cent of students of Class IX from a Vidyalaya located in Hindi speaking area spend one academic year in a Vidyalaya located in Non-Hindi speaking area and vice-versa to promote national integration through understanding of the diversity and plurality of the country's people, their language and culture.

ADULT EDUCATION

Literacy is at the heart of basic education for all, and is essential for eradicating poverty, reducing child mortality, curbing population growth, achieving gender equality and ensuring sustainable development, peace and democracy. Universal literacy also has special significance for those who have been historically deprived of access to education. Besides empowering youth and adults through a variety of educational programmes, achieving universal adult literacy is the fundamental goal of Adult and Continuing Education. In fact, beginning with basic literacy programmes, activities in the lifelong learning perspectives, contribute not only in enhancing reading and writing capabilities, but also imparting a comprehensive set of life skills that enable them to access all developmental resources.

Launch of Saakshar Bharat

The campaign for total literacy that began with the launching of National Literacy Mission (NLM) in 1988 has now completed two decades. During this period, literacy rates have moved up from 43.57 per cent in 1981 to 64.84 per cent in 2001. A new Census is to take place in 2011 when the current status of literacy would be known. 2001 Census shows male literacy as over 75 per cent while female literacy remains at an unacceptable level of 54 per cent. The literacy rate among adult females is all the more alarming as merely 47.82 per cent women in this age group are literate.

The President, in her address to the Parliament, which articulated the agenda for the government for the period from 2009-2014, made an important policy announcement that "government will recast the National Literacy Mission as a National Mission for Female Literacy to make every woman literate in the next five years".

In the context of government's overall policy aimed at empowerment of women and in recognition of the fact that literacy is a pre-requisite for socio-economic development, the National Literacy Mission has been recast as "SAAKSHAR BHARAT" with prime focus on female literacy. The flagship programme of the Government will cover all adults in the age group of 15 and beyond though its primary focus will be on women. The scheme has not only been relieved of the shortcomings noted in its preceding editions, but also, several new features added to it. Basic Literacy, Post literacy and continuing Education programmes will now form a continuum, rather than sequential segments. Besides the volunteer based mass campaign approach, provision has been made for alternative approaches to adult education. Lok Shiksha Kendras (Adult Education Centres) (AECs), will be set up to coordinate and manage all programmes, within their territorial jurisdiction. State Governments, as against the districts in the earlier versions, and Panchayati Raj institutions, along with communities, will be valued stakeholders. Vigorous monitoring and evaluation systems will be installed. Last, but not the least, budgetary support has been enhanced substantially.

The Mission has four broad objectives, namely:

- i. Impact functional literacy and numeracy to non-literate and non-numerate adults.
- ii. Enable the neo-literate adults specially younger adults to continue their learning beyond basic literacy and acquire equivalency to formal educational system.
- iii. Impart non and neo-literates relevant skill development programmes to improve their earning and living conditions.
- iv. Promote a learning society by providing opportunities to neo literate adults and other potential learners for continuing education.

The principal target of the mission is to impart functional literacy to 70 million adults in the age group of 15 years and beyond. Auxiliary target of the mission is to cover 1.5 million adults under basic education programme and equal number under vocational (skill development) programme. Within these targets, the Mission will primarily focus on, but not limited to, women. Scheduled Castes (SCs), Scheduled Tribes (STs), Minorities, other disadvantaged groups and adolescents in rural areas in low literacy States will be other focused groups. For each focused group and area, there will be a specific target and for each target, an explicit approach and strategy.

In its first phase, that is during the 11th Plan period (31 March 2012) the Saakshar Bharat programme will remain confined to districts with adult female literacy rate of 50 per cent or less as per 2001 Census. There are 365 districts in 25 States and one UT, having adult female literacy rate of 50 per cent or less. Out of the 11th Plan outlay of ₹ 6000 crore for the Adult Education Schemes, ₹ 5257 crore have been allocated for the scheme of Adult Education and Skill Development, i.e. Saakshar Bharat. In the current financial year, i.e. 2010-11, out of the total outlay of ₹ 1300 crore for Adult Education an amount of ₹ 1167 crore has been allocated for Saakshar Bharat.

Fund Management System : A fund flow mechanism, based on the concept of a single bank account for each State Literacy Mission Authority and empowering the District Panchayat, Block Panchayat and Gram Panchayat to draw cheques against the single bank account with online monitoring of progress of expenditure, has been put in place. SLMAs have been advised to open separate bank accounts as envisaged under this mechanism. Sanctions for fund release were issued by December 2009 and funds have been transferred to these bank accounts within the quarter ending 31 March 2010. This would enable physical implementation of the scheme to start at the State level.

Web based planning and monitoring: Module-I of the web based planning and monitoring application developed by NIC has been operationalised. This Project Planning System, on one hand enables States to prepare their interim action plans, district wise, and their submission online and on the other hand enables NLMA to calculate financial sanctions up to the Gram Panchayat levels. Besides, the Module will also facilitate uploading of the information on learners, preraks and volunteer teachers, as collected through survey of the households.

Adult and Continuing Education

The programme has been rolled out in 167 districts in 19 States, to cover 3.83 crore non literates in over 80,000 Gram Panchayats under basic literacy programme and to establish 81,007 adult education centres, one each in a Gram Panchayat, under the Continuing Education component. Grant-in-aid of ₹ 325.98 crore has been released to 19 States as the first instalment of the Central share. To make the implementation effective the fund management system has been reformed, web based planning and monitoring undertaken, workshops and orientation programmes were organized during 2009-10. It is proposed to implement Saakshar Bharat programme in 43 more districts during 2010-11 to cover 49.86 lakh non-literates in over 11,996 Gram Panchayats under basic literacy programme and to establish 11,996 Adult Education Centres, one each in a Gram Panchayat, under the Continuing Education component. Task Forces have been constituted to consider and deliberate upon different aspects of Saakshar Bharat and to devise target specific strategies for effective implementation of the programme.

Scheme of Assistance to Voluntary Agencies for Adult Education and Skill Development

In order to promote adult education and skill development through the voluntary sector, support to Voluntary Agencies (VAs) was so far being extended through two schemes, namely, (i) Assistance to Voluntary Agencies in the field of Adult Education and (ii) Jan Shikshan Sansthan. With effect from 1 April 2009 both these schemes have been merged and a modified scheme, named as "Scheme of Support to Voluntary Agencies for Adult Education and Skill Development" has been put up in place. The main objective of this Scheme is to secure extensive as well as intensive involvement

of the voluntary sector in the endeavours of the Government to promote functional literacy, skill development and continuing education among adults, under the overall umbrella of Saakshar Bharat. The Scheme encompasses three components, namely, State Resource Centres, Jan Shikshan Sansthan and Assistance to Voluntary Agencies.

State Resource Centres (SRCs)

The State Resource Centres (SRCs) are mandated to provide academic and technical resource support to adult and continuing education through the development and production of material and training modules. The main functions of State Resource Centres are as follows:

- Development of teaching/learning and training materials for literacy programmes.
- Production and dissemination (including translation) of literature for adult education.
- Training of literacy functionaries.
- Undertaking motivational and environment building activities for adult education.
- Multimedia works.
- Running of field programmes.
- Action research, evaluation and monitoring of literacy projects.
- Undertaking innovative projects to identify future need of literacy programmes. Currently, there are 30 SRCs in different parts of the country.

Jan Shikshan Sansthan

Jan Shikshan Sansthan (JSSs) are established to provide vocational training to non-literate, neo-literate, as well as school dropouts by identifying skills as would have a market in the region of their establishment. They are categorized into Category 'A', 'B' and 'C' and are entitled to an annual grant upto ₹ 40 lakh, ₹ 35 lakh and ₹ 30 lakh respectively. JSSs impart skill development training in nearly 394 vocational courses in Cutting and Tailoring, Beauty Culture and Health Care, Fashion Design, Electrical and Electronics, Automobiles Repairs, Soft Toys Making, Agriculture Allied Courses, Cottage Industry Courses, Handicrafts, Bakery and Confectionery, Textile Technology, Leather Technology and Building Technology. In selection of beneficiaries, priority is given to women, SCs, STs, OBCs, minorities and other economically weaker sections. A number of steps such as fund release rationalization, standardisation of curriculum, capacity building of Directors of JSSs were initiated to improve the functioning of JSS during 2009-10. Web based monitoring of projects was undertaken by National Informatics Centre (NIC) and will be made operational during 2010-11.

Saakshar Bharat: Enhancing Opportunities for Lifelong Learning

Saakshar Bharat envisages to provide an impetus to achieving the goal of a fully literate society engaged in lifelong learning through:

- Development of quality human resource to meet the demands of Bharat, in transition.
- Empowerment, transformation and application of literacy skills.
- Use of ICT, Media and innovatively designed cultural and library based activities in specially designed Continuing Education Programmes.

- A uniform pattern of Equivalency framework across the country to open avenues for further education through Open and distance Learning Systems. The government to meet the entire cost of teaching-learning including materials and assessment.
- To prepare a specially designed programme for neo-literates of about 200 hours, the completion of which will merit a learner literacy level equivalent to Standard V.
- Given the diversity of contexts, needs and target groups, diverse strategies like arrangement for resident camps, resident instructor mode and theme based literacy interventions, etc. as per the needs and requirements of the learners is ensured.
- A specially designed Basic Education Programme to facilitate neoliterates and school dropouts to continue their learning beyond basic literacy and acquire equivalency to formal education system up to class XII.
- Special importance to skill development programme to equip the neo-literates and non-literates with skills to improve their livelihood opportunities.
- Jan Shikshan Sansthan to be institutionally networked with the Adult Education Centres in the villages for imparting vocational training programmes.

Strategies for promoting universal female literacy and lifelong learning

The literacy movement cannot succeed without the targeted approach to effectively include all persons in the age group 15 years and above into it. Their empowerment as literate persons would help them to contribute towards achieving universal education as well as overall development, including health. Experience shows that literacy movement has the potential to enhance the productive capacities of persons in this age group through literacy movement by providing them with appropriate education and training. In fact, the programme components have been appropriately designed to achieve this goal. The adult education, accordingly, encompasses skill development to improve economic status and well being, imbibing values of national integration, conservation of environment, women's equality and observance of small family norms. Thus, the programme looks beyond mere imparting of basic literacy.

It is felt that the mission will have a positive impact on re-energising the literacy movement. Hence the national goal will no longer remain confined merely to promoting literacy in the conventional sense of enabling every adult to read or write or compute but to generate a literate environment that promotes and sustains a Literate Society and provides ample opportunities for continuous improvement in the levels of adult literacy especially for those belonging to marginalised groups and women.

It is also envisaged that Adult and Continuing Education will be carried forward by all the stake holders along with the Government, and the Government is committed to enriching and empowering the human resource potentials of the country through this programme.

Female Literacy and Women Empowerment

The correlation between female literacy and women's empowerment are globally recognized. As female education rises, fertility, population growth, infant mortality falls and family health improves. Literate women are more politically active and better informed about their legal rights and how to exercise them.

The Government, on assumption of office in May 2009, had announced that literacy would be its key programme instrument for emancipation and empowerment of women. Efforts of the Government to give impetus to school education, health, nutrition, skill development and women empowerment in general are impeded by the continuance of female illiteracy. Government expects increase in female literacy to become a force multiplier for all other social development programmes. However, this is only the instrumental value of female literacy. Its intrinsic value is in emancipating the Indian woman through the creation of critical consciousness to take charge of her environment where she faces multiple deprivations and disabilities on the basis of class, caste and gender.

In the context of Government's overall policy aimed at empowerment of women and in recognition of the fact that literacy, especially female literacy, is a pre-requisite to socio-economic development, it was considered imperative that the National Literacy Mission (NLM), as a programme instrument, be recast with an enhanced focus on female literacy.

Government also wished the new mission to take cognizance of considerable demand for female literacy generated on account of large scale changes at the grassroot level and the new opportunities that have been created over the past several years, most notably, the increasing vibrancy of Panchayati Raj Institutions (PRIs), post 73rd Constitution Amendment, the shift to the model of Self-Help-Groups (SHGs) that operate through collectivities for self-employment programmes, the massive new organisational capital being forged again through work collectives such as National Rural Employment Guarantee Act (NREGA), Joint Forest Management Groups etc. The articulated shift to inclusive development with substantial public investment in the 11th Plan makes it imperative that female literacy is focused upon to derive multiplier effects for inclusive development.

EDUCATION OF SCHEDULED CASTES AND SCHEDULED TRIBES

Constitutional provisions : Article 46 of the Constitution states that, "The State shall promote, with special care, the education and economic interests of the weaker sections of the people, and, in particular of the Scheduled Castes and Scheduled Tribes, and shall protect them from social injustice and all forms of social exploitation." Articles 330, 332, 335, 338 to 342 and the entire Fifth and Sixth Schedules of the Constitution deal with special provisions for implementation of the objectives set forth in Article 46. These provisions need to be fully utilised for the benefit of these weaker sections in our society.

Special provisions : After independence, the Government of India has taken a number of steps to strengthen the educational base of the persons belonging to the Scheduled Castes and Scheduled Tribes. Pursuant to the National Policy on Education-1986 and the Programme of Action (POA)-1992, the following special provisions for SCs and STs have been incorporated in the existing schemes of the Departments of Elementary Education and Literacy and Secondary and Higher Education : (a) relaxed norms for opening of primary/middle schools; a primary school within one km walking distance from habitations of population up to 200 instead of habitations of up to 300 population. (b) Abolition of tuition fee in all States in Government Schools at least up to the upper primary level. In fact, most of the states have abolished tuition fees for SC/ST students up to the senior secondary level. (c) Incentives like free textbooks, uniforms, stationery, school bags, etc. for these students. (d) The Constitutional (86th Amendment) Bill, notified on 13 December 2002, provides for

free and compulsory elementary education as a Fundamental Right, for all children in the age group of 6-14 years.

The reservation as per government policy to the students of SC/ST communities is given to various schemes at School Education Sector, viz. SSA, Mahila Samakhya, NPEGL, Kasturba Gandhi Balika Vidyalaya, Jan Shikshan Sansthan, Mid Day Meal Scheme, NIOS etc.

At the University and Higher Education, the University Grants Commission issues guidelines/directives/instructions from time to time for implementation of reservation policy of the Government of India. UGC implements the career orientation programme for graduates for gainful employment for all including SCs/STs and OBCs. UGC has created a central pool database of eligible SC/ST/OBC candidates and recommends their candidature for teaching positions in universities and colleges. UGC introduced the scheme of establishment of SC/ST cells in universities in the year 1983. The main objective of the Scheme is to improve the status of SC/ST who are socially and educationally backward so that they can have their rightful place in the mainstream of the society.

The UGC has introduced various schemes for the benefit of the students of SC/ST communities like coaching classes for SC/ST candidates for preparation for National Eligibility Test, residential coaching at UG/PG level for SC/ST students, and postgraduate scholarships for students belonging to SCs/STs. As per the order of the Government of India 15 per cent and 7.5 per cent seats are reserved for SC/ST students respectively in all the technical education programmes.

In National Institute of Open Schooling, SCs/STs students are given 55 per cent concession in admission fee at Secondary level and 54 per cent concession at Senior Secondary level.

Minority Education

Article 30 (1) of the Constitution provides for the rights of the minorities to establish and administer educational institutions of their choice. The HRD Ministry has taken several steps to implement the recommendations of the Prime Minister's High Level Committee on Social, Economic and Educational Status of the Muslim Community of India-Sachar Committee. All the State Governments and Union Territories administrations have been advised for using the existing school buildings and community buildings as study centres for students of the minority communities lacking in facilities so that they can spend a few hours to concentrate on their studies.

Under Teacher Education Scheme, there is a proposal to establish 196 block institutes of Teacher Education in minority and SC/ST concentration areas to offer pre-service and in-service education courses.

UGC is working out modalities so that all universities could be encouraged to recognize qualifications from Madrasas for the purpose of enrolment on the pattern followed by the Jamia Millia Islamia, Aligarh Muslim University, Maulana Azad National Urdu University and Jamia Hamdard in appropriate courses and programmes.

National Commission for Minorities Educational Institutions (NCMI) was established on 11 November 2004 to advise the Central Government or any State Government on protection of the Constitutional right of the minorities to establish and administer educational institutions of their choice and other allied matters. The

Commission has issued Minority Status Certificates to 3913 educational institutions till 31 March 2009 which includes 460 during the year 2008-09.

The Area Intensive and Madrasa Modernisation Programme (AIMMP) had two components namely Madrasa Modernisation and Infrastructure Development. With a view to giving greater thrust to each of the two components, the Scheme has been revised as two distinct schemes from November 2008 namely (i) Scheme for providing quality education in Madrasas and (ii) Scheme for Infrastructure Development in Minority Institutions/Schools.

Scheme for providing Quality Education in Madrasas (SPQEM) seeks to bring about qualitative improvement in Madrasas to enable Muslim children attain standards of the national education system in formal education subjects. The unique feature of this modified scheme is that it encourages linking of madrasas with National Institute for Open Schooling as accredited centres for providing formal education, which will enable children studying in such madrasas to get certification for classes V, VIII, X and XII. The NIOS linkage will be extended under this Scheme for Vocational Education at the secondary and higher secondary stage of madrasas.

The Scheme of Infrastructure Development in Minority Institutions (IDMI) has been operationalised to augment infrastructure in private aided/unaided minority schools/institutions in order to enhance quality of education to minority children. The Scheme will cover the entire country but, preference will be given to minority institutions located in districts, blocks and towns having a minority population above 20 per cent.

EDUCATIONAL DEVELOPMENT IN NORTH-EASTERN REGION

There is special emphasis on socio-economic development of the North-Eastern Region comprising eight states. As per the Government orders, 10 percent Gross Budgetary Support of the HRD Ministry has been earmarked for implementing development schemes in the region. The shortfall in utilization of this 10 per cent is automatically transferred to the Non-lapsable Central Pool of Resources (NLCPR) administered by the Ministry of Development of North-Eastern Region, for funding specific infrastructure development projects in the region.

Out of 40 Central Universities of the country, there are nine Central Universities in the North-East Region. The UGC has been providing plan/non-plan grants since the inception of Universities for general as well as specific development of NE region as per the provisions available in the respective guideline of UGC.

IGNOU has established a network of Open and Distance Learning institutes and centres in the region. At present, there are 8 regional centres and 433 learners support centres functioning in the region. National Book Trust under its special scheme titled "Development Project for North-Eastern Region" organized several book promotional activities during 2009-10. Several Central Technical Institutes like IIT, Guwahati, Rajiv Gandhi Indian Institute of Management, Shillong, Central Institute of Technology, Kokrajhar, Assam, etc. are taking care of the higher technical education in the North-East region.

Out of 10 new NITs proposed to be opened in the country during 11th plan, 6 NITs are proposed to be opened in Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland and Sikkim. It is proposed to establish 1000 polytechnics in the country in unserved and underserved districts including 66 districts of NE region.

Central Institute of Indian Languages, Mysore has been working on various tribal languages of the North-Eastern Region. The Institute is committed to the empowerment of tribal groups.

The Planning Commission has approved the Plan outlay of ₹ 8636.30 crore for 2009-10 for the Department of Higher Education. Out of this, an outlay of ₹ 796 crore has been earmarked for the North-Eastern Region and as on 12 February 2010 ₹ 514.22 crore have been certified to release.

SCHOLARSHIPS

A centrally sponsored scheme called National Means-cum-Merit Scholarship was launched in 2008-09. The objective of the scheme is to award scholarships to meritorious students of economically weaker sections to arrest their dropout at class VIII and encourage them to continue in the secondary stage that is up to class XII. As per the scheme, one lakh scholarships of ₹ 6,000/- per annum (₹ 500 per month) per student will be awarded to the selected students each year for study in classes IX to XII. There is reservation as per norms.

In 2008-09, another scheme called 'Incentive to Girls for Secondary Education' was launched. As per the scheme a sum of ₹ 3000/- will be deposited in the name of eligible girls as fixed deposit and she would be entitled to withdraw it along with interest thereon on reaching 18 years of age and she would have already passed 10th class examination. The scheme will cover all girls belonging to SC/ST communities, who pass class VII and all girls who pass class VIII examination from Kasturba Gandhi Vidyalayas and enrol in class XII in Government, Government-aided and local body schools.

A centrally sponsored Sector Scholarship Scheme for college and university students was introduced in 2008. The aim of the scheme is to provide financial assistance to meritorious students from poor families to meet their day-to-day expenses while pursuing higher studies and professional courses. Students securing 80 per cent and above marks in the class XII or equivalent exams and not belonging to the 'Creamy layer' pursuing higher studies or professional courses from recognized institutions as regular candidates, are eligible under the Scheme. Every year 8200 fresh scholarships are awarded, of which 50 per cent are reserved for girls. There will also be reservation as per reservation policy of the Government subject to internal earmarking.

The rate of scholarship is ₹ 10,000 per annum for the first three years of graduate level studies and ₹ 20000 per annum for post-graduate level studies and 4th and 5th year of professional courses. The scholarship is given for 10 months in an academic year and is remitted directly into the bank accounts of the selected students.

Started in 1992, Dr. Ambedkar National Scholarship Scheme envisages recognizing, promoting and assisting meritorious students belonging to SCs/STs and whose family income from all sources is less than ₹ 1 lakh in the preceding financial year for enabling them to pursue higher studies. This is an one time cash award and is given to 3 students scoring highest marks in class X level examination conducted by the Educational Board/Council. This is separate for SC and ST. In case none of the first three eligible students are girls, the girl student scoring the highest mark gets a special award. This Scheme is applicable to National Institute of Open Schooling learners.

A Scheme of scholarship to students from non-Hindi speaking states for post-matric studies in Hindi was started in 1955-56 with the objective to encourage the study of Hindi in non-Hindi speaking states and to make available to the Government of these states, suitable personnel to man teaching and other posts where knowledge of Hindi is essential. The Scheme was revised from 2004-05. Under the revised Scheme, 2500 scholarships are provided to meritorious students studying at post-matric to Ph.D level, for recognized full time courses of education for study of Hindi as one of the subjects on the basis of the results of "examination next below" conducted by a Board of Education or a University or a Voluntary Hindi Organization. The rate of scholarship ranges from Rs. 300 to Rs. 1000 per month depending upon the course/state of study. The Scheme is implemented through the state governments/UT administrations.

The Ministry of HRD also processes scholarships offered by various foreign countries under cultural/educational exchange programmes, for Indian students to study in the respective countries at the level of post-graduate/Ph.D./ Post-Doctoral Research.

PROMOTION OF LANGUAGES

Language being the most important medium of communication and education, its development occupies an important place in the 'National Policy on Education and Programme of Action'. Therefore, the promotion and development of Hindi and other 22 Languages listed in schedule VIII of the Constitution of India have received due attention. These programmes have been implemented through three subordinate offices i.e. Central Hindi Directorate, Commission for Scientific and Technical Terminology and Central Institute of Indian Languages, and six autonomous organisations.

HINDI

In order to assist non-Hindi speaking States/UTs to effectively implement the three-language formula, support for teaching of Hindi in these States/UTs is provided by sanctioning financial assistance to appoint Hindi teachers in schools under a Centrally-sponsored scheme. Assistance is also given to Voluntary Organisations for enabling them to hold Hindi-teaching classes. Through the Kendriya Hindi Sansthan, the Government promotes development of improved methodology for teaching Hindi to non-Hindi speaking students. A special course for teaching Hindi to foreigners is being conducted by the Sansthan, on regular basis annually.

The Central Hindi Directorate runs programmes relating to purchase and publication of books and its free distribution to non-Hindi speaking States and to Indian missions. It extends financial support to NGOs engaged in development and promotion of Hindi. The Directorate has been teaching as a second language to non-Hindi speaking Indians and foreigners through the medium of English, Tamil, Malayalam, and Bangla languages.

The Commission for Scientific and Technical Terminology, New Delhi, prepares and publishes definition dictionaries and terminology in various disciplines in Hindi and in other languages.

MODERN INDIAN LANGUAGES

Financial assistance is given to voluntary organisations and individuals to bring out publications like encyclopedias, dictionaries, books of knowledge, original writings

on linguistics, literacy, ideological, social, anthropological and cultural themes, critical edition of old manuscripts, etc., for the development of Modern Indian Languages. States are given special help for the production of University-level books in regional languages. The National Council for Promotion of Urdu Language (NCPUL) has been functioning since April 1996 as an autonomous body for the promotion of Urdu language and also Arabic and Persian languages. One of the outstanding areas of operation of NCPUL has been transfer of information of Urdu speaking population into productive human resource and making them part of the employable technological workforce in the emerging information technological scenario and penetration of computer education to the grass-root level in minority concentration blocks. The Government has also set up National Council for Promotion of Sindhi.

The Government also provides facilities for study of all Indian languages. For this the Central Institute of Indian Languages (CIIL), Mysore conducts research in the areas of language analysis, languages, pedagogy, language technology and language use. It runs Regional Language Centres to help in meeting the demand for training of teachers to implement the three-language formula. The Regional Language Centre also provides training for mother-tongue teachers in different Indian languages at various levels.

ENGLISH AND FOREIGN LANGUAGES

The Central Institute of English and Foreign Languages (CIEFL), Hyderabad, an Institution of Higher Learning deemed to be a University, is an autonomous organisation under this Ministry, which undertakes teacher education programme to improve the professional competence of teachers of English as the secondary language. It offers several courses like post graduate certificate and diploma courses in teaching of English and Ph.D courses in English through the distance mode. It also offers teaching of major foreign languages like Arabic, French, German, Japanese, Russian and Spanish. It has regional centres at Shillong and Lucknow. The CIEFL also implements two Government of India schemes of English Language Teaching Institute (ELTI) and District Centres for English to bring about substantial improvements in the standard of teaching/learning of English in the country for which grants are given by CIEFL to various State Governments.

STRENGTHENING OF CULTURE AND VALUES IN EDUCATION

The National Policy on Education, 1986 (revised in 1992) and its Programme of Action-1992 has laid considerable emphasis on value education by highlighting the need to make education a forceful tool for social and moral values.

To fulfil the objectives of the National Policy on Education, a Central Sector Scheme of Assistance for Strengthening of Culture and Values in Education is being implemented. Under this Scheme, financial assistance is given to Governmental and non-Governmental organisations, Panchayati Raj Institutions, etc. to the extent of 100 per cent of grant for the project proposals approved subject to a ceiling of ₹10 lakh for strengthening cultural and value education from pre-primary education system to higher education including technical and management education.

SANSKRIT

Sanskrit has played a vital role in the development of all Indian Languages and in the preservation of the cultural heritage of India. The Government of India gives

100 per cent financial assistance through State Governments for: a) Eminent Sanskrit scholars in Indigent Circumstances; b) Modernisation of Sanskrit Pathshalas; c) Providing facilities for teaching Sanskrit in High/Higher Secondary Schools; d) Scholarships to students studying Sanskrit in High and Higher Secondary schools; e) Various schemes for the promotion of Sanskrit; and f) improving the methodology of teaching Sanskrit in schools, Sanskrit Colleges/Vidyapeeths. Presently the Scheme is under revision.

Presidential Award of the Certificate of Honour is conferred on eminent scholars of Sanskrit, Pali, Arabic, and Persian in recognition of their lifetime outstanding contribution towards the propagation of these languages, every year on Independence Day. Maharshi Badrayan Vyas Samman has also been introduced for young scholars in the age group of 30-40 years who have made a breakthrough in interdisciplinary studies involving contribution of Sanskrit or ancient Indian wisdom, to the process of synergy between modernity and tradition.

The Maharshi Sandipani Rashtriya Veda Vidya Prathisthan, Ujjain is an autonomous organisation, which promotes: a) Preservation, conservation and development of the oral tradition of Vedic studies; b) Study of the Vedas through Pathshalas as well as through other means and institutions; c) Creation and promotion of research facilities; and d) Creation of infrastructure and other conditions for the collection of information and storage of relevant material.

Rashtriya Sanskrit Sansthan, New Delhi is an autonomous organisation established by the Government of India in the year 1970. It is the nodal agency for the propagation, promotion and development of Sanskrit Education in the country. It is fully funded by the Government of India in the Ministry of Human Resource Development, Department of Secondary and Higher Education. Rashtriya Sanskrit Sansthan has been granted the status of a Deemed to be University.

Rashtriya Sanskrit Vidyapeetha, Tirupati, provides courses of study from Prashasti (Intermediate) to Vidya Vardhi (Ph.D.). The Vidyapeetha has upgraded the Department of Pedagogy to an Institute of Advanced Studies in Education (IASE).

Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeetha, New Delhi provides courses of study from Shastri to Vidya Vachaspati (D.Lit.). From 1997-98 the Vidyapeetha started diploma in Vedic and refresher courses. Two degrees, namely, Vidya Vardhi (Ph.D) and Manad Upaadhi (Honorary D.Lit.) are also given by Vidyapeetha.

HIGHER EDUCATION

UNIVERSITY AND HIGHER EDUCATION

There were 20 Universities and 500 Colleges at the time of independence. At present, there are 504 universities and university-level institutions as on 31 December 2009 of which there are 243 State Universities, 53 private universities, 40 Central Universities, 130 Deemed Universities, 33 institutions of national importance established under Acts of Parliament, and five institutions established under various State legislations.

UNIVERSITY GRANTS COMMISSION

The University Grants Commission (UGC) which came into existence on 28 December 1953, became a statutory organisation by an Act of Parliament in 1956. It is a national body for the coordination, determination and maintenance of standards of university education. It serves as a coordinating body between the Union and State Governments

and the institutions of higher learning. It also acts as an advisory body to these Governments and institutions on issues relating to higher education.

Section 12 of the UGC Act provides that the Commission shall, in consultation with the universities concerned, take all such steps as it may think fit for the promotion and coordination of university education and for the maintenance of standards in teaching, examination and research. To teaching and research, extension was added as the third dimension of education by the Commission. For the purpose of performing its functions, the Commission may allocate and disburse, out of the Fund of the Commission, grants to universities and colleges for their maintenance and development; advise the Union Government, State Governments and Institutions of higher learning on the measures necessary for the promotion of university education and make Rules and Regulations consistent with the Act, etc.

The Commission consists of the Chairman, Vice-Chairman and 10 other members appointed by the Government of India. The executive head is Secretary.

The University Grants Commission has its Regional Offices at Hyderabad, Pune, Bhopal, Kolkata, Guwahati and Bangaluru. UGC has been allocated the general plan budget of ₹ 3439.95 crores for the year 2009-10. UGC has taken a new initiative 'Operation- Faculty Recharge' for augmenting the research and teaching resources of Universities.

AUTONOMOUS RESEARCH ORGANISATIONS

The Indian Council of Historical Research (ICHR), New Delhi, set up in 1972, reviews the progress of historical research and encourages scientific writing of history. It operates research projects, finances research projects by individual scholars, awards fellowships and undertakes publication and translation work.

The Indian Council of Philosophical Research (ICPR), functioning from 1977 with offices in New Delhi and Lucknow, reviews the progress, sponsors or assists projects and programmes of research in philosophy, and gives financial assistance to institutions and individuals to conduct research in philosophy and allied disciplines.

The Indian Institute of Advanced Study (IIAS), Shimla set up in 1965 is a residential centre for advanced research in humanities, social sciences and natural sciences. It is a community of scholars engaged in exploring new frontiers of knowledge aimed at conceptual development and offering interdisciplinary perspectives on questions of contemporary relevance.

The Indian Council of Social Science Research (ICSSR), New Delhi, is an autonomous body for promoting and coordinating social science research. Its main functions are to review the progress of social science research, give advice on research activities in government or outside, sponsor research programmes and give grants to institutions and individuals for research in social sciences.

The National Council of Rural Institute (NCRI) was set up in 1995 as an autonomous organisation fully funded by the Central Government to promote rural higher education on the lines of Mahatma Gandhi's revolutionary and voluntary agencies in accordance with Gandhian philosophy of education and promote research as tool of social and rural development.

Association of Indian Universities is a nodal agency for granting academic equivalence to degrees awarded by the accredited foreign universities and institutions for the purpose of admission to higher academic courses. It acts as a bureau of information exchange in higher education.

DISTANCE EDUCATION

INDIRA GANDHI NATIONAL OPEN UNIVERSITY

The Indira Gandhi National Open University (IGNOU) established in September 1985, is responsible for the promotion of Open University and distance education system in the educational pattern of the country and for coordination and determination of standards in such systems. The major objectives of the University include widening access to higher education to larger segments of the population, organising programmes of continuing education and initiating special programmes of higher education for specific target groups like women, physically challenged and people living in backward regions and hilly areas, such as NE, KBK, and those predominantly inhabited by tribals and SCs.

The IGNOU provides an innovative system for tertiary education and training. The system is flexible and open in regard to methods and pace of learning, combination of courses, eligibility for enrolment, age of entry, method of evaluation, etc. The University has adopted an integrated multimedia instructional strategy consisting of printed materials, audio-visual aids, educational radio and TV, teleconferencing and video conferencing supported by face-to-face counseling sessions through a network of study centres throughout the country. It conducts both continuous evaluation as well as term-end examinations.

The IGNOU introduced its programmes in 1987 and has so far launched 117 programmes consisting of more than 900 courses comprising Ph.D., Master's Degree Programmes, Advanced/Postgraduate Diploma, Diploma Programmes and Certificate Programmes, etc. During 2005 over 4.60 lakh students were registered for various programmes of study.

The University has established an extensive student support services network consisting of 60 regional centres, 7 sub-regional centres and 1298 study centres situated in different parts of the country. IGNOU has established 269 study centres for women, SC/ST and physically challenged persons. On 26 January 2001, IGNOU launched an education channel *Gyandarshan* which is now a 24-hour channel and has capacity for six simultaneous telecasts. In November 2001, IGNOU launched FM Radio Network for providing additional student support. As of now, 17 FM radio stations are functional and this number should increase to 40 FM stations in course of time. The launch of an exclusive educational satellite *Edusat* is a historic opportunity for the growth and development of distance education to create Educated India and meet the aspirations of our people and empower them through quality education. In the year 2005, the university established 100 *Edusat* supported Satellite Interactive Terminals (SITs) in its regional/study centres all over the country. Distance Education Council, established by the University as a statutory authority, is an apex body for coordination and determination of standards in distance education in the country.

TECHNICAL EDUCATION

The Technical Education System in the country covers courses in engineering, technology, management, architecture, pharmacy, etc. The technical education system in the country can be broadly classified into three categories: Central Government funded institutions, State Government/State-funded institutions and self financed institutions. In 2009-10, there were 65 centrally funded institutions in the country. The Ministry of Human Resource Development caters to programmes at undergraduate, postgraduate and research levels. The technical education system at

the central level comprises, among others, the following : a) The All India Council for Technical Education (AICTE), which is the statutory body for proper planning and coordinated development of the technical education system; b) Fifteen Indian Institutes of Technology (IITs); c) Seven Indian Institutes of Management (IIMs); d) One Indian Institute of Science (IISc), Bangalore; e) Five Indian Institutes of Science Education and Research and f) Twenty National Institutes of Technology (NITs) (converted from RECs with 100 per cent Central funding).

Initiatives have been taken to promote research and education in basic sciences in the country. The IIS, Bangalore was sanctioned a special grant of ₹ 100 crore to upgrade its infrastructure facilities, including laboratories. On the recommendation of the Scientific Advisory Council to the Prime Minister, two Indian Institutes of Science Education and Research have been approved at Pune and Kolkata. These Institutes will combine education in basic sciences at undergraduate and postgraduate level, with world class research facilities.

To enhance research productivity in Science and Technology Education and to improve quality of education, access to electronic journals and databases is being provided to all technical institutions. To benefit from lower costs, AICTE and Indian National Digital Library for Science and Technology (INDEST) have joined hands to form a combined AICTE-INDEST consortium.

In 2009-10, several measures were taken to implement the government's vision of providing increased access with equality and excellence. The setting up of new IITs, IIMS, IISEs, and assisting State governments in setting up new polytechnics and NITs are steps in this direction.

INDIAN NATIONAL COMMISSION FOR CO-OPERATION WITH UNESCO (INCCU)

India has been a member of the United Nations Educational, Scientific and Cultural Organisation (UNESCO) since 1946. The Government set up an interim Indian National Commission for Cooperation with UNESCO (INCCU) in 1949, which was later put on a permanent footing in 1951. The Commission consists of five Sub-Commissions namely, Education, Natural Science, Social Sciences, Culture and Communication.

The main objective of the Commission is to advise the Government in matters falling in the domain of UNESCO and to play a role in UNESCO's work, particularly in the formulation and execution of its programmes. The Minister for Human Resource Development is the President of the Commission and the Secretary of the Government of India in the Department of Secondary and Higher Education is its Secretary General. The membership of the Commission is of two categories; (i) Individual and (ii) institutional members distributed among its five Sub-Commissions.

The National Commission acts as an advisory, coordinating and liaison agency at the national level in respect of all matters within the competence of UNESCO. It has been playing an important role particularly in the formulation and execution of various programmes in collaboration with UNESCO Secretariat as well as the National Commissions of Asia and the Pacific region.

BOOK PROMOTION

National Book Trust, India: The National Book Trust, India, an autonomous organisation under the Ministry of Human Resource Development, was established in 1957. The activities of the NBT are : (i) publishing, (ii) promotion of books and

reading, (iii) promotion of Indian books abroad, (iv) assistance to authors and publishers, and (v) promotion of children's literature. It produces books in Hindi, English and fifteen other major Indian languages under its various series and in Braille. Every alternate year, NBT organises the World Book Fair in New Delhi, which is the largest book fair in Asia and Africa. The Trust also observes 14-20 November every year as National Book Week. The trust organised 16 book fairs and participated in 8 international book fairs during 2009.

COPYRIGHT

Administering the Copyright Act, 1957, one of the several legislations in India in the area of Intellectual Property Rights (IPRs), is the responsibility of the Union Ministry of Human Resource Development, Department of Secondary and Higher Education. The Copyright Office was established in January 1958 to register copyright of works under different categories. As per Section 33 of the Copyright Act, the Central Government also registers copyright societies for doing copyright business. The Indian Copyright Act, 1957 was comprehensively amended in 1994 taking into account the technological developments. The amended Act was brought into force on 10 May 1995. The Act as further amended in 1999, came into force on 15 January 2000. Under the provisions of Section 11 of the Copyright Act, 1957, the Government of India has constituted a Board to be called the Copyright Board. The Copyright Board is a quasi-judicial body consisting of a Chairman and not less than two or more than fourteen other members. The Chairman and other members of the Board are appointed for a term of five years. The Copyright Board was reconstituted for a term of five years with effect from 22 February 2001. The Board hears cases regarding rectification of copyright registration, disputes in respect of assignment of copyright and granting licences in works withheld from public.

Copyright Enforcement in India : The Indian Copyright Act, 1957, provides penalties for the offences committed under the Copyright Act and empowers the police to take necessary action. The actual enforcement of the law is the concern of the State Governments. However, during the last few years, the Central Government has taken various steps to improve the enforcement of the Copyright Act to curb piracy. These measures include the setting up of a Copyright Enforcement Advisory Council (CEAC), which has members from all concerned departments and representatives of industry to regularly review the implementation of the Copyright Act including the provisions regarding anti-piracy. Several other measures taken by the Central Government include persuading the State Governments for : (i) the setting up of Special Cells in State Governments for enforcement of Copyright Laws; (ii) appointment of nodal officers in the States for facilitating proper coordination between the industry organisations and enforcement agencies; (iii) holding of seminars/workshops, etc., for sensitising the public about Copyright Laws; and (iv) Collective Administration by Copyright Societies.

Cooperation with WIPO : India is a member of the World Intellectual Property Organisation (WIPO) since 1976, a specialised agency of the United Nations which deals with copyright and other intellectual property rights and plays an important role in all its deliberations.

As per recent amendments in the Government of India (Allocation of Business) Rules, 1961 the work relating to coordination with WITO has been transferred to Ministry of Commerce and Industry, Department of Industrial Policy and Promotion.

General Agreement on Trade in Services (GATS) : The last round of General

Agreement on Tariffs and Trade (GATT) in 1994 gave rise to multilateral agreement on Trade under the World Trade Organisation (WTO). Prior to emergence of the WTO, there was no multilateral agreement on services. The WTO came into existence on 1 January 1995. The next round of negotiations in 1996 led to a comprehensive agreement on international trade in services. The objective of the agreement is the progressive liberalisation of trade in services. It is to provide secure and more open market in services in a manner similar as the GATT has done for trade in goods. Education is one of the twelve services, which are to be negotiated under the General Agreement on Trade in Services (GATS). Education has been divided into five categories for the purposes of negotiations: Higher Education, Secondary Education, Primary Education, Adult Education and Other Education.

GATS prescribes the following four modes of Trade in Services including Education Services: (i) Cross-Border Supply of a service includes any type of course that is provided through distance education or the internet, any type of testing service, and educational materials which can cross national boundaries; (ii) Consumption Abroad mainly involves availing services abroad, i.e., students going abroad and is the most common form of trade in educational services; (iii) Commercial Presence refers to the actual presence of foreign investors in a host country. This would include foreign universities setting up courses or entire institutions in another country; and (iv) Presence of Natural Persons refers to the ability of people to move between countries to provide educational services.

Under Education Services the Indian revised offer was to open up the Higher Education Sector with the condition that Higher Education Institutions can be permitted to charge fees to be fixed by an appropriate authority provided such fees do not lead to charging capitation fees or to profiteering. The provision of the Higher Education Services would also be subject to such regulations, already in place or to be prescribed by the appropriate regulatory authority.

MAJOR INITIATIVES

- Examination Reforms in accordance with NCF-2005 include making the class X examination optional, thus permitting students continuing in the same school (and who do not need a Board Certificate) to undergo internal school assessment instead.
- It has been decided to replace the present system of awarding marks by grades in all subjects in class X Board Examination to be conducted by CBSE in 2010. Such grading would be continued for on demand examination of 2011 and beyond and also for CCE.
- There is an attempt to formulate a policy framework for PPP in school education.
- On the recommendations of Yash Pal Committee and National Knowledge Commission, a proposal for establishment of an autonomous overarching National Commission for higher education and research for prescribing standards of academic quality and defining policies for advancement of knowledge in higher educational institutions has been initiated.
- A proposal to establish 14 innovation universities aiming at world class standards for which a concept has been finalized by the Ministry.
- It has been decided by the UGC to create Equal Opportunity Offices in all universities which have been declared fit to receive grants under section

12-B of the UGC Act, 1956. An amount of ₹ 3 lakh per university has been sanctioned to each of the 167 eligible universities.

- A new scheme has been introduced to provide central assistance for setting up of a model degree college in each of the identified 374 educationally backward districts where gross enrolment ratio for higher education is less than the national GER.
- BSNL-MTNL combine has been entrusted the job of giving broadband connectivity to colleges/universities departments and this work is expected to be completed soon. E-learning material such as NPTEL, Video lectures, etc. will be provided to college free of cost under the National Mission on Education through ICT.
- Arrangements have been made for the direct credit of merit scholarships in the bank accounts of 41000 boys and 41000 girls every year under the new Merit Scholarship Scheme for students in the universities and colleges.

11 Energy

ENERGY is an essential input for economic development and improving the quality of life. Development of conventional forms of energy for meeting the growing energy needs of society at a reasonable cost is the responsibility of the Government. Development and promotion of non-conventional/alternate/new and renewable sources of energy such as solar, wind and bio-energy, etc., are also getting sustained attention. Nuclear energy development is being geared up to contribute significantly to the overall energy availability in the country.

POWER

Power development in India commenced at the end of the 19th century with the commissioning of electricity supply in Darjeeling during 1897, followed by the commissioning of a hydropower station at Sivasamudram in Karnataka during 1902. In the pre-Independence era, the power supply was mainly in the private sector, that too restricted to the urban areas. With the formation of State Electricity Boards during Five-Year Plans, a significant step was taken in bringing about a systematic growth of power supply industry all over the country. A number of multi-purpose projects came into being, and with the setting up of thermal, hydro and nuclear power stations, power generation started increasing significantly.

The Ministry of Power is primarily responsible for the development of electrical energy in the country. The Ministry is concerned with perspective planning, policy formulation, processing of projects for investment decisions, monitoring of the implementation of power projects, training and man-power development and the administration and enactment of legislation with regard to thermal and hydro power generation, transmission and distribution. In all technical matters, the Ministry of Power is assisted by the Central Electricity Authority (CEA).

The construction and operation of generation and transmission projects in the Central sector are entrusted to Central Sector Power Corporations, viz., the National Thermal Power Corporation (NTPC), the National Hydroelectric Power Corporation (NHPC), the North-Eastern Electric Power Corporation (NEEPCO), and the Power Grid Corporation of India Limited (PGCIL). The Power Grid is responsible for all the existing and future transmission projects in the Central Sector and also for the formation of the National Power Grid. Two joint-venture power corporations, namely, Satluj Jal Vidyut Nigam (SJVN) (formerly known as NJPC) and Tehri Hydro Development Corporation (THDC) are responsible for the execution of the Nathpa Jhakri Power Project in Himachal Pradesh and Projects of Tehri Hydro Power Complex in Uttarakhand respectively. Three statutory bodies, i.e., the Damodar Valley Corporation (DVC), the Bhakra-Beas Management Board (BBMB) and Bureau of Energy Efficiency (BEE), are also under the administrative control of the Ministry of Power. Programmes of rural electrification are provided financial assistance by the Rural Electrification Corporation (REC). The Power Finance Corporation (PFC) provides term-finance to projects in the power sector. The autonomous bodies (societies), namely, Central Power Research Institute (CPRI) and the National Power Training Institute (NPTI) are also under the administrative control of the Ministry of Power. A Power Trading Corporation has also been incorporated primarily to support

the Mega Power Projects in private sector by acting as a single entity to enter into power Purchase Agreements (PPAs).

Capacity Addition

To meet the projected power requirement by 2012, an additional capacity of 1,00,000 MW is required during the 10th and 11th Five-Year Plans. The capacity addition achieved during 10th Plan is 21,180 MW. The addition proposed during 11th Plan by Planning Commission is 78,700 MW comprising 15,627 MW hydro, 59,693 MW thermal and 3,380 MW Nuclear. The Central Sector would contribute 36,874 MW (Thermal 24,840 MW), the State Sector 26,783 MW (Thermal 23,301 MW) and Private Sector 15,043 MW (Thermal 11, 552 MW) in the 11th Plan. This has been revised to 62,374 MW at the time of Mid-Term Appraisal comprising 21,222 MW in Central Sector, 21,355 MW in State Sector and 19,797 MW in Private Sector.

The installed power generation capacity in the country has increased from about 1,400 MW in 1947 to 1,63,669.80 MW as on 31 July 2010 comprising 37,033.40 MW hydro, 1,05,646.98 MW Thermal including gas & diesel, 4,560 MW Nuclear based power plants and 16,429.42 MW from Renewable Energy Sources including wind.

Power generation

Power generation during 2009-10 was 771.55 BU comprising 640.87 BU Thermal, 106.68 BU from Hydro, 18.63 BU Nuclear and 5.36 BU import from Bhutan. The target of power generation for 2010-11 has been fixed at 830.75 BU. The Plant Load Factor (PLF) has shown a steady improvement over the years and has improved from 52.8 per cent in 1990-91 to 77.53 per cent in 2009-10.

50,000 MW Hydro Electric Initiative

Under the 50,000 MW initiative launched by the Government in 2003-04, 162 hydro-electric projects spreading in 16 states for the purpose of preparation of Preliminary Feasibility Reports (PFRs) were taken up by CEA as nodal agency. The PFRs were completed in September 2004 for all these projects with an installation of 47,930 MW.

As a follow up, preparation of PFRs of implementation/preparation of DPRs for attractive schemes selected from PFR schemes has already been taken up thereby providing a shelf of projects for execution in the near future. At the first instance, based on their preliminary techno-economic analysis, 77 schemes (33951 MW) whose first year tariff works out below ₹ 2.50 /kWh have been considered as low tariff H.E. schemes and have been selected for taking up of detailed survey and investigation and preparation of DPR/implementation.

Upto June, 2010, DPRs for 23 schemes (8,643 MW / Revised capacity 8,262 MW) have already been prepared. The work of survey & investigation is under progress for another 19 schemes (13,959 MW) and their DPRs are likely to be prepared by 12 March.

Hydro Capacity Addition during 12th Plan

As per the studies carried out by CEA to assess the requirement of additional capacity during the 12th Plan (2012-17), the requirement of installed capacity to meet the all India peak demand and energy requirement at the end of 12th plan would require a capacity addition of about 1,00,000 MW in the 5 year period of 2012-17.

To meet the requirement of additional capacity during the 12th Plan (2012-17), a shelf of 87 hydro projects of capacity 20,334 MW had been tentatively identified as

candidate projects. Action has been initiated to take up / complete their survey and investigation/DPR preparation and other pre-construction activities well in advance so as to achieve the ambitious programme of capacity addition in the coming plan.

Setting up of Ultra Mega Power Project

Ultra Mega Power Projects (UMPPs) are being promoted with a view to providing power at a reasonable rate and ensuring fast capacity addition by the Central Government as an initiative facilitating the development of Ultra Mega Power Projects (UMPP) of 4000 MW capacity each under tariff based international competitive bidding route. Project specific Shell Companies (Special Purpose Vehicles) as 100 per cent subsidiaries of Power Finance Corporation Limited have been created for carrying out developmental work consisting of tie up of inputs/clearances and the bidding process for selection of developers for the UMPPs.

So far four UMPPs namely Sasan in M.P., Mundra in Gujarat, Krishnapatnam in Andhra Pradesh and Talaiya in Jharkhand have been awarded and transferred to the developers selected through tariff based competitive bidding. One unit of 660 MW of Sasan UMPP and two units of 800 MW each of Mundra UMPP are expected to be commissioned in 11th Plan.

In regard to four other UMPPs namely UMPP in Chattisgarh, Orissa, Tamil Nadu, and Second UMPP of Andhra Pradesh, the sites have been finalized and the project development work is in advance stage. The request for Qualification (RFQ) bids have been issued for the UMPP proposed in Chhattisgarh and Orissa.

CENTRAL ELECTRICITY AUTHORITY

Central Electricity Authority (CEA), a statutory organisation constituted under Section 3(1) of the Electricity Supply Act, 1948 which has been superseded by Section 70 (1) of Electricity Act, 2003, plays an important role in formulating policies and programmes for power development in the country and in planning and coordinating various development activities in the Power Sector. The CEA advises the Central Government on matters relating to the National Electricity Policy, formulates short-term and perspective plans for development of the electricity system and coordinates the activities of the planning agencies for the optimal utilisation of resources to subservise the interests of the national economy and to provide reliable and affordable electricity for all consumers.

Under the Electricity Act, 2003, the CEA makes regulations/standards on matters such as construction of electrical plants, electric lines and connectivity to the grid, installation and operation of meters, concurrence of hydro-electric schemes, safety and grid standards. It also specifies measures relating to safety with respect to electricity supply. This will inculcate higher efficiency in all fields of the power sector.

The CEA is responsible for the concurrence of hydro power development schemes of the Central, State and Private sectors taking into consideration the best ultimate development of the river or its tributaries for power generation, consistent with the requirement of drinking water, irrigation, navigation, flood control or for other public purposes. It also makes studies for the optimum location of dams and other river works keeping in view the norms regarding dam design and safety.

It promotes and assists in the timely completion of schemes and projects for improving and augmenting the electricity system by carrying out a close monitoring of the construction of generation and transmission projects to ensure their timely

completion by identifying bottlenecks and problem areas and initiating remedial measures/actions. It lays stress on improving the performance of existing power stations through better O&M practices, renovation and modernisation and life extension programmes. It is also charged with the responsibility of monitoring Schemes/Projects for their timely completion.

Collection and recording the data concerning the generation, transmission, trading, distribution and utilisation of electricity and carrying out studies relating to cost, efficiency, competitiveness, etc., are important functions of the CEA. It makes public from time to time information secured under the Electricity Act, 2003 and provides for the publication of reports and investigations.

The CEA advises Central Government, State governments and Regulatory Commissions on all technical matters relating to generation, transmission and distribution of electricity. It also advises State Governments, licensees or generating companies on such matters which shall enable them to operate and maintain the electricity system under their ownership or control in an improved manner and where necessary, in coordination with any other Government, licensee or the generating company owning or controlling another electricity system.

The CEA plays a lead role in promoting an integrated operation of Regional Grid systems and the evolution of a National Grid. The Eastern, North-Eastern and Western regions have been integrated and are operating in a synchronous mode. The Eastern Region is connected with the Northern as well as the Southern Region through HVDC back-to-back links. Similarly, the Western Region is also connected with the Northern and the Southern Regions through the same arrangements. The CEA facilitates exchange of power within the country from surplus to deficit regions and with neighbouring countries for mutual benefits.

It promotes research in matters affecting the generation, transmission, distribution and trading of electricity; carries out, or causes to be carried out, any investigation for the purposes of generating or transmitting or distributing electricity and promotes measures for advancing the skills of persons engaged in the electricity industry. It actively participates in power supply restoration process in case of occurrence of unfortunate incidents of destruction caused due to drought/cyclone/floods/tsunami, etc., in various parts of the country.

The CEA makes a significant contribution to a number of professional fora in India as well as abroad like the Conference International Des Grands Research Electriques (CIGRE), the Bureau of Indian Standards (BIS), the Central Board of Irrigation and Power (CBI&P), etc. The CEA renders consultancy services in the planning and design of hydro, thermal and transmission projects.

THE ELECTRICITY ACT, 2003

The Electricity Act, 2003 has been enacted and the provisions of this Act have been brought into force with effect from 10 June 2003 (with this, the Indian Electricity Act, 1910, the Electricity (Supply) Act, 1948 and the Electricity Regulatory Commissions Act, 1998 stand repealed). The main features of the Act are as follows:

- (i) Generation has been delicensed and captive generation freely permitted. Hydro projects would, however, need concurrence from the Central Electricity Authority.

- (ii) No licence required for generation and distribution in rural areas.
- (iii) Transmission Utility at the Central as well as State level, to be a government company – with responsibility for planned and coordinated development of the transmission network. Provision for private licensees in transmission.
- (iv) Open access in transmission with provision for surcharge for taking care of current level of cross subsidy with the surcharge being gradually phased out.
- (v) Distributing licensees would be free to undertake generation, and generating companies would be free to take up distribution.
- (vi) The State Governments are required to unbundle the SEBs. However, they may continue with them as distribution licensees and State Transmission Utilities.
- (vii) Setting up of the State Electricity Regulatory Commission (SERCs) made mandatory.
- (viii) An Appellate Tribunal to hear appeals against the decision of the CERC and SERCs.
- (ix) The SERCs are required to permit open access in distribution in phases with surcharge for current level of cross subsidy to be gradually phased out along with cross subsidies and obligation to supply.
- (x) Metering of electricity supplied, made mandatory.
- (xi) Provisions relating to theft of electricity made more stringent.
- (xii) Trading as a distinct activity recognised with the safeguard of the Regulatory Commissions being authorised to fix ceilings on trading margins, if necessary.
- (xiii) For rural and remote areas stand-alone systems for generation and distribution permitted.
- (xiv) Thrust to complete rural electrification and provide for management of rural distribution by panchayats, cooperative societies, non-government organizations, franchisees, etc.
- (xv) The Central Government to prepare a National Electricity Policy and Tariff Policy.
- (xvi) The Central Electricity Authority to prepare a National Electricity Plan.

Formulation of Rules and Regulations by the Central Electricity Authority : Section 177 of the Electricity Act, 2003 requires the Central Electricity Authority to make regulations consistent with the Act and rules to carry out provisions of this Act. The following six regulations have already been notified:-

- (i) Central Electricity Authority (Installation of Operations & Meters) Regulations, 2006 (under Section 177 (2-c) read with Section 55).
- (ii) Central Electricity Authority (Procedure for Transaction of Business) Regulations, 2006 (under Section 177 (2-d) read with Section 70(9)).
- (iii) Central Electricity Authority (Technical Standards for Connectivity to the Grid) Regulations, 2006 (under Section 177 (2-e) with Section 73(b)).
- (iv) Central Electricity Authority (Furnishing of Statistics, Returns & Information) Regulations, 2007 (under Section 177 (2-f) read with Section 74).
- (v) Central Electricity Authority (Grid Standards) Regulations, 2010 (under Section 177 (2) (a) read with Section 34).

- (vi) Central Electricity Authority (Safety Requirements for Construction, Operation & Maintenance of Electrical Plants & Electric Lines) Regulations 2010 (under Section 177 read with section 73 (c)).

The following two regulations are under final stages of notification:

- (i) Central Electricity Authority (Measures relating to safety and electric supply) Regulations (under section 177 (2) (b) read with section 53).
- (ii) Central Electricity Authority (Technical Standards for Construction of Electrical Plants & Electric Lines) Regulations (under section 177(2) (e) read with section 73(b)).

Appellate Tribunal for electricity

The Central Government established Appellate Tribunal for Electricity under Section 110 of the Electricity Act, 2003 on 7 April 2004. The headquarters of the Appellate Tribunal is at Delhi. The Appellate Tribunal will hear appeals against orders of the Regulatory Commissions/ Adjudicating Officers.

National Electricity Policy

The National Electricity Policy has been notified by the Government under the Act. Competitive bidding guidelines have been issued by the Government. The Tariff Policy has been notified.

Anti-theft legislation

The States of Andhra Pradesh, Karnataka, Madhya Pradesh, Uttar Pradesh, West Bengal, Maharashtra, Kerala, Gujarat, Bihar, and Punjab have passed/drafted anti-theft laws.

As per the provisions of Section 153 of the Electricity Act, 2003, Special courts dealing with power theft have been set up in the States of Assam, Andhra Pradesh, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Meghalaya, Manipur, Nagaland, Orissa, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, Uttarakhand, West Bengal and Delhi.

Redressal of grievances of Consumers and appointment of an Ombudsman

As per the provision of the Electricity Act, 2003, every distribution licensee shall have to establish a forum for redressal of grievances of the Consumers in accordance with the guidelines as specified by the State Electricity Regulatory Commission. Consumer Grievances Redressal Fora have been established in 24 States by the Distribution Companies as per Section 42 (5) of the Act. Every State Electricity Regulatory Commission shall appoint or designate an Ombudsman as per Section 42(6) of the Act. Any consumer who is aggrieved by the non-redressal of his grievances may make a representation for the redressal of his grievances to the Ombudsman. So far, 24 State Electricity Regulatory Commissions have appointed or designated an Ombudsman.

ACCELERATED POWER DEVELOPMENT AND REFORMS PROGRAMME

In order to improve sub-transmission and distribution system including reduction of Transmission & Distribution losses, Central Government had given support in the 10th plan in the form of APDRP scheme. There were two components of the scheme—

investment component to support capital investment and an incentive component for actual cash loss reduction. Up to November 2009, total investment component of ₹ 7675.51 crore and total incentive component of ₹ 2879.73 crore has been released under APDRP.

The present status of restructured APDRP for 11th Plan is as follows:

Re-structured APDRP for XI Plan

Cabinet Committee on Economic Affairs (CCEA) approved the 'Restructured APDRP' for XIth Plan as a Central Sector Scheme in its meeting held on 31 July 2008. The focus of the programme is on actual, demonstrable performance in terms of AT&C loss reduction. The aim of the scheme is to reduce the AT&C losses up to 15 per cent in project areas.

Projects under the scheme to be taken up in two parts. Part-A is the projects for establishment of baseline data and IT applications for energy accounting/ Auditing & IT based consumer service centres and Part-B is regular distribution strengthening projects.

The programme size is ₹51,577 crore. Expected investment in Part-A (Baseline System) would be ₹10,000 crore and that in Part-B would be ₹ 40,000 crore.

Power Finance Corporation (PFC) is the nodal agency for operationalising the programme.

To facilitate the state utilities for expediting the implementation of R-APDRP, Ministry finalized the model DPRs, empanelled the IT Consultants, IT implementing Agencies, finalized the model request of Proposal (Rfp) for appointment of above consultants and agencies.

Present Status of R-APDRP

1401 Projects at the cost of ₹ 5305.23 crore have been approved to twenty-nine states/ UTs (Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chandigarh, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, J&K, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Puducherry, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh and West Bengal) under Part-A. This includes Part-ASCADA projects worth ₹ 150.90 crore for 5 towns of Rajasthan.

644 Projects worth ₹ 10859.33 crore have been approved to thirteen States (Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Sikkim, Tamil Nadu, U.P. and West Bengal) under Part-B.

Selection of sites for Thermal Power Projects

In the context of the need to set up additional thermal power stations to meet the power requirements of the country up to the year 2012 AD and beyond, the CEA had in September 2001 constituted a committee under the Chairmanship of Member (Thermal) and consisting of members from different Ministries/Depts./SEBs, etc., for selection of sites for large coastal/Pithead and other Thermal Power Stations. As the process of selection of sites is of continuous nature, the above mentioned Committee has been converted into a Standing Committee. Teams consisting of the members of the Committee from the CEA, Planning Commission, MoE&F, CMPDI, Railways, etc.,

are being constituted for visiting from time to time the sites tentatively identified by the State agencies. These teams also interact with various States/Central departments for assessing the availability of various inputs like land, water, fuel, etc.

Based on the site visits of the Site Selection Committee and also reports obtained by CEA with assistance of CMPDI/NRSA through satellite mapping, a large shelf of potential sites has been created. Many sites from this shelf have been identified for benefits during the 11th Plan. The reports of CMPDI & NRSA have been forwarded to concerned State Govts/NTPC for development of the identified sites. The NRSA reports for coastal sites have also been given to the site selection committee of Nuclear Power Plants. CEA has awarded additional study to M/s CMPDI on 26 March 2007 for identification of coal based potential pithead site using remote sensing techniques near 12 coal blocks located in South Karanpura, Wardha Valley and Talcher coalfields. The study is completed and the final report of the study identifying 28 new pithead sites in the states of Jharkhand, Orissa and Chhattisgarh has been submitted by CMPDI. Potential sites were visited by the team of engineers in the states of Jharkhand (7 sites), Orissa and Chhattisgarh (14 sites). Final report of the study submitted by CMPDI in February 2009 said the sites are available for development.

The study regarding restoration of MDDL of Rihand Reservoir to the designed level, its implication on the existing power plants and additional water availability has been awarded to IIT, Roorkee. One more study was awarded to CMPDI in February 2009 for consultancy service for siting of coal based power stations near load centre.

PRIVATE SECTOR PARTICIPATION IN POWER SECTOR

THERMAL GENERATION PROJECTS

With the enactment of Electricity Act, 2003, a whole new system was evolved where private players were invited to be an active participant in the power sector. The Electricity Act, 2003 has created a legal framework for development of electricity supply industry through liberalized generation, market development and providing non-discriminatory open access to the generators and consumers. In order to achieve these objectives, the Government has issued National Electricity Policy and Tariff Policy. In order to facilitate procurement of power through competitive bidding, the Government has issued guidelines for tariff based competitive bidding. The Standard Bid Documents for procurement of power under long term and medium term PPAs have been notified for Case I and Case II bidding. The Government has also set up Special Purpose Vehicle under Power Finance Corporation (PFC) for collective procurement of power on behalf of the distribution utilities by inviting tariff based bids for supplying power from ultra mega power projects. Procurement of power through tariff based bidding does not require any upfront capital investment by the Government and the responsibility of mobilizing financial resources and technical resources for operating generating facilities rests with the projects developer/independent power producer.

The private sector has responded enthusiastically to the opening up of the power market and a substantial amount of generating capacity is coming up through IPPs in coal, lignite, gas and hydro power projects. Government of India is making its best efforts to facilitate this process to help the independent power producers to overcome various challenges in the way of project implementation. The private sector contributed 2,670 MW to generation capacity during period 2002-07. Since then capacity of 6,055 MW has been commissioned and another about 16266 MW capacity

is under construction and likely to be commissioned by 2012. The private sector is likely to contribute substantial generating capacity during 12th Plan period (2012-17).

Transmission Sector

Efforts are being made to bring competition in development of inter-State transmission system through private sector participation. In this direction, two schemes namely - 'Western Region System Strengthening-II-B' and 'Western Region System Strengthening II-C' were taken up for implementation through 100 per cent private participation. The process of selection of the private sector company was coordinated by PGCIL under directions of CERC. The Transmission Service Agreement (TSA) for the schemes have been signed and the schemes are being implemented by Reliance Power Transmission Limited.

For encouraging and streamlining the process of private sector participation, Government of India brought out 'Guidelines for encouraging competition in development of Transmission projects', 'Guidelines for Tariff based Competitive bidding for Transmission services', Standard Request for Qualification (RFQ) document for selection of transmission Service provider, and (TSA). An Empowered Committee for selection of projects and monitoring their implementation was also constituted.

Power Finance Corporation (PFC) and Rural Electrification Corporation (REC) have been nominated as nodal agencies to act as Bid Process Coordinators (BPC) for the selection of Transmission Service Providers.

LoIs have been issued to the successful bidders for

- Transmission system enabling import of NER/ER Surplus power by NR.
- North Karanpura Transmission System.
- Talchar-II Transmission scheme.

RFQs have been issued for three transmission projects namely

- System Strengthening for WR.
- System Strengthening Commission for WR & NR, and
- Transmission system associated with Krishnapattanam - UMPP - Synchronous inter connection between SR & WR.

Revised Mega Power Policy

Mega Power Policy was introduced in November 1995 for providing impetus to development of large size (mega) power projects in the country and derive benefit from economies of scale. These guidelines were modified in 1998 and 2002 and were last amended in April 2006 to encourage power development in Jammu & Kashmir and the North-Eastern region.

However, in the wake of several important statutory and policy level changes in the power sector, Ministry of Power revisited some of the provisions of the present Mega Power policy in December 2009.

The modified policy seeks to rationalize the procedure for grant of mega certificate and facilitate quicker capacity addition. The mega power policy would have positive impact in the form of lower generation cost and resultant cost of power purchased by distribution utilities and has liberalized many provisions including

aligning the requirements of PPA as per National Electricity Policy and National Tariff Policy.

Automatic approval for FDI

Automatic approval (RBI route) for 100 per cent foreign equity is permitted in generation, transmission, and distribution and trading in power sector without any upper ceiling on the quantum of investment.

As per information received from Central Electricity Authority (CEA), power projects totalling to 15043 MW (Thermal: 11552 MW and Hydro : 3491 MW) in private sector have been targeted for commissioning during the 11th Plan. Out of the above, a thermal capacity addition of about 5920 MW has been achieved till 1 April, 2010.

PUBLIC SECTOR UNDERTAKINGS AND OTHER ORGANISATIONS

NATIONAL HYDROELECTRIC POWER CORPORATION LTD.

NHPC Limited (earlier known as National Hydroelectric Power Corporation Ltd.) is a Schedule "A" Mini Ratna Enterprise of the Government of India with an authorised share capital of ₹ 15,000 crore and an investment base of more than ₹ 36,250 crore. NHPC was set up in 1975 and has now become the largest organization for hydro power development in India, with capabilities to undertake all the activities from conceptualization to commissioning of Hydro Projects. The main objects of NHPC include, to plan, promote and organize an integrated and efficient development of power in all its aspects through Conventional and Non Conventional Sources in India and abroad and transmission, distribution, trading and sale of power generated at stations. The Company is also listed with the Bombay Stock Exchange and National Stock Exchange. NHPC has signed an MoU with Rural Electrification Corporation Ltd. (REC) for accelerated electrification of one lakh villages and provide connection to one crore households and with the Ministry of Rural Development for development and maintenance of rural access roads in six districts of Bihar. Works are in progress on these schemes.

NHPC has so far commissioned 13 hydroelectric projects with an aggregate installed capacity of 5,175 MW which includes 2 projects with total installed capacity of 1,520 MW in Joint Venture with Govt. of Madhya Pradesh. In addition to above, NHPC has commissioned 3 projects namely Kalpong (5.25 MW) in Andaman & Nicobar Islands, Sippi (4 MW) and Kambang (6 MW) in Arunachal Pradesh on turnkey deposit basis. NHPC has also commissioned 2 projects viz. Devighat in Nepal with a capacity of 14.1 MW and Kurichu in Bhutan with a capacity of 60 MW the aggregate capacity of 74.1 MW on deposit / turnkey basis.

NATIONAL THERMAL POWER CORPORATION LIMITED

The NTPC Ltd. (formerly National Thermal Power Corporation Ltd.) was incorporated in November 1975 with the objective of planning, promoting and organising an integrated development of thermal power in the country. The company has now been renamed as NTPC Ltd. In line with the changes taking place in the business portfolio of the company that transformed the company into an integrated Power Company it has now a presence across the entire energy value chain.

NTPC Limited, a schedule 'A' Navratna Company of the Government of India, is the single largest power generator in India with comprehensive in-house capabilities in building and operating power projects. NTPC generation capacity was 18.82 per

cent of country's installed capacity as on 31 March 2009. NTPC accounted for 28.60 per cent of the entire electricity generated in the country during the year 2008-09. Current operating capacity of NTPC is 30644 MW comprising 25209 MW coal based stations and 5,435 MW gas based stations. This capacity also includes 2,294 MW under joint ventures. Another 17930 MW generating capacity is under construction, including 3 hydro projects. During the year 2009-10 (up to 30 November 2009), a record generation of 1,40,831 Million Units was achieved, registering an increase of 7.25 per cent over generation of 1,31,312 Million Units during same period in 2008-09.

During the year 2009-10 (up to 30 November 2009) THIRTEEN NTPC coal stations achieved more than 85 per cent PLF, including EIGHT above 90 per cent and TWO above 95 per cent; Dadri (Coal) (98.91 per cent), Korba (95.89 per cent), Unchahar (94.61 per cent), Simhadri (94.34 per cent), Vindhyachal (94.14 per cent), Tanda (92.24 per cent), Rihand (92.05 per cent), Ramagundam (91.67 per cent), Sipat (89.92 per cent), Singrauli (88.58 per cent), Badarpur (87.51 per cent), Talcher (Kaniha) (85.67 per cent) and Talcher (Thermal) (85.92 per cent).

During the year 2009-10 (April to September 2009), NTPC recorded a total income of ₹ 24302.75 crore (audited), and net profit after tax of ₹ 4,345.57 crore (audited), registering an increase of 17.62 per cent and 13.25 per cent respectively over the same period last year. During the year 2009-10 (till November 2009), 500 MW generation capacity was commissioned comprising one unit of 500 MW (unit No. 7) at Kahalgaon-II. The company is at present implementing eighteen power projects with a capacity of 17930 MW.

An MOU has been signed amongst NTPC and the Govt. of Chattisgarh for setting up 4000 MW Lara Power Project in the State of Chattisgarh as a Regional Power Project of NTPC. An MoU has been signed amongst NTPC Ltd., Govt. of Madhya Pradesh and Madhya Pradesh Power Trading Co. Ltd. for setting up 2,640 MW Gadarwara Power Project in Narsinghpur District of MP as a Regional Power Project of NTPC. Mining Plan for Dulanga (7 MTPA) coal blocks has been approved by MOC whereas for Talaipalli coal block (18 MTPA), the same has been submitted to MOC for approval.

Twenty Year Fuel Supply Agreements (FSAs) have been signed with subsidiary coal companies of Coal India Limited (CIL) for long term coal supply to NTPC coal based power stations. Joint venture Agreement (JVA) has been signed between NTPC and CIL for promotion of one or more JV(s) for jointly undertaking the Development, Operation & Maintenance of Coal Blocks (Brahmini and Chichro-Patsimal in Jharkhand) and integrated Power Projects.

Government of India has allotted 4.46 MMSCMD of KG D6 Gas for its existing gas based power plants in NCR. NTPC has also sought allocation of 35.5 MMSCMD of KG D6 Gas for setting up 7000 MW of expansion/new gas based power stations. This is in addition to 12 MMSCMD of gas at USD 2.34/ MMBTU sought by NTPC for taking up expansion of Kawas and Gandhar projects. As per provisional results of NELP-VIII bidding of GOI declared by DGH, NTPC along with ONGC and other consortium partners have won 3 Petroleum Blocks.

NTPC has also won a Block in the Cambay basin with 100 per cent participating interest as Operator. During the year 2009-10 (till November 2009) NVHN has traded

3201 MUs of power and has transacted business with more than 30 State/Distribution Utilities. Joint Venture Company National Power Exchange Limited, with NHPC, PFC and TCS, has received in-principle approval to set up and operate NPEX, the power exchange to facilitate trading of electrical power including ancillary services. NTPC has acquired 44.6 per cent of paid-up capital of Transformers and Electricals Kerala Limited (TELK) from the Government of Kerala. TELK is engaged in manufacturing and repair of heavy duty transformers.

Joint Venture Company National High Power Test Laboratory Ltd. (NHPTL), with PGCIL, NHPC and DVC, has been formed for setting up a High Power Test Laboratory for Short Circuit Testing. Joint Venture Company Energy Efficiency Services Limited (EESL), with PFC, PGCIL and REC, has been formed to carry on and promote the business of Energy Efficiency and climate change including manufacture and supply of energy efficiency services and products.

RAJIV GANDHI GRAMEEN VIDYUTIKARAN YOJANA

A scheme “Rajiv Gandhi Grameen Vidyutikaran Yojana” for Rural Electricity Infrastructure and Household Electrification was launched in April 2005 for the attainment of the National Common Minimum Programme of providing access to electricity to all Rural Households in five years.

Under this scheme 90 per cent capital subsidy would be provided for projects for:

- (i) Creation of Rural Electricity Distribution Backbone (REDB) with 33/11 KV (or 66/11 KV) substation in every block appropriately linked to the State Transmission System.
- (ii) Creation of Village Electricity Infrastructure (VEI) for electrification of all unelectrified villages/habitations and provision of distribution transformer(s) of appropriate capacity in every village/habitation.
- (iii) Decentralized Distribution Infrastructure for Supply System from conventional sources for Villages/Habitations where grid supply is not cost effective and where Ministry of Non-Conventional Energy Sources would not be providing electricity through their programme (s).

The scheme *inter alia* provides for financing of electrification of all un-electrified Below Poverty Line (BPL) households in the country with 100 per cent capital subsidy as per norms of Kutir Jyoti Programme in all rural habitations.

For projects to be eligible for capital subsidy under this scheme prior commitment of the States would be taken before sanction of the projects for—

- (a) deployment of franchisees for the management of rural distribution in projects financed under this Scheme, and
- (b) Provision of requisite revenue subsidy to the State utilities as required under the Electricity Act, 2003.

The State would also be required to make adequate arrangements for supply of electricity and there should be no discrimination in the hours of supply between rural and urban households.

The Scheme covers the entire country and the funds would be released on the basis of sanction of the projects submitted. It is estimated that ₹ 16,000 crore would be

required for the entire scheme. For Phase-I of the scheme approved for implementation during the 10th Five Year Plan period ₹ 5,000 crore has been provided by the Central Government as capital subsidy.

The Government of India has approved the continuation of the scheme in 11th Plan for attaining the goal of providing access to electricity to all households, electrification of about 1.15 lakh unelectrified villages and electricity connections to 2.34 crore BPL households by 2009 with a capital subsidy of ₹ 28,000 crore.

As per MIS of RGGVY, as on 31 March 2010, 619 project proposals were received by REC out of which 573 projects (including 235 projects in 10th Plan) at an estimated cost of ₹ 26353.51 crore were approved. The approved projects cover 118499 unelectrified villages and 2.46 crore BPL households. ₹ 22013.17 crore have been released to States under the scheme.

As on 31 March 2010, 83,194 unelectrified villages and 1.23 crore BPL households have been electrified under the scheme.

POWERGRID had diversified into Telecom by installing Optical Ground Wire (OPGW) on transmission towers, leveraging its countrywide transmission infrastructure. POWERGRID has already established a network of over 20,000 kms and connectivity has been provided to all major cities viz. Delhi, Mumbai, Chennai, Kolkata, Bengaluru, Hyderabad etc. as well as to remote areas including Jammu & Kashmir and North-Eastern States. POWERGRID has acquired infrastructure Provider Category - II (IP-II licence), Internet Services Provider (ISP) Category A and National Long Distance Operator (NLDO) licences to offer a wide variety of services to various customers.

Under APDRP, POWERGRID is acting as Advisor-Cum-Consultant (AcC) to lend its managerial and technical expertise for improvement of distribution system in 177 distribution circles/towns/schemes spread over 18 States at an estimated cost of about ₹ 6,600 crore. Most of these schemes have been commissioned. Further, POWERGRID is also implementing some of these schemes on deposit work basis under bilateral arrangement in the States of Bihar, Goa, Meghalaya, Uttar Pradesh, Tripura and Gujarat at a cost of about ₹ 1,100 crore; most of these are nearing completion.

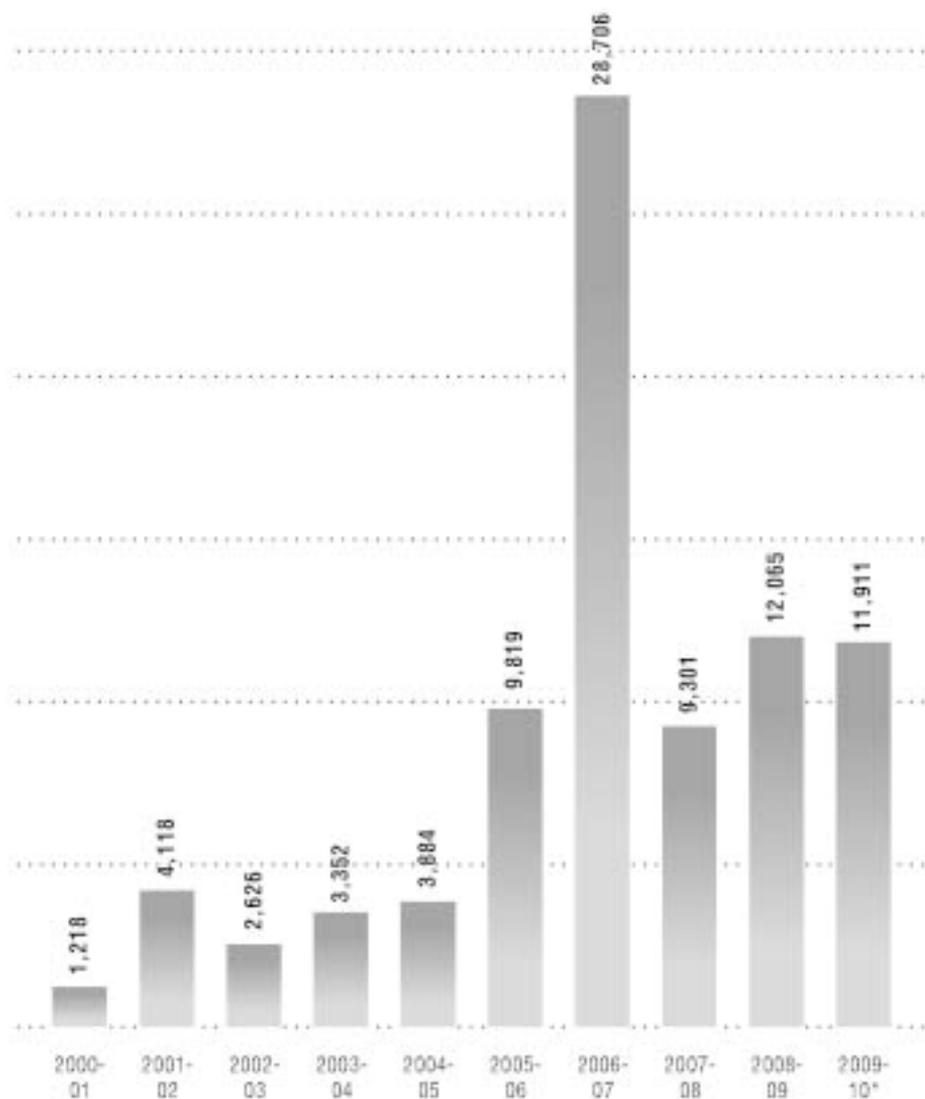
Under RGGVY, POWERGRID had entered into a quadripartite agreement with Rural Electrification Corporation (REC), State Government and State Power utility, for undertaking rural electrification works in the country. POWERGRID has been assigned the job for execution of rural electrification works in 68 districts in the country covering around 74,000 villages at an estimated cost of about ₹ 6,400 crore. As part of this, POWERGRID has already established infrastructure for electrification of about 30,000 villages till March 2009 out of 31,566 villages sanctioned during 10th Plan. Balance were expected to be completed by March, 2010. For 43,670 villages spread over 33 districts, sanctioned recently for 11th Plan, implementation of projects in most of the districts has already commenced.

RURAL ELECTRIFICATION CORPORATION LIMITED

Rural Electrification Corporation Limited (REC) was incorporated as a Company under Companies Act, 1956 in 1969 with the main objective of financing rural electrification schemes in the country. The expanded mandate of REC includes financing of all projects including transmission and generation without any restriction on population, geographical location or size. REC is a Public Financial

Progress of Rural Electrification

Villages Electrified
(CUMULATIVE)



KBK

* Upto 31.01.2010

institution under Section 4A of the Companies Act, 1956. REC is also registered as a Non-Banking Financial Company (NBFC) under Section 45 IA of the RBI Act, 1934. REC is a "Navratna" company.

REC has grown over the years to be a leading financial institution in power sector. Besides attending to its core objectives of financing schemes for extending and improving the rural electricity infrastructure, REC is presently funding large/ mega generation projects, and transmission and distribution projects, which are critical to the projected addition of installed capacity during the Tenth and Eleventh Plans. REC is also the Nodal Agency for implementation of Rajiv Gandhi Grameen Vidyutikaran Yojana—a scheme of Rural Electricity infrastructure and Household Electrification launched by the Government of India in April 2005, for attainment of the National Common Minimum Programme (NCMP) goal of providing access to electricity to all households in five years.

In the Annual MOU signed with Ministry of Power, REC has been consistently rated as "Excellent" in performance from the Fiscal 1994 to 2008. For the Fiscal 2009 also, the Corporation is poised to receive "Excellent" rating.

The Authorised and Paid-up Share Capital of the Company are ₹ 1200 crore and ₹ 858.66 crore respectively as on 31 March 2009. The amount mobilized from the market during the year 2008-09 was ₹ 14894.89 crore. The domestic debt instruments of REC continued to enjoy "AAA" rating—the highest rating assigned by CRISIL, CARE ICRA and FITCH. REC also enjoys International Credit rating equivalent to sovereign rating of India from International Credit Rating Agency Moody's and FITCH which is "Baa3" and "BBB" respectively.

POWER GRID CORPORATION OF INDIA LIMITED

The Power Grid Corporation of India Limited (POWERGRID) was incorporated as a Government enterprise on 23 October 1989 for establishment of operation of regional and national power grids to facilitate transfer of power within and across the regions with reliability, security and economy and on sound commercial principles. POWERGRID was notified as the Central Transmission Utility (CTU) of the country w.e.f. 1998. Further, Government of India conferred the status of 'Navratna' to POWERGRID w.e.f. 1 May 2008.

The year 2008-09 has been the year of impressive financial performance. Gross Turnover for the year grew by about 38 per cent to ₹ 7,029 crore. Similarly, Profit after Tax during the year increased to ₹ 1,691 crore from ₹ 1,448 crore in FY 2007-08, thereby registering a growth of about 17 per cent. The Company's Gross asset base at the end of the financial year 2008-09 stood at ₹ 40,319 crore as against ₹ 35,417 crore at the end of last financial year, an increase of about 14 per cent. At the end of FY 2008-09, the company has a Networth of ₹ 14,618 crore and Capital Employed of ₹ 28,430 crore. There has been an impressive growth in the earning potential of the company, which is reflected by the steady growth of return on Net Worth from the level of 5.63 per cent in 1992-93 to 11.57 per cent in 2008-09. During FY 2009-10 till September 2009, POWERGRID achieved a turnover of about ₹ 3,646 crore (provisional) and Net Profit of ₹ 1,007 crore (Provisional). Total fixed assets of the company have grown to ₹ 41,036 crore (Provisional) till September 2009.

NATIONAL GRID

A national power grid in the country is being developed in a phased manner. By

now, all the regional grids have already been inter-connected and total transmission capacity of inter-regional transmission system, as on 31 May 2010 was 20750 MW. At present, except Southern Region, all the other four regions are inter-connected in synchronous mode and are operating in parallel while Southern Region is interconnected through synchronous links (HVDC).

Initially, a set of inter-regional links were developed under the Centrally sponsored programme for facilitating exchange of operational surpluses among various Regions in a limited manner. Because the Regional Grids operated independently and had different operational frequencies and the power exchanges on these inter-regional links took place only in radial mode. In 1992, the Eastern Region and the North-Eastern Region were connected by a 220 kV double circuit transmission line, and are operating in synchronism since then. Total inter-regional transmission capacity by the end of 9th Plan was 5750 MW.

During 10th Plan i.e. 2002-07, a total of 8300 MW of inter-regional capacities were added. In this effort, major achievements were—addition of Talchar-Kolar HVDC Bipole, second module of HVDC back-to-back system between SR and ER at Gazuwaka, HVDE back-to-back system between NR and ER at Sasaram, synchronous inter-connection of NER/ER grid with WR grid by Rourkela-Raipur 400 kV D/C line, synchronous inter-connection of NER/ER/WR grid with NR grid by Muzaffarpur-Gorakhpur 400 kV). DC (quad) line and subsequently one circuit of Patna-Balia 400 kV D/C (Quad) line and Agra-Malanpur 765 kV transmission line (operated at 400 kV). Total inter-regional transmission capacity by the end of 10th Plan was 14050 MW.

During 11th Plan i.e. 2007-12, inter-regional transmission systems of 13950 MW capacity have been planned and it is expected that, by end of 11th Plan, total inter-regional transmission capacity of the National Power grid would be increased to 28000 MW. Out of the programme for 11th Plan, 2400 MW capacity was added during 2007-08, 3300 MW during 2008-09 and 1000 MW during 2009-10. Thus a capacity addition of 6700 MW has already been added in 11th Plan up to 31 May 2010.

POWER FINANCE CORPORATION LIMITED (PFC)

The Power Finance Corporation Limited (PFC) is a leading Power Sector Financial Institution and a Non-Banking Financial Company, providing fund and non-fund based support for the development of the Indian Power Sector. Occupying a key position in the Government of India's plan for the power sector, PFC performs a major role in channelizing investment into the power sector and functions as a dedicated agency for its development. PFC is a Schedule-A, Navratna CPSE in the Financial Services Sector, under the administrative control of the Ministry of Power, with 89.78 per cent shareholding of the Government of India. Its Registered and Corporate Offices are at New Delhi. PFC was incorporated on 16 July 1986, under the Companies Act, 1956, as part of Government of India's initiative to enhance funding of power projects in India, with an objective to provide financial resources and encourage flow of investments to the power and associated sectors, to work as a catalyst to bring about institutional improvements in streamlining the functions of its borrowers in financial, technical and managerial areas to ensure optimum utilization of available resources, to mobilize various resources from domestic and international sources at competitive rates, to strive for upgradation of skills for effective and efficient growth of the sector, and to maximize the rate of return through efficient operations and introduction of innovative financial instruments and services for the power sector.

PFC draws upon its vast knowledge of the power sector and its financing expertise to provide tailor-made products and services to its clients. In addition, PFC provides technical, management advisory and consultancy services related activities through its subsidiary company, namely, PFC Consulting Limited. PFC's clients include the Power Utilities of State, Central and Private Sector. These clients are involved in various aspects of the Power Sector in India, including generation, transmission and distribution, and other related activities.

PFC's priorities include not only accelerating the pace of existing business of funding generation, transmission and distribution projects, but also to exploit the new opportunities available in the sector. With this philosophy, PFC has around half-a-dozen strategic business units, focusing on different business segments—conventional lending to generation, transmission and distribution projects; consortium lending to generation, transmission and distribution projects; lending to power equipment manufacturers and fuel producers and suppliers, renewable energy and CDM, equity funding through Power Equity Capital Advisor Pvt Ltd. (PECAP).

PFC's long term borrowings programme has been rated at 'Baa3' by Moody's, 'BBB' by Standard & Poor's and 'BBB-' by FITCH which is at par with India's Sovereign Rating. Further, CRISIL and ICRA have assigned 'AAA' and 'LAAA' rating respectively to PFC.

Performance Highlights

PFC issued Sanctions for ₹ 37,065 crore of loans and grants during the financial year 2009-10 up to 30 November 2009, as compared to ₹ 28,660 crore Sanctioned during similar period of the last year (2008-09). An amount of ₹ 12,672 crore was disbursed during the same period to State, Central and Private Sector entities, compared to ₹ 12,062 crore disbursed during similar period last year (2008-09). With this, cumulative Sanction of ₹ 2,56,613 crore and Disbursement of ₹ 1,25,792 crore of loans and grants have been made by the Company as on 30 November 2009.

Nodal Agency for Government Schemes

PFC is a key agency in various Government of India Power Sector schemes and programmes and has implemented and/or is implementing schemes like Restructured Accelerated Power Development & Reform Program (R-APDRP), Accelerated Generation & Supply Programme (AG&SP), Distribution Reform, Upgrades and Management (DRUM) and Delivery through decentralized Management (DDM). In addition, Government of India has designated PFC as the nodal agency to develop Ultra Mega Power Projects (UMPPs) based on tariff based competitive bidding process, each project having a capacity of around 4000 MW and requiring an investment of about ₹ 20,000 crore. In this regard, PFC has successfully awarded 4 UMPPs through tariff based competitive bidding process.

PFC has also been designated as the nodal agency for development of Independent Transmission Project (ITP) based on tariff based competitive bidding process and is presently handling ITP.

Power Lenders' Club

PFC has also established the 'Power Lenders' Club' which consists of 18 banks and includes major financial institutions, like HUDCO and LIC.

Power Exchange

In 2008-09, PFC had participated in the equity of Power Exchange India Limited

(PXI), a company promoted by NSE and NCDEX. PFC has become Professional Clearing Member (PCM) of Power Exchange to support the activities of Trading Members. PFC, NTPC, NHPC and TCS have promoted "National Power Exchange Limited" a company incorporated under The Companies Act, 1956, with an authorized capital of ₹ 50 crore.

SATLUJ JAL VIDYUT NIGAM LTD.

About SJVN

The Satluj Jal Vidyut Nigam Limited-SJVN (formerly NJPC) was established on 24 May 1988 as a joint venture of the Government of India (GOI) and the Government of Himachal Pradesh (GOHP) with equity participation in the ratio of 75:25 respectively, to plan, investigate, organize, execute, operate and maintain Hydro-electric power projects. SJVN is a "Schedule-A" Mini Ratna company. The present authorized share capital of SJVN is Rs. 4500 crore.

SJVN is committed for generating reliable and eco-friendly power by means of state-of-the-art technology, excellence in engineering and continued improvement in quality management. SJVN, an IT savvy Corporation, has established and is following sound business, financial and regulatory policies.

SJVN having commissioned the 1500 MW Nathpa Jhakri HE Project, is endowed not only with the state-of-the-art technology and know-how to tackle the Himalayan Geology but has also developed the requisite knowledge and capability to conceptualize, optimize and develop the power potential of Hydro-power development scheme of all sizes.

In pursuit to expansion of the Corporation by acquiring new projects for development, the Corporation expanded its base from a single project to a multi project and thereafter from presence in a single state to a pan-Indian Corporation and established its footprint in the neighbouring countries of Nepal and Bhutan.

The Nathpa Jhakri Hydro Power Station - NJHPS (1500 MW) was the first project undertaken by SJVN for execution, and all its six units of 250 MW each were commissioned and are under commercial operation since 18 May 2004. Since its commissioning NJHEPS has generated total of 35432.37 MUs (Gross Energy Generation) up to 31 December 2009 and SJVN has paid a total dividend of Rs. 1181.59 crore.

The corporation proposes to develop Rampur HE Project as CDM Project for obtaining Carbon Finance. The preliminary estimates show that the execution of this Project shall result into Emission Reductions (ERs) of 1.4 million per annum resulting in saving of 1.4 million tonnes of CO₂ per year.

SJVN has been fully aware of the importance of both environmental, resettlement and rehabilitation issues. SJVN has adopted an environment, resettlement and rehabilitation policy which reiterates the company's commitment to sustainable development which is within the carrying capacity of the eco-system and which also promotes the improvement of the quality of life.

For its outstanding contribution to environment protection SJVN has been awarded with Green Tech Award, Golden Peacock Eco Innovation Awards, etc.

Consultancy Services

SJVN has experience of corporate and project planning, design, engineering, construction management, erection and commissioning, contracts management,

project management, human resource management, financial management and commercial management of India's largest hydro-electric project. To effectively utilize the in-house expertise and the experience gained, a dedicated consultancy division has been established for providing consultancy services to national and international organizations.

NATIONAL POWER TRAINING INSTITUTE

National Power Training Institute (NPTI), a registered society under Ministry of Power, Government of India is committed to the development of Human Resources in Power Sector for the past four decades.

NPTI with its corporate centre at Faridabad operates eight institutes all over the country. It has five regional institutes located at Neyveli (Tamil Nadu), Durgapur (West Bengal), Badarpur (New Delhi), Nagpur (Maharashtra) and Guwahati (Assam) and two specialized centres viz., Power Systems Training Institute (PSTI) & Hot Line Training Centre (HLTC) at Bengaluru, Centre for Advanced Management and Power Studies (CAMPS) at Faridabad (Haryana). NPTI (NE-R) is at present operating from temporary site at Narangi complex of ASEB, Guwahati, and the full-fledged training institute, as sanctioned by the Government of India at a cost of ₹ 18.29 crore, is in the advanced stage of completion at Kahilipara, Guwahati. The Government of India has also sanctioned a scheme for setting up of Hydro Power Training Centre at Nangal at an estimated cost of ₹ 14.75 crore which is under implementation.

The Institutes of NPTI are will equipped with Hi-Tech infrastructural facilities for conducting different courses on technical as well as management subjects covering the needs of Thermal, hydro and Nuclear Power Plants, Transmission & Distribution Systems, and Energy related fields of the Indian Power and allied Energy Sectors. It has high fidelity, real-time full scope 500 MW & 210 MW Fossil Fuel Fired Power Plant Training Simulators at its various institutes imparting off-job specialized skills to operation personnel across the country. Also a 430 MW CCGT Replica Simulator has been commissioned at NPTI Corporate Office, Faridabad.

A Geographical Information System (GIS) Resource Centre for training and consultancy in the areas of GIS based electricity Distribution Network Planning and Management has been set up at NPTI Corporate Office, Faridabad.

A facility has been created at NPTI's Hot Line Training Centre, Bengaluru for Live Line Maintenance of Transmission Lines upto 400 KV (first of its kind in Asia) which enables trained personnel to attend to maintenance requirements without power interruptions.

Several long-term and short-term training programs in the areas of thermal, hydro, transmission & distribution and management etc. are being conducted in the various institutes of NPTL. Besides conducting refresher training for working engineers/supervisors, NPTI conducts a large number of job-oriented educational programmes also such as MBA in Power Management, B.Tech (Power) and Post Graduate Diploma in Thermal Power Plant Engineering.

CENTRAL POWER RESEARCH INSTITUTE

The Central Power Research Institute (CPRI), a Society registered under the Societies Registration Act under the Ministry of Power serves as National Laboratory to carry out applied research in Electrical Power Engineering. It also functions as an independent National Testing and Certification Authority for Electrical Equipment for ensuring their reliability.

The Institute, with its existence of over four decades has built sophisticated facilities, both in the areas of research and testing. The important facilities include 2500 MVA Short Circuit Testing with Synthetic Testing Facility at Bengaluru, Ultra High Voltage Research Laboratory at Hyderabad, Short Circuit Testing Facility at Bhopal, Thermal Research Centre at Koradi, Nagpur and Regional Testing Laboratory at Noida, Kolkata and Guwahati.

Over the years, CPRI has built up expertise in the areas of transmission and distribution systems, power quality, energy metering, energy auditing, transmission line, tower design, conductor vibration studies, power systems studies, energy conservation studies, transformer oil reclamation and testing, diagnostic and condition monitoring and estimation of remaining life of equipment, new material for power system application, Ultra High Voltage testing, short circuit testing, High Voltage testing and other related fields. The Institute has set up and commissioned the state-of-the-art seismic testing facility and a Real Time Digital Simulation facility. CPRI offers consultancy services in these areas.

The CPRI's laboratories are accredited under the National Accreditation Board for Testing and Calibration of Laboratories (NABL), which is the national body for accreditation of laboratories. CPRI has been given the Membership status in the group of Short Circuit Testing Liaison (STL) of Europe. CPRI laboratories are approved for certain products like communication cables, LT capacitors etc., by Underwriters Laboratories and Canadian Standard Association. The Institute has been accredited by INTERTEKASTA, UK for testing of Low Voltage and Medium Voltage equipment, Power Transformers and Power Cables.

The Research and Consultancy activities have been certified for ISO-9001-2000 by NVT, KEMA. CPRI Laboratories have been recognized as Approved Test House by Electrical Directorate, Kingdom of Bahrain and Saudi Arabia. The certification is widely accepted in the countries of Middle-East, South-East, Far-East Asia and countries of Africa.

The Institute works as a nodal agency for national level power system research. Among the new ventures of the CPRI, the Centre for Collaborative and Advanced Research (CCAR) has been established for creating infrastructure for the visiting Scientists/Technologists to carry out research in the areas related to power sector. A centre has been set up for utilization of industrial solid wastes to useful value-added products for the benefit of industry.

The Institute has established Regional Testing Laboratories at Kolkata and Guwahati to cater to testing requirements in the Eastern and North-Eastern States of the country. The Institute has also established the Refrigerator & Air Conditioners testing laboratory under the Standards & Labelling Programme.

CPRI has served as Advisor-cum-Consultant under APDRP-I for three southern states viz., Karnataka, Kerala and Andhra Pradesh. Pioneering work has been done for total of 9 distribution circles and 256 towns in three states. CPRI is now empanelled as IT consultant for R - APDRP and is also Third Party Inspection Agency for Karnataka and Kerala under the Rajiv Gandhi Grameen Vidyutikaran Yojana Scheme (RGGVY).

The Institute also offers Third Party Inspection Services and customized Training Programmes to utilities and Industry.

NORTH-EASTERN ELECTRIC POWER CORPORATION LIMITED

With a need to develop the huge power potential, the North Eastern Electric Power Corporation (NEEPCO) was incorporated on 2 April 1976 as a wholly owned Government Enterprise under the Ministry of Power to plan, promote, investigate, survey, design, construct, generate, operate and maintain power stations in the N.E. Region. The authorised share capital of the Corporation presently stands at ₹ 3,500 crore. The installed capacity of the NEEPCO is 1,130 MW comprising 755 MW of Hydro Power and 375 MW of Gas Based Power. The Corporation currently meets more than 60 per cent of the energy requirement of the North Eastern Region. It is an ISO:9001:2000(Quality) ISO 14001:1996(Environment) and OHSAS-18001:1999 (Safety) Company with its Corporate Office at Shillong.

The Corporation plans to add power of 107.50 MW during 11th Five Year Plan. Presently, two hydro projects of 710 MW (Kameng 600 MW and Pare 110 MW) and one gas based project (Tripura gas based power project, 100 MW nominal 20 per cent) are under execution by NEEPCO.

BHAKRA BEAS MANAGEMENT BOARD

Bhakra-Nangal Project was taken up as a joint venture of the states of erstwhile Punjab and Rajasthan. On re-organisation of erstwhile Punjab State in 1966 'Bhakra Management Board' was constituted on 1 October 1967 under Section 79 of Punjab Re-Organisation Act, 1966 for the administration, maintenance and operation of Bhakra Nangal Project. Beas Construction Board was constituted under the Punjab Re-Organisation Act, 1966 for construction of Beas Project. 'Bhakra Management Board' was renamed as 'Bhakra Beas Management Board' (BBMB) w.e.f. 15 May 1976 after transfer of Beas Project on its completion by Beas Construction Board.

Main functions of BBMB are as under:-

- i) The regulation of the supply of water for irrigation from Bhakra Nangal and Beas Projects to the States of Punjab, Haryana and Rajasthan and also drinking water supply to Delhi and Chandigarh.
- ii) The regulation of the supply of power generated at BBMB Power Houses to Punjab, Haryana, Rajasthan, HP, Chandigarh and some Common Pool Consumers like old HP, National Fertilizers Limited, Nangal etc.
- iii) In the year 1999 BBMB has been entrusted with additional function of providing and performing engineering and related technical and consultancy services to states and other utilities.

The installed capacity of BBMB Power Plants is 2864.73 MW. The power generation of BBMB Power Houses is being evacuated through BBMB power evacuation system running into 3706 km length of 400 KV, 220 KV, 132 KV and 66 KV transmission lines and 24 EHV sub-stations.

BUREAU OF ENERGY EFFICIENCY

Bureau of Energy Efficiency (BEE) was set up in March 2002 within the overall framework of the Energy Conservation Act, 2001 and is responsible for spearheading the improvement of energy efficiency in the economy through various regulatory and

promotional instruments. BEE's efforts to promote energy efficiency during the 11th Plan period and to achieve the target of reducing consumption by 5 per cent (equivalent to 10,000 MW of avoided capacity) by 2012 have been initiated, through its several programmes/ scheme which are standards & Labelling Scheme, Bachat Lamp Yojana (BLY), Energy Conservation Building Code (ECBC), Star rating programme for office buildings, National Certification Examination for Energy Managers/Auditors, Agricultural and Municipal DSM programme, State Designated Agencies (SDAs), State Energy Conservation Fund (SECF), National Energy Conservation Awards and the national Painting Competition on Energy Conservation.

Through implementation of the above-mentioned programmes/schemes, a total of 1505 MW of avoided generation was achieved during the year 2008-09 which is based on verified reports. The savings during 2009-10, which are still under verification, are expected to be 2600 MW.

Further, the Ministry of Power/BEE has been entrusted with the National Mission on Enhanced Energy Efficiency (NMEEE). The four key initiatives to take forward this mission are the Perform Achieve and Trade (PAT), Market Transformation for Energy Efficiency (MTEE), Creation of Energy Efficiency Financing Platforms (EEEP) and Framework for Energy Efficiency Economic Development (FEEED). The NMEEE Scheme has been approved by the Cabinet on 24 June 2010 and is likely to be launched shortly.

PETROLEUM AND NATURAL GAS

The Ministry of Petroleum and Natural Gas is entrusted with the responsibility of exploration and production of oil and natural gas including import of Liquefied Natural Gas (LNG), and the refining, marketing, distribution, import, export and conservation of petroleum products.

India is a member of the International Energy Forum (IEF) which provides a platform for biennial meetings of the Ministers from the energy producing and consuming countries. This forum was earlier known as "Producer-Consumer Dialogue" between the oil producing and consuming countries. The permanent secretariat of the IEF is in Riyadh. The mission of the secretariat is to further strengthen and enhance the process of global dialogue on energy at the political level.

CRUDE OIL AND NATURAL GAS PRODUCTION

Oil and Natural Gas Corporation Limited (ONGC) and Oil India Limited (OIL), the two National Oil Companies (NOCs) and private and joint venture companies are engaged in the Exploration and Production (E&P) of oil and natural gas in the country.

Government of India approved the New Exploration Licensing Policy (NELP) in 1997 and it became operative in February 1999. Since then licences for exploration are being awarded only through a competitive bidding system and National Oil Companies (NOCs) are required to compete on an equal footing with other Indian and foreign companies to secure Petroleum Exploration Licences (PELs). Eight rounds of bids have so far been held under NELP, and 235 exploration blocks have been awarded. In addition, 28 exploration blocks were signed prior to NELP under various bidding rounds with private Indian and foreign companies and NOCs as Licensees. Under NELP, 87 oil and gas discoveries in 26 blocks have already been made.

COAL BED METHANE

Coal Bed Methane is an environment-friendly clean fuel similar to conventional natural gas. In order to explore and produce new sources of natural gas from coal bearing areas, the Government had formulated a CBM policy providing attractive fiscal and contractual framework for exploration and production of CBM in the country. The Government has so far signed 33 contracts for exploration and production of CBM.

OIL AND NATURAL GAS CORPORATION LIMITED

The Oil and Natural Gas Commission was established on 14 August 1956 as a statutory body under Oil and Natural Gas Commission Act for the development of petroleum resources and sale of petroleum products. As per the decision of the Government, the ONGC was converted into a Public Limited Company under the Companies Act, 1956 and named as "Oil and Natural Gas Corporation Limited" from 1 February 1994. In March 2004, the Government has disinvested around 10 per cent of the equity shares of ONGC through a public offer in the domestic capital market at ₹ 750 per share. After the above disinvestment, the shareholding of the Government in ONGC came down to around 74.15 per cent. The authorized and paid-up capital of ONGC as on 31 March 2009 is ₹ 15000 crore and ₹ 2138.87 crore respectively.

ONGC VIDESH LIMITED

ONGC Videsh Limited (OVL), a wholly-owned subsidiary of ONGC, was incorporated as Hydrocarbons India Limited on 5 March 1965 with an initial authorised capital of ₹ 5 lakh, for the business of international exploration and production. Its name was changed to ONGC Videsh Limited on 15 June 1989. The authorised and paid-up share capital of OVL as on 31 March 2007 was ₹ 1,000 crore. The primary business of the company is to prospect for oil and gas acreages abroad. These include acquisition of oil and gas fields in foreign countries as well as exploration, production, transportation and sale of oil and gas.

OVL currently has participation in 39 projects in 15 countries namely, Vietnam (3 projects), Russia (2 projects), Sudan (3 projects), Iran (1 project), Iraq (1 project), Libya (3 projects), Myanmar (5 projects), Syria (2 projects), Egypt (2 projects), Cuba (2 projects), Nigeria Sao Tome Principe JDZ (1 project), Brazil (5 projects), Nigeria (2 projects), Colombia (6 projects), and Venezuela (1 project). OVL's share of crude oil and natural gas production is currently from 9 projects in seven countries, viz., Russia, Sudan, Vietnam, Syria, Colombia, Venezuela and Brazil. OVL's share of the crude oil and natural gas production in 2009-10 is expected to be 8.142 Million Metric Tonne of oil equivalent (MMTOE) including 2.017 BCM of natural gas. The other 30 projects being implemented by DVL are at various stages of exploration and appraisal.

The gross revenue of ₹ 13,444 crore is estimated by OVL during the financial year 2009-10 with net profit of ₹ 412 crore. Further, OVL is pursuing acquisition of various oil and gas exploration and production opportunities in Russia, Central Asia, Latin America, Africa, and Middle East, which are at different stages.

OIL INDIA LIMITED

Oil India Limited (OIL), under the administrative set-up of the Ministry of Petroleum and Natural Gas, is a National Oil Company engaged in the exploration, production

and transportation of crude oil and natural gas in the country. OIL was incorporated in 1959 as a company with a two-third share of Burmah Oil Company and one-third share of Government of India. In 1961, OIL became a joint venture company with equal share of Government of India and Burmah Oil company. On 14 October 1981, OIL became a Government of India enterprise, a wholly-owned Public Sector Undertaking. OIL has operational areas in the States of Assam, Arunachal Pradesh, Orissa, Uttar Pradesh, Uttarakhand and Rajasthan.

Prior to the Public Issue, Government holding in OIL was 98.13 per cent of the paid-up equity share capital of ₹ 214 crore. OIL came up with the Public Issue of the 26,449,982 shares from 7 to 10 September 2009. Upon the completion of the Public Issue, the Government holding of share in OIL has reduced to 78.43 per cent, of fully diluted post-issue paid-up Equity Share capital of ₹ 240.45 crore. Additionally, upon completion of the Issue, IOC, HPCL and BPCL, own in aggregate approximately 21.40 million shares, or 8.91 per cent of fully diluted post-issue paid-up equity in the ratio of 2:1:1 respectively. The authorized capital of the Company is ₹ 500 crore and the current paid-up capital is ₹ 240.45 crore.

GAIL INDIA LIMITED

The setting up of GAIL (India) Limited, formerly known as Gas Authority of India Limited in August 1984 heralded a new era of natural gas in the country. GAIL is now completing 26 glorious years of service to the nation. GAIL has completed two-and-half decades of an eventful journey. Starting with a natural gas transmission company, it is today an integrated energy company along the Natural Gas value chain with global footprints. Having started as a gas transmission company during the late eighties, it grew organically over the years by building a large network of Natural Gas Trunk Pipelines covering a length of over 7000 km. Today, GAIL has interests in the business of Natural Gas, LPG, Liquid Hydrocarbons and Petrochemicals, the latter being value-added products. The Company has also entered in telecom sector by leasing bandwidth available through the OFC which is laid along the gas pipelines for their operation and maintenance. GAIL has also diversified into Exploration and Production, City Gas Distribution and is steadily developing an overseas presence.

These are exciting times for GAIL with the Company recording revenue of ₹ 237.76 billion and a PAT of ₹ 28.04 billion in FY 2008-09. The Company is implementing projects for laying 5 new pipelines and in addition, augmentation of two existing pipelines is also being taken up. This will lead to doubling of pipeline length and transmission capacity in the next 3 to 4 years.

Exploration and Production

In a move towards integration along the energy chain and for sourcing supply, GAIL has entered into the area of exploration and production. Currently, the company is involved in oil and gas exploration activities over an acreage of 1,64,637 sq. km. GAIL now holds a participating interest between 10 to 80 per cent in 27 oil and gas exploration blocks. Of these, 9 are on-land blocks and 18 are offshore blocks. In India there are 24 blocks which are in Basins such as Mahanadi, Bengal, Gujarat - Saurashtra, Mumbai, Cambay, Assam-Akaran and Cauvery. Furthermore, GAIL has also got stake in the A-1 and A-3 blocks in Myanmar and Block No. 56 in Oman. GAIL consortium has participating interest in three CBM blocks in the country in collaboration with Arrow Energy of Australia, EIG Energy Infrastructure Group and Tata Power.

Overseas presence

Apart from its equity participation in three retail gas companies in Egypt and in China Gas Holdings in China, participating interest in offshore blocks in Myanmar and one onland block in Oman; GAIL is pursuing business opportunities in regions such as South/South-East Asia, West Asia, Russia and Central Asian Republics and African continent in the areas of exploration and production, gas transmission, CNG and city gas distribution, LNG and petrochemicals. GAIL has set up a wholly-owned subsidiary company viz. GAIL Gobal (Singapore) Pvt. Ltd in Singapore.

REFINING

The present refining capacity in the country is 185.386 MMPTA. There are 20 refineries operating in the country (17 in public sector and 3 in private sector). Out of 17 Public Sector refineries, 8 are owned by Indian Oil Corporation Ltd. (IOCL), 2 each by Chennai Petroleum Corporation Limited (a subsidiary of IOCL), Hindustan Petroleum Corporation Limited (HPCL), Bharat Petroleum Corporation Limited (BPCL) and Oil & Natural Gas Corporation Limited and 1 by Numaligarh Refinery Limited (a subsidiary of BPCL). In the private sector, Reliance Industries Limited owns 2 refineries while Essar Oil Limited owns 1 refinery. The capacity-wise details of the refineries are given below:

LOCATION AND CAPACITIES OF REFINERIES OPERATING IN INDIA

Sl. No.	Name of the company	Location of the Refinery	Present Capacity (MMTPA)*
Public Sector			
1.	Indian Oil Corporation Limited	Guwahati	1.00
2.	Indian Oil Corporation Limited	Barauni	6.00
3.	Indian Oil Corporation Limited	Koyali	13.70
4.	Indian Oil Corporation Limited	Haldia	7.50
5.	Indian Oil Corporation Limited	Mathura	8.00
6.	Indian Oil Corporation Limited	Digboi	0.65
7.	Indian Oil Corporation Limited	Panipat	12.00
8.	Indian Oil Corporation Limited	Bongaigaon	2.35
9.	Hindustan Petroleum Corporation Limited	Mumbai	6.50
10.	Hindustan Petroleum Corporation Limited	Visakhapatnam	8.30
11.	Bharat Petroleum Corporation Limited	Mumbai	12.00
12.	Bharat Petroleum Corporation Limited	Kochi	9.50
13.	Chennai Petroleum Corporation Limited	Manali	9.50
14.	Chennai Petroleum Corporation Limited	Nagapattnam	1.00
15.	Numaligarh Refinery Limited	Numaligarh	3.00
16.	Mangalore Refinery & Petrochemicals Limited	Mangalore	11.82

17.	Oil & Natural Gas Corporation Limited Refinery (ONGC)	Tatipaka, Andhra Pradesh	0.066
		Total (A)	112.886
Private Sector			
18.	Reliance Industries Ltd.	Mothikhavdi, Jamnagar	33.00
19.	Reliance Petroleum Ltd.	SEZ, Jamnagar	29.00
20.	Essar Oil Limited	Vadinar	10.50
		Total (B)	72.50
Grand Total (A+B)			185.386

*Million Metric Tonne Per Annum

IMPLEMENTATION OF BS-III/IV FUELS IN THE COUNTRY

The Auto Fuel Policy, approved by the Government, laid down a roadmap for upgradation of the quality of auto fuels (Petrol and Diesel) to Bharat Stage (BS) IV in 13 identified cities and BS-III in the rest of the country. As per the roadmap, supply of BS-IV Petrol and Diesel commenced in all 13 identified cities from 1 April 2010.

Due to significant increase in the demand for auto fuels, supply-side constraints and critical logistic issues including movement of products in large quantities across the country, introduction of BS-III Petrol and Diesel in rest of the country was decided to be done in a phased manner between 1 April 2010 and 1 October 2010. However, the oil industry has successfully completed the introduction of BS-III fuels in the entire country on 22 September 2010.

Pricing of Petroleum Products

The Administered Pricing Mechanism (APM) or Cost Plus Pricing for petroleum products which was introduced in 1976 was abolished with effect from 1 April 2002, consequent to the de-regulation of the oil sector in India. Vide Gazette Notification dated 28 April 2002, Government notified that pricing of all petroleum products except PDS Kerosene and Domestic LPG, would be market determined. In line with this policy, the Oil Marketing Companies (OMCs) carried out 23 price revisions up to January 2004, on the principle of Import Parity Pricing (IPP). However, with the sustained rise in international oil prices from 2004, the Government found it necessary to modulate the retail prices of the four sensitive petroleum products, viz., Petrol, Diesel, PDS Kerosene and Domestic LPG.

In June 2006, based on the recommendations of the Rangarajan Committee, the Government changed the pricing mechanism for Petrol and Diesel from Import Parity to Trade Parity (Trade Parity being the weighted average of Import Parity and Export Parity prices in the ratio of 80:20) while the pricing of PDS Kerosene and Domestic LPG continues on Import Parity basis.

To arrive at a viable and sustainable system of pricing of petroleum products, Government had set up an Expert Group under the chairmanship of Dr. Kirit Parikh. In the light of Government's budgetary constraints and the growing imperative for fiscal consolidation, and the need for allocating more funds to social sector schemes for the common man, the Government has, with effect from 26 June, 2010 made the

pricing of Petrol and Diesel both at refinery gate and the retail level market-determined. However, in respect of Diesel, the initial increase in retail selling price was ₹ 2 per litre at Delhi, with corresponding increase in other parts of the country. In case of a high rise and volatility in international oil prices, Government will suitably intervene in the pricing of Petrol and Diesel.

The Government is committed to making available the essential fuels, particularly the cooking fuels to the common man at affordable prices. Accordingly, it has been decided to continue subsidising PDS Kerosene and Domestic LPG.

Conservation of Petroleum Products

After coal, petroleum products remain the primary energy source in India, with their consumption increasing at a very steep rate. For faster development, the role of energy sector is of paramount importance. India is at present one of the least energy efficient countries in the world with an identified scope of reducing energy consumption by 20-30 per cent in all major sectors through conservation measures. The spiralling prices of crude oil in the recent past have made all the developing economies to adopt a cautious approach for the judicious utilization of the already strained resources. The Petroleum Conservation Research Association (PCRA) set up as a registered society under the Ministry of Petroleum and Natural Gas in 1978 has been given the mandate to promote conservation of petroleum products in the major sectors of economy like transport, industry, households and agriculture through direct technical assistance, R&D, educational and training programmes, and mass awareness campaigns. PCRA's activities cover conservation of all energy sources, development, evaluation and commercialization of efficient equipment and additives, popularizing petro-crop cultivation and production of bio-fuels, environment protection, etc. PCRA has been conducting public awareness campaigns for promoting energy conservation in petroleum sector on a regular basis which includes various educational and practical sessions to variety of consumer sectors. PCRA has also launched media campaigns to promote efforts of conservation and is working in close association with BEE for popularizing labelling programmes for equipment using petro based fuel.

COAL

Coal is the main source of energy in the country and accounts for about 67 per cent of the country's commercial requirement. It is also an essential input in steel and carbo-chemical industries. As a result of exploration carried out down to a depth of 1200m by the Geological Survey of India and other agencies, a cumulative total of 267.21 billion tonnes of coal resources have been estimated in the country as on 1 April 2009.

The coal projects costing up to ₹ 100 crore can be sanctioned by the Board of Directors of Coal India Limited (CIL), and coal projects costing up to ₹ 50 crore can be sanctioned by the Board of Directors of Northern Coalfields Limited (NCL), Western Coalfields Limited (WCL), South Eastern Coalfields Limited (SECL), and Mahanadi Coalfields Limited (MCL) subject to certain conditions.

COAL CONSERVATION

Conservation of coal enjoins maximum recovery of *in-situ* reserves of coal. The aspect of conservation of coal is taken into account right from the planning stage and maximum recovery is ensured during the implementation stage.

Mechanised opencast mining is presently the commonly adopted technology for extraction of thick seams at a shallow depth. This is also important from the

conservation point of view since the percentage recovery by this technology is much higher. The dominance of this technology can be understood from the fact that it now contributes more than 87 per cent of the total coal production. This trend is likely to continue in the near future too. Further, the thick seams, which were earlier developed by Board and Pillar method or other methods of underground mining and had been standing on pillars for long in the absence of a suitable technology for extraction, have now in many cases become extractable by opencast method of mining with HEMM equipment of a suitable type in some mines of WCL, BCCL, CCL and ECL under shallow cover.

In case of underground mining, the introduction of mechanisation has resulted in an increased percentage of extraction thereby leading to better conservation of coal.

Longwall and continuous mining technology yields higher percentage of recovery (70 per cent to 80 per cent) with higher rate of output compared with other methods of underground mining. These methods have been implemented in some mines of Coal India Limited as well as of SCCL. However, due to difficult geo-mining conditions prevalent in India, a large-scale adoption of longwall technology has not been possible.

With the improvement in roof support technology using mechanised bolting with resin bolts, it has been possible to maintain a wider gallery span and extract seams under bad roof conditions more efficiently resulting in improved conservation of coal.

The Coal Conservation and Development Act, 1974 provides for the imposition of excise duty on coal despatches for meeting the needs of activities like conservation of coal, development of coal mines, execution of stowing and other operations for the safety in coal mines and research work connected with conservation and utilisation of coal, etc. and assistance in mining operation.

SAFETY AND WELFARE

Special efforts to improve the standard of safety in the coal industry have brought down the rate of fatalities per million tonne of output in Coal India Limited. A Standing Committee on Safety regularly reviews safety standards in coal mines.

Since the nationalisation of coal mines, welfare of coal miners by way of providing facilities like housing, water supply, medical care, education, etc., is being given greater attention.

LIGNITE

Neyveli Lignite Corporation (NLC) is an integrated mining-cum-power project with open cast lignite mines linked with Thermal Power Stations. During the period April to December 2009 lignite production and power generation achievements of NLC were 16.30 MT and 13064.17 MV respectively against the target of 15.17 MT and 11876.00 MV.

Lignite reserves at Neyveli are exploited by Neyveli Lignite Corporation Limited (NLC). Incorporated as a private limited company in 1956, NLC was wholly owned by the Government and converted into a public limited company with effect from 7 March 1986. Over the years, it has acquired considerable expertise and has established itself as a premier organisation in the field of lignite-mining and lignite based power generation. The NLC is an integrated complex consisting of three lignite mines and three thermal power stations.

NEW AND RENEWABLE ENERGY

Energy is a basic input for almost all economic activities. In fact one of the indicators of economic growth has all along been the per capita consumption of energy. Therefore, with projected economic growth at 8 per cent or so, there will be a very rapid growth in energy demand. Even though there is huge capacity growth planned for conventional energy sectors, there is little doubt that current energy shortages will only increase. Simultaneously, there is a growing recognition, for more than one reason, of the dangers inherent in continuing with the model of economic development based on excessive consumption of fossil fuels. At the present rate of consumption, the limited reserves of fossil fuels would not last very long. Another aspect that has come into sharp focus is that developing countries can ill-afford to depend excessively upon petroleum imports. Energy security, in recent years, has gained immense strategic importance. Climate change has been recognized as mainly being caused by greenhouse gas emissions from energy intensive human economic activities based on fossil fuels. There is also the important issue of providing energy access. It has been accepted that 40 per cent of the population is currently denied this. In a situation of power shortage, therefore, it also appears difficult to fill this gap in the conventional way. Therefore, India has no alternative but to strive for energy efficiency and to look for renewable sources of energy, not only to provide additional power to the grid but also to provide energy access to the poor. There is also a need to replace consumption of fossil fuels and to reduce the demand for electricity wherever possible.

Ministry of New and Renewable Energy (MNRE) is the nodal Ministry of Government of India at the national level for all matters relating to new and renewable energy such as solar, wind, biomass, small hydro, hydrogen, biofuels, geothermal etc. The endeavour of the Ministry is to promote renewable energy technologies and increase the contribution of renewable energy in the total energy mix today and in the years to come as well as to sub-serve the above objectives. The Ministry has a wide range of programmes on research and development, demonstration and promotion of renewable energy for rural, urban, commercial and industrial applications as well as for grid-interactive power generation. The Ministry adopts a three fold strategy for the development, promotion and use of renewable energy technologies across the country: a) providing budgetary support for research, development and demonstration of technologies; b) facilitating institutional finance through various financial institutions; and c) promoting private investment through fiscal incentives, tax holidays, depreciation allowance and remunerative returns for power fed into the grid.

JAWAHARLAL NEHRU NATIONAL SOLAR MISSION

The National Action Plan on Climate Change in June 2008 identified that the development of solar energy technologies in the country was to be pursued as a National Mission. In November 2009, the Government of India approved the "Jawaharlal Nehru National Solar Mission" (JNNSM). The Hon'ble Prime Minister Dr. Manmohan Singh launched the Jawaharlal Nehru National Solar Mission on 11 January 2010, at a Solar Energy Conclave organized by the Ministry. The Mission aims at development and deployment of solar energy technologies in the country to achieve parity with grid power tariff by 2022. The objective of the National Solar Mission is to establish India as a global leader in solar energy, by creating the policy conditions for its diffusion across the country as quickly as possible.

The immediate aim of the Mission is to focus on setting up a conducive environment for solar technology penetration in the country both at the centralized and decentralized levels. The first phase (up to 2013) will focus on capturing of the low-hanging options in solar thermal; on promoting off-grid systems to serve populations without access to commercial energy and modest capacity addition in grid based systems. In the second phase, after taking into account the experience of the initial years, capacity will aggressively be ramped up to create conditions for up-scaled and competitive solar energy penetration in the country.

The target for the first phase is to set up 1,000 MW grid connected (33 KV and above) solar power plants; 100 MW of roof top and small solar plants connected to LT/11 KV grid and 200 MW capacity equivalent off-grid solar applications. The Mission targets are to create an enabling policy framework for the deployment of 20,000 MW of solar power by 2022, increase capacity of grid-connected solar power generation to 1000 MW within three years—by 2013; an additional 3000 MW by 2017 through the mandatory use of the renewable purchase obligation by utilities backed with a preferential tariff. The capacity can be more than doubled—reaching 10,000 MW or more installed power by 2017 based on the enhanced and enabled international finance and technology transfer. The ambitious target for 2022 of 20,000 MW or more, will be dependent on the 'learning' of the first two phases, which, if successful, could lead to conditions of grid-competitive solar power. In addition, favourable conditions need to be created for solar manufacturing capability, particularly solar thermal for indigenous production for off-grid applications reaching 2000 MW by 2022, apart from installation of 20 million solar lighting systems and 20 million m² solar thermal collector area.

RENEWABLE ENERGY FOR RURAL APPLICATIONS

In this area there are two major programmes—Remote Village Electrification and National Biogas Programme.

- **Remote Village Electrification** : The Remote Village Electrification (RVE) programme, initiated during the 10th Plan, aims at providing basic lighting/ electricity facilities through renewable energy sources in those unelectrified remote census villages and remote unelectrified hamlets of electrified census villages where grid connectivity is either not feasible or cost effective. Eligibility for support was expanded during the year to cover a) all census unelectrified villages and their hamlets not covered under Rajiv Gandhi Grameen Vidyutikaran Yojana, as confirmed by REC and unelectrified hamlets of electrified census villages having population of more than 300 and which are situated at least 3 kms from the nearest distribution transformer of the Grid; and b) uncovered households which existed as on 31 December 2009, of eligible villages and hamlets which have been earlier taken up under Remote Village Electrification Programme.

Project in 703 villages have been completed and new projects sanctioned for 659 villages during the year. Households in 4,997 remote villages and 1,257 remote hamlets have so far been provided solar home-lighting systems under this programme.

- **National Biogas and Manure Management Programme**: The programme of the Ministry mainly caters to setting up of family type biogas plants for meeting the cooking energy needs in rural areas of the country. Apart from setting up

family type biogas plants, the Ministry took up a new initiative for bottling of biogas to demonstrate an Integrated Technology-package in entrepreneurial mode on medium size (200-1000 cum/day) mixed feed biogas-fertilizer plants (BGFP) for generation, purification/enrichment, bottling and piped distribution of biogas. Eight such projects with aggregate capacity of 5700 cum/day have been sanctioned in the States of Bihar, Chhattisgarh, Gujarat, Haryana, Karnataka, Maharashtra and Punjab.

- Keeping in view the limited purchasing power of beneficiaries and increasing costs of construction of biogas plants and based on the feed-back from the implementing agencies, the Ministry has revised upwards, substantially, the pattern of CFA and other incentives for various components of the programme for 2009-10. Special and Innovative features have been introduced to enhance the reach of biogas plants by involving other agencies and having different financing mechanisms. During the year 51,732 family type biogas plants were installed upto December 2009 across the country, taking the cumulative installation to over 41.77 lakh biogas plants thereby providing the benefit of clean cooking and lighting fuel to over 4.2 million rural households.
- **Solar Photovoltaic (SPV) Demonstration :** In order to encourage provision of solar lighting in areas having the grid but suffering from power shortage, the Ministry initiated a new scheme to provide incentives to Banks, especially Regional Rural Banks, for promotional activities to extend micro-finance loans to consumers to purchase solar home lighting and other solar systems for powering small loads. During the year, 16 Regional Rural Banks propose to sanction loans for 1,19,000 Solar PV systems. These banks have 3,687 branches in 133 districts. By December 2009, 37,865 loans were sanctioned for installation of Solar PV systems by rural banks.

During the year, the Ministry supported installation of SPV systems in project mode in the States for specific applications such as lighting the homes, streets and police stations/posts, powering of computers in schools, PV systems for tribal hostels, bus stations, forest range office, housing colonies, etc.

Over 32,800 SPV home lighting systems and over 8,680 SPV street lighting systems were installed, taking the cumulative installation to 14 lakh SPV lighting systems, mostly in rural areas. A total of 69,000 solar lanterns were provided to the beneficiaries in Special Category States and drought affected areas while 106 solar pumps in the States of Arunachal Pradesh, Chhattisgarh, and Karnataka, and 105 kWp capacity of solar power plants were set up in Arunachal Pradesh, Haryana, Punjab and Tamil Nadu during the year. Further, 14,000 LED based solar lanterns were distributed among the victims of 'AILA' cyclone in Sundarbans, West Bengal. The project of 60,000 solar lanterns for distressed/BPL farmer families in six districts of Vidharbha region in Maharashtra sanctioned during 2007-08, was completed during the year.

- The Ministry intends to take forward in a very big way electrification (primarily lighting) of villages in paddy growing areas through gasification of rice husk. Rice husk based biomass gasification projects have been set up by M/s Husk Power System, Patna, an NGO of 32 kW gasifier systems with 100 per cent producer gas engines in 20 villages of West Champaran District of Bihar which are providing off-grid power to rural areas of 500-700 households

through each system within a radius of 1.5 km. The projects are built, owned and operated based on a sustainable revenue model.

The Ministry has revised its scheme to facilitate such systems and greatly upscale reach. Other companies and individuals are trying to replicate in other districts of Bihar—Araria, Chhapra, Buxar, etc. This has great potential and will be a major area of activity for the Ministry in next few years. Efforts will also be made to power irrigation pumps in these areas.

- In order to utilize the micro hydel resources in remote hilly areas, the Ministry introduced a new scheme during the year, with higher levels of subsidy for watermills and micro hydel projects upto 100 kw capacity. Micro hydel projects in international border districts have been given increased CFA of ₹ 1,00,000 per kW.

Development/upgradation of Water Mills: 208 watermills have been set up/upgraded for mechanical/electrical output in the States of Karnataka and Uttarakhand during the year. Besides, 25 micro hydel projects (upto 100 kW) were also sanctioned to Sikkim, J&K (for Ladakh Region) and Uttarakhand under the scheme. 2000 water mills and 56 micro hydel projects have been recently sanctioned to the state of Jammu and Kashmir for meeting the mechanical and electrical needs of rural communities.

Renewable Energy for Urban Applications

In urban areas, the primary focus is on solar water heating systems and construction of green building.

- Solar water heating is a very important way of reducing electricity demand by replacing geysers in domestic houses. This needs to be adopted in a very big way. States are being encouraged to enact/issue necessary orders with model Regulations and building bye-laws. 41 Municipal corporations in six States have amended their building bye-laws and four have even provided property tax rebate for installation of solar water heating systems. State Electricity Regulatory Commissions are being encouraged to provide rebates in electricity tariff to such users. An energy labelling scheme similar to the star rating scheme for air conditioners and refrigerators is also planned to promote efficient solar water heaters. Efforts are also being made to promote solar water heating systems in hotels, hospitals and in industrial and commercial establishments. Various user ministries such as Urban Development, Tourism, Defence, Railways, Textiles, Health, Food Processing Industries, etc. have been approached for adoption of solar water heating as part of the energy infrastructure under their respective sectors.

A total of about 5.0 lakh m² of solar collector area was installed in the year, taking the cumulative installation to about 34 lakh m².

- **Green Buildings :** Buildings consume more than 40 per cent of total energy use globally. The energy use in buildings, especially in developing countries, is growing due to rapid urbanization. In India, the real estate and construction sector, growing at a rate of about 10 per cent, represents amongst the best and most cost effective opportunities for reducing energy demand. It is possible to reduce energy consumption through appropriate climate responsive building design and energy efficiency measures. Green buildings address issues related

to water and waste management, environmental impact, and minimum destruction of natural resources, besides issues concerning energy supply and conservation.

Keeping in view the Indian agro-climatic conditions, a National Rating System—GRIHA has been developed. The system, by its qualitative and quantitative assessment criteria, would be able to 'rate' a building on the degree of its greenness. The rating system is suitable to Indian climate and is in harmony with the NBC 2005, ECBC 2007 and other IS codes.

The Ministry implements a Scheme on 'Energy Efficient Solar/Green Buildings' with the main objective to promote the widespread construction of energy efficient solar/green buildings in the country through a combination of financial and promotional incentives. In order to expedite implementation of the GRIHA rating system, the Ministry modified the provisions of scheme to exempt first 100 Govt./Public Sector Buildings from paying registration-cum-rating fee in advance at the time of registration. The projects registered with GRIHA include Commonwealth Games Village project in New Delhi.

The Committee of Secretaries (CoS) in its meeting held in December 2009 took a decision that all new buildings of Central Government/Public Sector Undertakings would at least meet the requirements of GRIHA-3 Star, though every effort would be made by them to achieve higher star rating wherever site conditions permit to do so. Ideally, all organizations would aim at reaching GRIHA 4-star rating.

The Ministry also got developed a set of climate zone-wise passive architectural guidelines in line with ECBC 2007, NBC 2005, EIA notification 2006 and other relevant IS codes, including other energy efficiency and renewable measures for buildings both in residential and commercial sectors to be followed by CPWD and Municipal Corporations all over the country. The guidelines have been sent to M/O Urban Development for use in drafting bye-laws. The Ministry provided support to TERI for developing training manuals. It is essential that all builders and architects design, and homeowners demand green buildings. Institutional buildings must also do so. There are some other areas also.

The Ministry has supported programmes for capacity building and awareness generation through various stakeholders including Indian Institute of Architects (IIA), Society for Energy Engineers and Managers (SEEM), and CII, besides TERI. A detailed plan to train CPWD engineers and architects is being implemented by GRIHA with the support of the Ministry. Detailed manuals for trainers and evaluators are being prepared to support implementation of the green building rating system in the country.

The Ministry has recently set up an expert Group represented by architects, engineers, builders, renewable energy experts, and policy makers to look into policies and procedures for setting up new 'sustainability -oriented' and 'environment-friendly' large development areas including cities.

- **Solar Air Heating/Steam Generating Systems:** Solar Steam Generating systems have found good application for air conditioning also at places where conventional fuel is used to operate vapour absorption machines. Specially designed and customized systems have been set up at a hospital in Thane and a motorcycle manufacturing factory near Chennai. Solar air conditioning systems using concentrating technology are efficient and

require less space. During the year, six systems with collector area of around 600 m² were sanctioned. Five Solar Steam cooking systems with 1763 m² dish area were sanctioned. This is another area which Ministry is promoting particularly for large cooking institutions—philanthropic, religious, educational, hospitals and hotels. The Minister inaugurated a Solar Cooking System for 20,000 people at Shirdi, Maharashtra on 30 July 2009.

- **Energy Recovery From Urban Waste:** Execution work on the generation of 8 MW power from Municipal Solid Waste at Bengaluru, Karnataka is in progress. Another project of 10 MW capacity in Delhi has also been taken up. However, the problem of segregation of waste remains the biggest barrier to upscale such projects. MoUs have been signed between a project developer and five Gaushalas in Haryana for setting up projects for generation of 350 kW at each Gaushala from cattle dung and agricultural wastes. This is a new initiative of the Ministry.
- In view of the availability of large quantities of food and kitchen waste at places of community cooking/large kitchens and eating joints, Ministry has initiated a new project for biogas production from such waste under its modified scheme on Special Area Demonstration Projects. Fifty per cent support is given for government establishments and 25 per cent for private establishments is being provided under the scheme.

Renewable Energy Application in Industry

These include energy recovery and power generation from industrial and commercial wastes and effluents, and cogeneration.

- **Energy Recovery and Power Generation from Industrial and Commercial Wastes & Effluents:** Eight industrial waste-to-energy projects with a total capacity of about 14 MWeq were completed during the year. These include five power projects of 12 MW from biogas in distilleries in the States of Maharashtra and Uttar Pradesh; one project each of about 1 MW at starch factories in Gujarat and Karnataka. Another project for generation of 3000 m³ biogas from yeast industry waste has been set up in Maharashtra. Ten industrial waste-to-energy projects with a total capacity of about 25 MW are under installation in Andhra Pradesh, Tamil Nadu and Uttar Pradesh. A guidebook on biogas based power projects in distilleries was prepared for promoting the utilization of biogas being generated from spent wash at distilleries. Industries need to come forward in a big way to realize this potential as quickly as possible because it is a win-win situation. Industries gain financially, waste is effectively treated which is good for the environment, methane emissions are reduced, and desperately needed power is generated.
- **Biomass Energy and Cogeneration (Non-Bagasse in Industry and Other Institutions):** A total of 11 biomass co-generation (non-bagasse) projects with a total capacity of about 40 MW were completed during the year including captive power projects especially in paper and rice mills, oil industries, petro-chemicals and tyre industries. In addition to the above, 11 projects aggregating up to 50 MW capacity are under installation in Bihar, Haryana, Punjab, Uttar Pradesh and West Bengal. There is a huge potential of cogeneration in bigger rice mills producing parboiled rice, and of replacing diesel by gasifiers using rice husk in small rice mills. These are in hundreds.

A rice mill of one tonne per hour capacity can save about 25,000 litres of diesel in a year. The Ministry is trying to take this up in a mission mode in Bihar, Orissa, eastern, Uttar Pradesh and West Bengal.

- **Biomass Gasifier Systems:** 6 biomass gasifiers for thermal applications with a total capacity of about 4 MEEq have been installed in various industries such as bakeries, die-casting and food processing units and 12 biomass gasifier systems with a total capacity of 2.00 MW for electrical applications have been installed in various industries. In addition, 30 biomass gasifier systems with a total capacity of about 6 MWEq are under installation in various industries for thermal/electrical applications.

Grid-Interactive Power from Renewables

The Central Electricity Regulatory Commission (CERC) issued during the year new guidelines for tariff determination for all renewable energy sources including wind energy. This will give further impetus to the development of the sector on its adoption by the state regulators as the new guidelines suggest attractive tariff rates for renewables. Grid power is from wind, small hydro, biomass and solar.

- **Wind power projects:** Wind has been the major source during the last few years. During the 10th Plan 5427 MW was added. Therefore the target for 11th Plan was upscaled to 10,500 MW. However, the achievement up to February 2010 is only 3855 MW. Recessionary conditions severely affected this sector. Besides, since incentives of accelerated depreciation has been the main driver, independent power producers, who could not avail of this, remained at a disadvantage. There have also been local problems in Maharashtra, reluctance of TNEB and serious problems of land/forest clearance in Karnataka. During the year, new tariff was declared in States of Rajasthan and Tamil Nadu.
- In order to encourage entry of independent power producers, and to promote foreign direct investment in this sector, Ministry announced in November 2009, a new scheme on Generation Based Incentive of ₹ 0.50 per unit of electricity fed into the grid by wind power projects to be provided over and above the tariff given by the state utilities, with an overall cap of ₹ 62 lakh per MW. The GBI would be limited to cover a maximum capacity addition of 4000 MW during the 11th Plan only. States are being pursued to resolve local problems. Under the Mid term Appraisal (MTA) the target for 11th Plan has been reduced to 9000 MW. Meanwhile, several foreign companies have established manufacturing facilities in India during the year.
- **Biomass power/bagasse cogeneration projects:** During the year, biomass power/ bagasse cogeneration capacity addition of 384 MW (125 MW biomass projects and 259 MW bagasse cogeneration projects) was achieved in the states of Andhra Pradesh, Chhattisgarh, Karnataka, Maharashtra, Punjab, Uttar Pradesh and West Bengal. The cumulative biomass power/ bagasse cogeneration based power capacity has reached 2,136 MW, which comprises 829 MW of biomass power projects and 1307 MW of bagasse cogeneration projects.

The guidelines and incentive structure are being rationalized for promotion of biomass projects based on the findings of a ministry-sponsored study on performance assessment of the grid-connected biomass power plants in the

northern and southern states. The findings of the study showed that on a country-wide average, around 50 per cent of electricity generated in biomass power projects was derived from rice husk, 30 per cent from various woods (mainly Juliflora) and balance was from agricultural/crop residues.

Adoption of optimum cogeneration projects in cooperative/public sector sugar mills by Independent Power Producers on BOOT basis has been adopted by Maharashtra, Tamil Nadu and Punjab. The Govt. of Maharashtra under Urjankur Trust Initiative, Tamil Nadu Electricity Board and Sugarfed, Punjab are developing cogeneration power projects at selected co-operative sugar mills under BOOT basis. These three models will help to overcome the barriers of co-operative/public sector sugar mills and have excellent potential for replicability in other sugar producing states such as Andhra Pradesh, Gujarat, Karnataka and Uttar Pradesh.

The Ministry of Environment & Forests (MoEF) in December 2009, at the initiative of MNRE, has exempted biomass based power plants upto 15 MW from purview of EIA notification 2006 by MoEF, which would facilitate faster implementation of the projects. Ministry has also prepared draft revised guidelines for implementation of biomass power projects and posted on the Ministry's website for soliciting comments from all concerned. The guidelines will be finalized during the year. Ministry is of the view that smaller plants at the tail end of the grid need to be prioritized as against large sized biomass plants.

- **Small Hydro Power Projects:** A total of 5718 potential sites with an aggregate capacity of 15,384 MW have so far been identified in the country. A new, more attractive, scheme was announced during the year to provide financial support to SHP projects, both in public and private sector including support for renovation and modernization of old SHP projects, development of waterfalls and micro hydel projects.

So far, 700 small hydropower projects aggregating to 2,558 MW have been set up in various parts of the country. Out of this, 192 private sector SHP projects with an aggregate capacity of 1005 MW have been set up mainly in Andhra Pradesh, Himachal Pradesh, Karnataka, Maharashtra, Punjab and Uttarakhand. During the year, SHP projects aggregating to 129 MW capacity were commissioned up to 31 December 2009. In addition, 296 projects of 936 MW are at various stages of implementation.

It is important that the hill States of Himachal Pradesh, Jammu & Kashmir and Uttarakhand take steps to quickly realize the small hydro potential as these projects do not disturb the environment and have a short gestation period.

- **Solar Power :** Under the scheme Demonstration Programme on Grid Connected Solar Power Generation Ministry has cleared several project proposals. By December 2009, two projects with 1.00 MWp capacity each have been installed by West Bengal Green Development Corporation Limited at Jamuria Village in Asansol district of West Bengal and Azure Power Private Limited at Awhan village in Amritsar district of Punjab. The Karnataka Power Transmission Corporation Limited has also set up 4.00 MWp grid connected power plants in the State. A 1.00 MWp capacity solar power plant

at Raichur district in Karnataka by Karnataka Power Corporation Limited, 54 kWp capacity plant at Pooth-khurd, New Delhi and 43 kWp capacity plant at New Delhi by NDPL have been sanctioned by December 2009. These projects are under implementation.

A total grid-connected renewable power generation capacity of 15,694 MW has been achieved till 31 December 2009, which is about 10 per cent of the total installed power generating capacity in the country. It includes wind power of 10,925 MW, small hydropower of 2,559 MW, biomass power of around 2,137 MW, and around 6 MW Solar Power. A capacity addition of 14,000 MW is targeted during the 11th Plan period that would take the renewable power generating capacity to nearly 25,000 MW by 2012. This momentum is likely to be sustained and it is envisaged that the renewable power capacity in the country will cross 87,000 MW by 2022.

Currently diesel generating sets are being used in rural and urban areas to provide power during power outages and in those areas where grid power quality makes it imperative to operate machines on quality power. In such situations small wind and hybrid systems, biomass gasifiers and SPV roof top power plants can be used to produce power to replace diesel.

Small Wind Energy and Hybrid Systems : An aggregate capacity of 954 kW of the aero-generators/hybrid systems has been installed under the programme, including five systems with installed capacity of 105 kW during the year. Wind-solar hybrid systems of 95 kW were installed in the State of Goa during the year and other systems of over 200 kW have been sanctioned. The scheme has been modified during the year to remove delays, rationalize central financial assistance and Type Testing of the aerogenerators to improve the quality of systems. The modified scheme, effective from next financial year, will also be implemented in market mode with active involvement of manufacturers. This will help extend reach and upscale the market.

- **Biogas Based distributed/Grid Power Generation Programmes :** A total of 14 projects with cumulative installed capacity of 60 kW have been commissioned in the States of Kerala and Tamil Nadu while one new project has been sanctioned, and other projects from the States of Andhra Pradesh, Goa, Karnataka, Maharashtra and Tamil Nadu are under consideration.

Research & Development and New Technologies

Research & development efforts of the Ministry are directed to lead to improvement of efficiency, cost reduction, reliability, durability of the new and renewable energy devices and systems. Two meetings of the RDD&D Sectoral Project Appraisal Committee (RDSPAC) and one meeting of RDD&D Project Appraisal Committee (RDPAC) were organized and 21 projects in solar energy, bio-energy and new technologies were recommended. The following new R&D and Demonstration projects were taken up during the year:

- Eight technology demonstration projects on biogas generation for various application including biogas based refrigerator;
- A project aimed at development of a MW Scale National Solar Thermal Power Testing and Research facility in public-private partnership mode with IIT Bombay, Mumbai and eight other projects on technology demonstration have been taken up during the year.
- Three new RD&D projects were supported during the year at the Indian Institute of Science, Bengaluru; Electrical Research and Development

Association, Vadodara and Indian Institute of Technology, Kharagpur for production of hydrogen through gasification of biomass, electrolysis of water using electricity generated by small wind electric generator(s) and biological routes respectively.

- Two RD&D projects on hydrogen storage in hydrides and carbon materials were sanctioned to BHU, Varanasi and IIT Madras, Chennai respectively.
- A new project for development and demonstration of 1.5 hydrogen fuelled three wheelers was taken up for implementation by IIT Delhi and Mahindra & Mahindra with partial financial support from the UNIDO's International centre of Hydrogen Energy Technology, Istanbul, Turkey during the year. These three wheelers would use high pressure gaseous hydrogen as fuel.
- Three Mission Mode Projects in the areas of hydrogen production through biological route (IIT Kharagpur as the lead institute), hydrogen storage in hydrides (BHU as the lead institute) and carbon materials (IIT Chennai as the lead institute) were sanctioned by the Ministry for financial support.
- NHPC Ltd. is in the process of awarding contracts through international bidding process for the pilot 3.75 MW capacity Tidal Power project at Durgaduani in Sunderbans area of West Bengal, sanctioned in the year 2008-09.

TECHNICAL INSTITUTIONS

The following specialized institutions functioned under the administrative control of the Ministry:

Solar Energy Centre (SEC)

- During the year a total of 113 PV modules of crystalline and thin film technology were tested. Testing of 52 solar lanterns, 39 home lighting systems, 43 street lighting systems and 9 luminaries and charge controllers based on Light emitting diode (LED) as well as compact fluorescent lamp (CFL) have been completed.
- The PV module reliability R&D facility of the Centre has been expanded and enhanced during the year through a cooperative research project with National Physical Laboratory (NPL) New Delhi and National Institute of Advanced Industrial Science and Technology (AIST), Japan.
- A 20 kW solar photovoltaic power plant in three different sub-units each with 10kWp, 5 kWp and 5kWp capacity has been set up for validation of various design configurations.

Two projects to develop a solar power plant simulator that simulates the performance of the actual solar thermal plant through component and system models based on appropriate mathematical equations and a pilot project based on an indigenously developed solar concentrator technology that augurs to deliver low cost thermal energy.

Centre for Wind Energy Technology

- Collection of wind speed at different hub heights by deploying Sound Detection and Ranging instruments for wind resource assessment was continued.

- A wind energy forecasting project for a 600 kW experimental wind turbine has been initiated.
- Renewal of Provisional Type Certification of three wind turbine models was completed.
- Preparation of Indian Wind Atlas in association with Riso National Laboratory, Denmark using micro and meso scale models, and wind resource assessment studies at different locations, has been completed and the wind atlas is under publication.

S.S.S. National Institute of Renewable Energy (SSS-NIRE)

- The establishment of this Institute is in its final stages. Nine officers/officials including its first Director have joined the Institute during the year. Work for setting up of various biomass laboratories for R&D purposes and testing is in progress.

Financial Institution-Indian Renewable Energy Development Agency (IREDA)

Loans aggregating about ₹ 1,542 crore were sanctioned during the year compared to ₹ 1,491.04 crore in FY 2008-09. The loan sanctions would lead to the establishment of power projects of 639 MW capacity compared to the previous year capacity addition of 402 MW. The actual disbursements in 2009-10 were ₹ 564.37 crore compared to ₹ 770.95 crore in FY 2008-09. The cumulative sanctions and disbursements were ₹ 11,897.12 crore and ₹ 6,318.42 crore respectively.

IREDA has been upgraded by the Ministry upon the recommendations of the Bureau of Public Enterprises, Ministry of Industry, from a Schedule 'C' Company to a Schedule 'B' Company.

INTERNATIONAL CO-OPERATION

The following international co-operation programmes were undertaken during the year:

- International cooperation activities on development and deployment of new and renewable energy technologies were actively pursued on bilateral and multilateral platforms.
- United States of America—cooperation in solar resource assessment between SEC and NREL and an MoU for cooperation in Biofuels was finalized.
- The Minister for New and Renewable Energy held bilateral discussions with dignitaries from Australia, European Commission, Bangladesh, Republic of Korea, USA, UK, Spain and Finland.
- Interactions were held with multilateral organizations, i.e., UNESCO, IRENA, IEA, CSIRO, and European Commission to develop renewable energy deployment projects.
- Memoranda of Understanding were signed between India and Scotland; India and Chile; India and USA for bilateral cooperation in new and renewable energy and biofuels.

Details of estimated renewable energy and cumulative achievements under different programmes as on 31 December 2009 are given in the following table.

No.	Programmes/Systems	Estimated Potential	Achievement during 2009-10	Cumulative Achievement
I Power From Renewables				
A Grid-Interactive renewable power				
1	Biomass Power (Agro residues & Plantations)	16,881	126.50MW	829.50 MW
2	Wind Power	45,195	683.00 MW	10,925.00 MW
3	Small Hydro Power (up to 25 MW)	15,000	129.15 MW	2,558.92 MW
4	Cogeneration-bagasse	5,000	259.00 MW	1,308.00 MW
5	Waste to Energy (Urban & Industrial)	2,700	4.72 MW	65.01 MW
6	Solar Power	50 MW/sq. km	6.10 MW	9.13 MW
	Total		1,208.47 MW	15,694.56 MW
B Off-Grid/Distributed Renewable Power including Captive/CHP Plants				
7	Biomass/Cogeneration (non-Bagasse)		39.80 MW	210.57 MW
8.	Biomass Gasifier		4.10 MWeq	109.62 MWeq
9.	Energy Recovery from Waste		9.32 MWeq	40.25 Meq
10	Solar PV Power Plants		105.15 kWp	2.410 MWp
11	Aero-generator Hybrid Systems		105.00 kW	0.954 MW
	Total		53.43 MWeq	363.804 MWeq
II Decentralized Renewable Energy Systems				
12	Family Type Biogas Plants (nos.)	120 lakh	51,732	41,85,442
13	Solar Photovoltaic Systems			
	i. Street Lighting Systems (nos.)		8,680	88,297
	ii. Home Lighting Systems (nos)		71,632	5,84,461
	iii. Solar Lanterns (nos).		82,999	7,92,285
14	Solar Thermal Programme			
	i. Solar Water Heating systems - collector area (m ²)	140 million	0.50 million	3.40 million
	ii Solar Cookers (nos)		0.02 lakh	6.39 lakh
15	Wind Pumps (nos.)		5	1,347
16	Solar Photovoltaic Pumps (nos)		106	7,334
III Remote Village Electrification			- 703 villages and hamlets	5000 villages /1257 hamlets
IV Other Programmes				
17	Energy Parks		3 nos	513
18	Aditya Solar Shops		9 nos	302
19	Battery Operated Vehicles		1	305

MWeq = Megawatt equivalent ; MW = Magawatt; kWp=Kilowatt Peak; sq.m.=Square Metre

12 Environment

THE primary concerns of the Ministry of Environment & Forests relate to implementation of policies and programmes on conservation of the country's natural resources including lakes and rivers, its biodiversity, forests and wildlife, ensuring the welfare of animals and prevention and abatement of pollution. While implementing these policies and programmes, the Ministry is guided by the principle of sustainable development and enhancement of human well-being. The Ministry also serves as the nodal agency in the country for the United Nations Environment Programme (UNEP), South Asia Co-operative Environment Programme (SACEP), International Centre for Integrated Mountain Development (ICIMOD) and for the follow-up of the United Nations Conference on Environment and Development (UNCED). The Ministry is also entrusted with the issues relating to multilateral bodies such as the Commission on Sustainable Development (CSD), Global Environment Facility (GEF) and of regional bodies like Economic and Social Council for Asia and Pacific (ESCAP) and South Asian Association for Regional Co-operation (SAARC) on matters pertaining to environment.

The broad objectives of the Ministry are:

- Conservation and survey of flora, fauna, forests and wildlife,
- Prevention and control of pollution,
- Afforestation and regeneration of degraded areas,
- Protection of the environment, and
- Ensuring the welfare of animals.

These objectives are well supported by a set of legislative and regulatory measures, aimed at the preservation, conservation and protection of the environment. Besides the legislative measures, a Natural Conservation Strategy and Policy Statement on Environment and Development, 1992; National Forest Policy, 1988; a Policy Statement on Abatement of Pollution, 1992; and a National Environment Policy 2006 have also been evolved.

NATURAL RESOURCES - SURVEY AND EXPLORATION

SURVEY OF FLORA

BOTANICAL SURVEY OF INDIA

The Botanical Survey of India (BSI) is the apex research organization under the Ministry of Environment and Forests, Government of India for carrying out taxonomic and floristic studies on wild plant resources of the country. It was established on 13 February 1890 with the basic objective to explore the plant resources of the country and to identify the plant species with economic virtues. Sir George King, the then Superintendent of the 'Royal Botanic Garden' Calcutta was appointed as First ex-officio Honorary Director of the BSI. After Independence the department was reorganized in 1954 by Government of India as a part of scientific development of the country. During the successive plan periods, the functional base of BSI was further expanded to include various new areas such as inventorying of endemic, rare and threatened plant species; evolving conservation strategies; studies on fragile

ecosystems and protected areas, like wildlife sanctuaries, natural parks and biosphere reserves; multiplication and maintenance of endemic and threatened plant species, wild ornamentals, etc., in Botanic Gardens and Orchidaria; documentation of traditional knowledge associated with plants and development of National Database of herbarium and live collections, plant distribution and nomenclature, botanical paintings/illustrations, plant uses, etc. Some of the activities of the BSI during 2009-10 are as under :

- Fifty-two field tours were undertaken for floristic/ethno botanical and other studies of higher and lower groups of plants by different regional centres and units of BSI.
- During the field tours, *ca* 1950 specimens have been collected, 1340 of these collected specimens belonging to *ca* 320 species were identified by scientists of different regional centres and units which resulted in the discovery of one genus and twenty-five species as new to India.

SURVEY OF FAUNA

ZOOLOGICAL SURVEY OF INDIA

The Zoological Survey of India (ZSI), a premier institute under the Ministry, has been undertaking survey, exploration and research leading to the advancement of our knowledge on the exceptionally rich faunal diversity of the country. Since its inception in 1916, with its Headquarters at Kolkata and 16 Regional Stations located in different parts of the country, ZSI in recent years, has reoriented its plan of work by grouping the survey and studies under six major programmes, viz. Study Fauna of States, Fauna of Conservation areas, Fauna of Important Ecosystems, Status survey of endangered species, Fauna of India and Ecological Studies/Environment Impact Assessment Survey and Identification of Wildlife Seized material related to Wildlife (Protection) Act, 1972, etc.

During 2009-10, some of the activities of the ZSI are as under :

- Scientists discovered 39 species new to science.
- A total of 38 extensive surveys of ecosystems were undertaken.
- A total of 9 extensive surveys of protected areas were undertaken.
- A total of 16 state faunal surveys were undertaken in the States and Union Territories.
- A total of 14 programmes under ecological studies, river systems, agro ecosystems, bioacoustics and Eastern Ghats were undertaken.
- A total of 15532 specimens including 789 Aves (observed) and 234 mammals (sighted) under 18 faunal groups were collected, of which 558 species were of 12 faunal groups

FOREST RESOURCES AND SURVEY

FOREST SURVEY OF INDIA, DEHRADUN

Forests are renewable resources and contribute substantially to economic development. They play a major role in enhancing the quality of environment. Forest Survey of India (FSI), a premier national organization for forest resource assessment is for collection of data on scientific lines through countrywide comprehensive forest resources survey at regular intervals. The FSI with its Headquarters at Dehradun and

four Regional Offices at Shimla, Kolkata, Nagpur and Bengaluru, work in close coordination to carry out various activities of FSI. Besides administration as well as technical control, the major activity at the Headquarters is forest cover mapping data processing and conducting training. The zonal offices are mainly engaged in the inventory of forests and trees outside forests and supporting Headquarters in other activities as and when assigned.

- Forest Survey of India (FSI) assesses forest cover of the country by interpretation of remote sensing satellite data and publishes the results in a biennial report called 'State of Forest Report (SFR)'. With the release of the 'India State of Forest Report 2009' so far 11 Cycles of forest cover assessment have been completed.
- After the creation of the FSI the field inventory remained the primary activity with a modified design covering the whole country. More than 80 per cent forest area of the country was inventoried comprehensively by 2000.
- India's forest cover in 2007 is 69.09 million ha which is 21.02 per cent of the geographical area. Of this, 8.35 million ha is very dense forest, 31.90 million ha is moderately dense forest and the rest 28.84 million ha is open forest. A comparison of the forest cover of the country between the present and the preceding assessments (2005) shows that there is a net gain of 728 km² = square km during the period.
- The forest cover data was analyzed in GIS format to determine the forest cover in different altitudinal zones for the first time. The zones for analysis were : 0-500 m, 500-1000 m, 1000-2000 m, 2000-3000 m and above 3000 m and above 4000 m (not suitable for increasing forest). As per this scale, the forest and free cover of the country becomes 25.25 per cent of the geographical area.
- The State/UT wise forest cover in the country shows that Madhya Pradesh with 7.77 million ha (constituting 11.25 per cent) has the largest area under forest cover, followed by Arunachal Pradesh (9.75 per cent), Chhattisgarh (8.09 per cent), Maharashtra (7.33 per cent) and Orissa (7.07 per cent). The seven North-East States together account for about one fourth of the total forest cover of the country.
- The latest assessment shows that mangrove cover in India is 4,639 km². West Bengal has nearly half of the country's mangroves.
- India's tree cover has been estimated as 92769 km² constituting 2.82 per cent of the geographical area of the country. Tree cover constitutes the largest area in Maharashtra (9,466 km²) followed by Gujarat (8,390 km²), Rajasthan (8,274 km²) and Uttar Pradesh (7,381 km²).

CONSERVATION

MANGROVES AND CORAL REEFS

- The Ministry is at the forefront in regard to conservation and management of mangroves and coral reefs and accords high priority to the conservation and management of Mangroves and coral reefs in the country. The Coastal Regulation Zone Notification (1991) under the Environmental Protection Act (1986) recognizes the mangrove and coral reefs areas as ecologically sensitive and categorizes them as CRZ-I (i) which implies that these areas are accorded protection of the highest order. Under the promotional measures, the Government has identified 28 mangrove areas and four coral reefs areas on a country-wide basis for intensive conservation and management. The National Policy, 2006

recognizes that mangroves and coral reefs are important coastal environmental resources which provide habitats for marine species; protection from extreme weather events; and a resource base for sustainable tourism. The Policy also recognizes that mangroves, as indeed the other coastal resources like coral reefs and coastal forests, face threats from various quarters.

- As per the State of Forest Report 2009, the mangroves cover in the country is 4,639 sq km which is 0.14 per cent of the country's total geographical area. There has been an increase of 58 sq km in mangrove cover mainly because of the plantations and protection measures in the states of Gujarat, Orissa, Tamil Nadu and West Bengal. Decrease in Mangrove cover in Andamans & Nicobar islands is attributed to after effects of tsunami.

CORAL REEFS

The four major coral reefs areas identified for intensive conservation and management are:

- Gulf of Mannar
- Gulf of Kachchh
- Lakshadweep and
- Andaman and Nicobar Islands.
- The Indian reef area is estimated to be 2,375 km².
- Two tier system at national and State levels are in operation for effective coordination to implement the Scheme on Mangroves and Coral Reefs.

BIOSPHERE RESERVES

Biosphere Reserves are areas of terrestrial and coastal ecosystems which are internationally recognized within the framework of UNESCO's Man and Biosphere (MAB) programme. These Reserves are required to meet a minimal set of criteria and adhere to a minimal set of conditions before being admitted to the World Network of Biosphere Reserves designated by UNESCO. These Reserves are rich in biological and cultural diversity and encompass unique features of exceptionally pristine nature. The goal is to facilitate conservation of representative landscapes and their immense biological diversity and cultural heritage, foster economic and human development which is culturally and ecologically sustainable and to provide support for research, monitoring education and information exchange. The scheme is a pioneering effort at pursuing the increasingly difficult yet urgent task of conserving ecological diversity under mounting pressures. India has been divided into ten Bio-geographic zones and these zones together consist of twenty-five bio-geographic provinces. The aim is to designate one representative site as Biosphere Reserve in each bio-geographic province for long term conservation.

- The programme was initiated in 1986 and till date 16 sites have been designated as Biosphere Reserve (BR) in different parts of the country.
- Out of the 16 Biosphere Reserves designated nationally, 7 Biosphere Reserves namely Sunderbans (West Bengal), Gulf of Mannar (Tamil Nadu), Nilgiri (Tamil Nadu, Kerala and Karnataka), Nanda Devi, (Uttarakhand) Pachmarhi (Madhya Pradesh), Simlipal (Orissa) and Nokrek (Meghalaya) have been included in the World Network of Biosphere Reserves so far. The proposals in respect of Kanchenjunga (Sikkim), Manas (Assam), Simlipal (Orissa) and Pachmarhi

(Madhya Pradesh) are in active consideration of the UNESCO for their recognition on the world network. Efforts are being made for getting remaining Biosphere Reserves included in the World Network of Biosphere Reserves.

- The core areas of the Biosphere Reserves continue to be protected under the WildLife (Protection) Act, 1972, Indian Forest Act, 1927 and Forest Conservation Act, 1980. However, separate Regulation within the framework of existing Environment (Protection) Act, 1986 is being firmed up to regulate activities within Buffer Zone of the Biosphere Reserves.

BIODIVERSITY CONSERVATION

Biodiversity is the variability among living organisms and ecological complexes of which they are part, including diversity within and between species and ecosystems. Biodiversity has direct consumptive value in food, agriculture, medicine and industry. A scheme on biodiversity conservation was initiated earlier to ensure coordination among various agencies dealing with the issues related to conservation of biodiversity and to review, monitor and evolve adequate policy instruments for the same.

- The Convention on Biological Diversity (CBD), one of the key agreements adopted during the Earth Summit held in Rio de Janeiro in 1992, is the first comprehensive global agreement which addresses all aspects relating to biodiversity. The CBD, which has near universal membership with 190 countries as its Parties, sets out commitments for maintaining the world's ecological underpinnings, while pursuing economic development. The Convention, while reaffirming sovereign rights of nations over their biological resources, establishes three main goals: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits from the use of genetic resources. India is a party to the CBD.
- India hosted two meetings for the CBD in 2009 i.e. an Expert Meeting on Traditional Knowledge in Hyderabad from 16-19 June 2009 and an Asia Pacific Regional Workshop on Protected Areas in Dehradun on 12-15 October 2009.
- In pursuance to the CBD, India had enacted the Biological Diversity Act in 2002. The Biological Rules were notified in 2004. The Act addresses access to biological resources and associated traditional knowledge to ensure equitable sharing of benefits arising out of their use to the country and its people. India is one of the first few countries to have enacted such a legislation. The Act is to be implemented through a three-tiered institutional structure: National Biodiversity Authority; State Biodiversity Authority and Biodiversity management committees.

GENETIC ENGINEERING APPROVAL COMMITTEE

The Ministry under the Environment Protection Act (1986), has notified the "Rules for the Manufacture, Use, Import, Export and Storage of Hazardous Micro Organisms/ Genetically engineered Organisms or Cells 1989" (known as Rules, 1989) to ensure that research and development and testing of LMOs prior to environmental release are conducted in a safe and scientific manner. The Genetic Engineering Approval Committee, the apex body under the Rules, 1989 has the mandate to approve the large scale trials and commercial release of Living Modified Organisms (LMOs). The rules also cover the application of hazardous micro organisms which may not be genetically modified. Hazardous micro organisms include those which are pathogenic to animals as well as plants.

- The Bt technology was deployed in cotton crop through genetic engineering techniques for control of bollworms the major pest thereby reducing the risk of crop failures and use of pesticides. Bt cotton producing a natural insecticide that comes from the ubiquitous soil bacterium known as *Bacillus Thuringiensis* was approved by the Genetic Engineering Approval Committee (GEAC) for introduction in India in 2002 after extensive biosafety and agronomic testing. As of date, the GEAC has approved several 135 Bt cotton hybrids expressing Cry 1 Ac gene (MON 531 event) and stacked genes Cry1 Ac and Cry 2Ab (MON 15985 event)-BG-II developed by M/s Mahyco, encoding fusion genes (cry 1Ab+Cry Ac) 'GFM developed by M/s Nath Seeds and cry 1Ac gene (Event-1) developed by M/s J.K. Agrigenetics Ltd. Cry IAC gene (Dharwad event) developed by CICR and Cry IC (event 9124) developed by M/s Metahelix Life Sciences. During kharif 2009, 610 BT cotton hybrids were recommended by the Standing Committee constituted by GEAC.
- The Ministry has set up a sub-committee, to review the need for case by case regulation of Bt cotton expressing cry 1Ac (MON 531 event) which has been commercialized and is extensively being cultivated in majority of the cotton growing area since 2002.

CARTAGENA BIOSAFETY PROTOCOL

The Cartagena Protocol on Biosafety, the first international regulatory framework for safe transfer, handling and use of Living Modified Organisms (LMOs) was negotiated under the aegis of the Convention on Biological Diversity (CBD). The Protocol was adopted on 29 January, 2000. India has acceded the Biosafety Protocol on 17 January 2003. The Protocol has come into force on 11 September 2003. As of date, 157 countries are parties to the Protocol.

The main objective of the protocol is to contribute to ensuring an adequate level of production in the field of the safe transfer, handling of LMOs resulting from modern biotechnology that may have adverse effect on the conservation and sustainable use of biological diversity taking into account risk to human health.

ALL INDIA COORDINATED PROJECT ON CAPACITY BUILDING IN TAXONOMY (AICOPTAX)

Taxonomy is the science which helps in exploration, identification and description of living organisms. However, the scope of taxonomy does not end with this. A sound taxonomic base is a pre-requisite for environmental assessment, ecological research, effective conservation, management and sustainable use of biological resources.

- About 90,000 species of animals and 47,000 species of plants have been identified and described so far. A large number of animals and plants are yet to be explored, identified and described.
- As a signatory to the Convention on Biological Diversity (CBD) held in Rio de Janeiro in 1992, India has committed itself to capacity building in taxonomy and taken up exploration and preparation of an inventory of living organisms. The Ministry has set up an All India Coordinated Project on Taxonomy. The Project has organized specialist groups drawn from Universities, Botanical and Zoological Surveys of India to take up taxonomic work on animal viruses, bacteria and archaea, algae, fungi, lichens, bryophytes, pteridophytes, gymnosperms, palms, grasses, bamboos, orchids, helminthes and nematodes, Microlepidoptera and Mollusca. The scheme has been continued during 2009-

10 and financial assistance has been provided to 13 thematic areas for undertaking taxonomic research work.

BOTANIC GARDEN OF THE INDIAN REPUBLIC (BGIR), NOIDA

The BGIR was *inter-alia* set up in April 2002 to facilitate *ex situ* conservation and propagation of rare and threatened indigenous plants of the country, serve as a 'Centre of Excellence' for research and training and thereby cater to the need for conservation of endangered species in the region, and build public awareness on the conservation needs through education on conservation of plant diversity. The BGIR is presently carrying out the basic scientific/technical work to facilitate project execution in context of research/field operations.

- The Woodland/Arboretum Development programme continued with about 1040 saplings belonging to 79 species being introduced in the various sections of the garden. Saplings of about 44 indigenous plant species including *Acrocarpus fraxinifolius*, *odenanthera pavoniana*, *pterocarpus marsupim*, *Madhuca longifolia* etc. were introduced in the woodlands sections.

UNDP-GOI CCF II Project on promoting Conservation of Medicinal Plants and Traditional Knowledge for enhancing Health and Livelihood Security

The project was initiated in 2005-06 at an estimated cost of ₹ 12.90 crore and is being implemented in nine States. The Foundation for Revitalization of Local Health Tradition (FRLHT), Bengaluru is coordinating the project. The States namely Andhra Pradesh, Kerala, Tamil Nadu, Madhya Pradesh, Rajasthan, Orissa, West Bengal, Karnataka and Maharashtra are participating in the project. The main objective of the project is supporting conservation of medicinal plants and traditional knowledge for enhancing health and livelihood security. The key thrust of the project is to promote conservation of medicinal plants and related traditional knowledge with local people and mainstreaming these into the existing policies and programmes of the forestry and health sector.

- A high Level Project Management Board (PMB) to oversee and facilitate the interdepartmental coordination and an Empowered Project Steering Committee (EPSC) to guide the implementation of the Project have been constituted. The Technical coordination and implementation of the project is being done by the Foundation for Revitalization of Local Health Traditions, Bengaluru. The field level project components are being implemented by the respective State Forest Departments and selected NGOs.
- The Project States have constituted Project Steering Committees and have prepared work plans for their respective components. The process of identification of sites for establishing Medicinal Plants Conservation Areas (MPCAs) in four states, establishment of sustainable harvest of NTFPS and medicinal Plants in three states, need assessment for central seed centres in four states, and capacity building for establishing Home Herbal Gardens (HHGs) has started. Rapid Threat Assessment exercises called Conservation Area of Medicinal Plants (CAMP) workshops, as per IUCN guidelines for prioritized medicinal Plants species, are being organized in three states, viz. Orissa, Rajasthan and West Bengal.

ASSISTANCE TO BOTANIC GARDENS

The scheme on Assistance to Botanic Gardens and Centres for *ex-situ* conservation was initiated in 1992 to augment *ex-situ* conservation of rare endemic plants. One

time financial assistance is provided to the Botanic Gardens and Centres of *ex-situ* Conservation, for improvement of their infrastructural facilities to facilitate *ex-situ* conservation of rare endemic plants. The achievements made in these Botanic Gardens are periodically monitored with the help of Botanical Survey of India. Under the scheme, 268 projects have been supported so far to various organisations maintaining botanic gardens and centres of *ex-situ* conservation.

FOREST CONSERVATION

The mandate of the Forest Conservation Division is to implement the Forest (Conservation) Act, 1980, which was enacted on 25 October 1980. This Act deals with grant of forestry clearances for diversion of forest lands for non-forestry purposes in respect of development projects like power, roads, railways, irrigation, mining, schools, defence, drinking water, resettlement, rehabilitation of people etc. This Act is regulatory in nature, not prohibitory.

- In 2009 up to 31 December, about 1969 developmental projects involving about 33,187.20 hectares forest area have been granted forestry clearance. These include the projects for power generation, irrigation, construction of roads, railway lines, transmission lines, drinking water supply projects, village electricity, schools, hospitals etc.
- To boost the development of underdeveloped area, including tribal areas general approval has been accorded for underground laying of electric cable and wires to individual households, drinking water supply/water pipelines, telephone lines etc.
- Good practices have been adopted to ensure transparency in the system of forestry clearances. The status of all cases received in the ministry is regularly monitored. All these information have been placed in the public domain.

The Ministry has six Regional Offices located at Bengaluru, Bhopal, Bhubaneswar, Lucknow, Shillong and Chandigarh with its Headquarters in the Ministry at New Delhi. The primary function of the Regional Offices are to monitor and evaluate the ongoing forestry projects and schemes with specific emphasis on conservation of forests and follow-up action on the implementation of conditions and safeguards laid down by the Ministry while granting clearance to development projects under FCA, 1980 and EPA, 1986.

INTEGRATED FOREST PROTECTION SCHEME

Integrated Forest Protection Scheme (IFPS) was being implemented during the 10th Five Year Plan and is being continued during 11th Plan. The Planning Commission has suggested to rename the Scheme as “Intensification of Forest Management” during 11th Five Year Plan. It is proposed to broadbase the scheme by including following two new components in addition to the existing components of IFPS i.e. Infrastructure Development and Forest Fire Control Management.

The major components of the Scheme include :

- Forest Fire Control and Management.
- Strengthening of Infrastructure.
- Survey, demarcation and working plan preparation.
- Protection and conservation of sacred groves.
- Conservation and Restoration of unique Vegetation and eco-systems.

- Control and eradication of forest invasive species.
- Preparedness for meeting challenges of bamboo flowering and improving management of bamboo forest.

While the first three components have been under implementation since the 10th plan period, the remaining four have been introduced from 2009-10.

FOREST POLICY

Non-Legally Binding International Instrument for sustainable development of all types of forests with the four global objectives has been agreed to as Global Forest Policy by all member countries of the United Nations and adopted by General Assembly. The Government of India is also committed to implement sustainable forest management and has assigned the ownership of minor forest produce to the people living in and around forests for the purpose of collection, processing, trade and marketing through a national level legislation named as the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest rights) Act, 2006. This will help the forest dependent people to improve their economy, and will also enhance contribution of forests towards achievement of Millennium Development Goals (MDGs).

WILDLIFE CONSERVATION

The Indian Constitution entails the subject of forest and wildlife in the Concurrent list. The Federal Ministry acts as a guiding torch dealing with policies and planning on wildlife conservation while the State Forest Departments have been vested with the responsibility of implementation of national policies and plans. To combat wildlife related crimes, a Wildlife Crime Control Bureau under the Director, Wildlife Preservation has been constituted with five Regional Offices, viz., Delhi, Mumbai, Kolkata, Chennai and Jabalpur and three Sub-regional offices at Amritsar, Guwahati and Cochin. The Ministry provides necessary technical and financial support to the State Governments for wildlife conservation under various Centrally Sponsored Schemes (CSS) which include schemes for Development of National Parks and Sanctuaries, Project Elephant, Central Sector Scheme on Strengthening of Wildlife Division, and through Grants in Aid to the Central Zoo Authority and the National Tiger Conservation Authority (NTCA).

- The Protected Area network in India includes 99 National Parks and 515 Wildlife Sanctuaries, 43 Conservation Reserves and four Community Reserves. During December 2008, the erstwhile scheme 'Development of National Parks and Sanctuaries' has been modified as 'Integrated Development Habitats.' The total outlay for this scheme is ₹ 74 crore for the 11th plan.
- The Ministry had undertaken an independent evaluation of National Parks and Wildlife Sanctuaries in the country by a group of experts to ascertain how effectively the Protected Area (PA) network in the country performs in realizing the conservation objectives as well as the social objectives for effective wildlife management. Five regional committees of experts have also been constituted for the purpose. During the first phase, 30 Protected Areas were evaluated.
- Government of India has formulated an Action Plan for Vulture Conservation which is being implemented in collaboration of States/UTs to stem the decline and put the vulture population on growth path. The Government has supported

breeding centres at Pinjore in Haryana, Buxa in West Bengal and Rani Forest in Assam. Captive breeding centres in four zoos at Bhopal, Bhubaneswar, Junagarh and Hyderabad have also been set up through CZA. The Plans at these centres are at various stages of implementation.

- The Wildlife Crime Control Bureau has been constituted on 6 June 2007 through amendment of the Wildlife (Protection) Act, 1972 in 2006. The powers and function of the bureau have been defined under Section 38z of the Act.
- With the creation of the bureau, the four regional offices have been integrated with it along with their sub regional offices. A new regional office at Jabalpur has also been constituted. As a central agency, it is assisting the state agencies through intelligence inputs, analysis of information and providing expertise.
- The Ministry is the nodal agency for the various international conventions related to climate change, bio-diversity, wildlife conservation etc. India is a party to five major international conventions related to wildlife conservation, viz. Convention of International Trade in Endangered Species of wild fauna and flora (CITES), International Union for Conservation of Nature and Natural Resources (IUCN), International Whaling Commission (IWC), United Nations Educational, Scientific & Cultural Organization-World Heritage Committee (UNESCO-WHC) and the Convention on Migratory Species (CMS).
- During 2009-10, India was actually involved in the following international conventions viz. (i) Convention on International Trade in Endangered Species of Fauna and Flora, (ii) World Heritage convention, (iii) International Whaling Commission, and (iv) ICUN: World Conservation Union.
- India has joined hands with United States of America and other partners against the illegal wildlife crime/trafficking by joining Coalition Against Wildlife Trafficking (CWAT).
- Established in 1982, Wildlife Institute of India (WII) is an autonomous institution under the administrative control of the Ministry and has been recognized as the country's premier training and research institution in the field of wildlife conservation. The Institute was awarded the Rajiv Gandhi Wildlife Conservation Award in 1999 in the institutional category by the MoEF for its outstanding performance and activities.

CENTRAL ZOO AUTHORITY

Zoos in India are regulated as per the provisions of the Wild Life (Protection) Act, 1972 and are guided by the National Zoo Policy, 1998. The Central Zoo Authority (CZA), established by the Government of India in the year 1992 through an amendment in the Wild Life (Protection) Act, 1972 oversees the functioning of Zoos and enforces minimum standards and norms for upkeep and health care of animals in Indian Zoos and restrain mushrooming of unplanned and illconceived Zoos that were cropping up as adjuncts to public parks, industrial complexes and waysides. The Central Zoo Authority has been reconstituted sixth time in the month of September 2007 with Minister of State, Environment and Forests (Forests & Wildlife) as the Chairman. The Central Zoo Authority is a 12 member body headed by the Chairman. The Member Secretary is the Chief Executive Officer of the Authority. There is a 15 member contingent in the office of the Central Zoo Authority for discharge of its mandated functions.

Activities undertaken in 2009 :

- Recognition of Zoo Rules 2009 was finalised and notified in supersession of the Recognition of Zoo Rules 1992.
- Five large, five small and 30 mini zoos and Rescue centres have been evaluated as Zoos.
- Five large, two small and 23 mini Zoos and Rescue centres have been given conditional recognition.
- The Central Zoo Authority is coordinating planned conservation breeding programme for endangered species in Indian Zoos. So far, 70 species have been identified under the programme.
- The Central Zoo Authority has provided funds to various zoos to organise workshops and training programmes for zoo personnel.
- An amount of ₹ 729.80 lakh has been released to different zoos and related organization for creation of better animals housing, veterinary facilities, infrastructure development, research and training purposes up to December 2009.

PROJECT TIGER (NATIONAL TIGER CONSERVATION AUTHORITY)

The Centrally Sponsored Scheme 'Project Tiger' was launched in April 1973 with the objective "to ensure maintenance of the viable population of Tigers in India for scientific, economic, aesthetic, cultural and ecological values, and to preserve for all times, areas of biological importance as a national heritage for the benefit, education and enjoyment of the people."

- Amendment of the Wild Life (protection) Act, 1972 for providing enabling provisions for constitution of the National Tiger Conservation Authority and the Tiger and other Endangered Species Crime Control Bureau. The punishment in cases of offence within a tiger reserve has been enhanced. The Act also provides for forfeiture of any equipment, vehicle or weapon that has been used for committing any wild life offence.
- 100 per cent Central Assistance was provided to 38 Tiger Reserves as an additionality for deployment of Tiger Protection Force, comprising ex-army personnel and local workforce.
- Constitution of the National Tiger Conservation Authority with effect from 4 September 2006, for strengthening tiger conservation by, *inter alia*, ensuring normative standards in tiger reserve management, preparation of reserve specific tiger conservation plan, laying down annual/audit report before Parliament, constituting State Level Steering Committees under the Chairmanship of Chief Ministers and establishment of Tiger Conservation Foundation.
- Constitution of a multidisciplinary Tiger and Other Endangered Species Crime Control Bureau (Wildlife Crime Control Bureau) with effect from 6 June 2007 comprising officers from Police, Forest, Customs and other enforcement agencies to effectively control illegal trade in wildlife.
- Approval accorded for declaring eight new Tiger Reserves. Notification for Sahayadri Tiger Reserve in Maharashtra has been issued in January 2010.
- The revised Project Tiger guidelines have been issued to States for strengthening tiger conservation, which apart from ongoing activities, *inter alia*, include

funding support to States for enhanced village relocation/rehabilitation package for people living in core or critical tiger habitats (from ₹1 lakh/family to ₹10 lakh/family, rehabilitation/resettlement of communities involved in traditional hunting and mainstreaming livelihood and wildlife concerns in forests outside tiger reserves and fostering corridor conservation through restorative strategy to arrest habitat fragmentation.

- A scientific methodology for estimating tiger (including co-predators, prey animals and assessment of habitat status) has been evolved and mainstreamed. According to the refined methodology, an estimated land of 93697 km² has been observed as tiger habitat. The estimated number of tigers is 1411 (with an upper limit 1657 and lower limit 1165 as per the refined scientific methodology). The findings of this estimation/assessment are bench marks for future tiger conservation strategy. An area of 29284.76 sq km has been notified by 15 Tiger States as core or critical tiger habitat.
- India has a Memorandum of Understanding with Nepal on controlling transboundary illegal trade in wildlife and conservation, apart from a protocol on tiger conservation with China.
- A Global Tiger Forum of Tiger Range Countries has been created for addressing international issues related to tiger conservation.

PROJECT ELEPHANT

Project Elephant was launched as a centrally sponsored scheme in February 1992 to assist States having free ranging populations of wild elephants to ensure long term survival of identified viable populations of elephants in their natural habitats. The Project is being implemented in 13 States, viz. Andhra Pradesh, Arunachal Pradesh, Assam, Jharkhand, Karnataka, Kerala, Meghalaya, Nagaland, Orissa, Tamil Nadu, Uttarakhand, Uttar Pradesh and West Bengal. States are being given financial as well as technical assistance in achieving the objectives of the Project. Help is also provided to other States with small populations of elephants for the purpose of census, training of field staff and mitigation of human elephant conflict.

- All India estimation of elephant is done every five years. The trend of last four estimations indicates increase in population of wild elephants in the country.
- The total number of Elephant Reserves in the country has become 27 up to 2009.

ANIMAL WELFARE

The Animal Welfare Division is entrusted with the implementation of the provisions of the Prevention of Cruelty to Animals Act, 1960. Plan Schemes are in operation for implementation of the statutory obligations under this Act. Two statutory organizations, viz. Animal Welfare Board of India (AWBI) and Committee for the Purpose of Supervision and Control of Experiments on Animals (CPCSEA) have also been set up under this Act. The mandate of the Animal Welfare Division is to prevent the infliction of unnecessary pain or suffering on animals. To accomplish this mission a three pronged approach, viz. regulatory, developmental and educational has been adopted.

There are various schemes for animal welfare such as :

- (i) Scheme for animal birth control and immunization of stray dogs;
- (ii) Scheme for provision of shelter houses for animals;

- (iii) Schemes for relief to animals during natural calamities and unforeseen circumstances; and
- (iv) Schemes for provision of Ambulance services to animals in distress.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

The rapid industrial development in the country has increased manifold the chances of adversely affecting the environment unless timely, adequate, corrective and protective mitigative measures are taken to minimize or neutralize those adverse impacts on environment. Environment Impact Assessment Notification, 2006 is a tool to regulate rapid industrial development of the country for minimizing the adverse impact on environment and reversing the trends which may lead to climate change in the long run. In this Notification, projects were categorized into category 'A' and 'B' depending on their threshold capacity and likely pollution potential and were appraised for prior environmental clearance at the Central and the State level respectively. For appraisal of category 'B' projects and activities, state level environment impact assessment authorities and state expert appraisal committees have been constituted.

To simplify the procedure for obtaining the environmental clearance without compromising or diluting the regulatory framework, the EIA notification has been amended in December 2009. The amendment provides for exemption of biomass based power plants up to 15 mw, power plants based on non hazardous municipal solid wastes and power plants based on waste heat recovery boilers without using auxiliary fuel.

Twenty-three State/UT level environment impact assessment authorities have been constituted so far for appraisal of all 'B' category projects and activities. These authorities have accorded environmental clearance to 759 projects in the year 2009 (up to December, 2009).

The environmental appraisal of development projects is undertaken based on the EIA/EMP reports prepared by the project consultations. The good quality EIA reports are pre-requisite for improved decision making. Therefore, all the consultants/public sector undertakings were required to get themselves registered under the scheme of accreditation and registration of the National Accreditation Board of Education and Training and the Quality Council of India by 30 June 2010.

ABATEMENT OF POLLUTION

CONTROL OF POLLUTION

The concern for environmental quality has become the utmost issue in the present scenario of increasing urbanization, industrial and vehicular pollution as well as pollution of water courses due to discharge of effluents without conforming to the environmental norms and standards. Realizing this trend of pollution in various environmental media like air, water, soil etc., the Ministry adopted a policy for abatement of pollution, which provides multi-pronged strategies in the form of regulations, legislations, agreements, fiscal incentives and other measures to prevent and abate pollution. To give effect to various measures and policies for pollution control, various steps have been initiated which include stringent regulations, development of environmental standards, control of vehicular pollution, spatial environmental planning etc. The Government adopted the National Environment Policy 2006 which seeks to extend the coverage and fill in gaps that still exist.

- The monitored ambient air quality data indicates that the levels of Sulphur Dioxide and Oxides of Nitrogen are within the notified ambient air quality norms. However, on certain occasions, the levels of fine particulate matter (PM 10) exceed the prescribed norms in many cities including Delhi.
- During the 11th Plan period, financial outlay is of ₹ 45 crore and the financial allocation for 2009-10 is ₹ 5 crore under the scheme, assistance for Abatement of Pollution. Under this scheme grants are being provided to various State Pollution Control Boards/UT Pollution Control Committees, Environment Departments, Central/State Research Institutions and other government agencies/organizations with the aim of strengthening their technical capabilities to achieve the objectives of the Policy Statement, salary support to North-Eastern Pollution Control Boards and Committees as well as for undertaking projects for abatement of pollution.
- To evaluate contribution from various sources to air quality, Source Apportionment Study (SAS) has been completed for six cities namely, Delhi, Bengaluru, Chennai, Mumbai, Pune and Kanpur involving the Institutions like National Environmental Engineering Research Institute (NEERI), Nagpur, Energy and Resources Institute (TERI), New Delhi, Indian Institute of Technology (IIT), Chennai, Automotive Research Association of India (ARAI), Pune and Indian Institute of Technology (IIT), Kanpur. For appraisal and guidance during the Survey and study, a National level Steering Committee under the chairmanship of Secretary (E&F) has been constituted. In order to provide technical assistance and guidance during data collection, use of appropriate model etc., a Technical Committee has also been constituted under the chairmanship of Chairman, Central Pollution Control Board (CPCB) and members drawn from various technical institutions and organizations.
- During the year 2008-09 environmental standards in respect of following categories of industry have been evolved and are being finalized for notification:
 - Petrochemical plants;
 - Incinerator plants in organic chemicals manufacturing units;
 - Dye & Dye intermediate units;
 - Rubber products;
 - Iron Ore Mines and Copper Zinc smelters.
- Noise levels have been a matter of concern due to various activities, religious functions, festivals, marriages, processions and related celebrations. Supreme Court in its judgements of 25 July 2005 and October 2005 has given detailed directions upgrading implementation of laws for controlling noise. In pursuance of these judgements, draft rules to amend the existing Noise Pollution (Regulation and Control) Rules, 2000 were published in March 2009. The final amendment to the Noise Rules, 2000 have been published on 11 January 2010. The salient features are to make the night peaceful, public place has been defined and the occupant of a public place would restrict the volume of public address system, noise emitting construction equipment have been specifically brought under the ambit of Noise Rules, 2000.
- A comprehensive Environmental Pollution Index system of environmental assessment of the 80 industrial clusters evolved by the Central Pollution Control Board in collaboration with the IIT has been adopted by the Ministry. It may be

used as a tool in synthesizing the available information on environmental status of areas by using quantitative criteria and its ability to reduce complex information into smaller and more easily retained information. The present CEPI system is intended to be used as an early warning tool for categorizing industrial clusters/areas in terms of severity of the overall pollution levels.

- In pursuance of the Supreme Court's Order projects for environmental protection of World Heritage Site of Taj Mahal were initiated and funded by the Ministry. The Planning Commission approved ₹ 600 crore on a 50:50 cost sharing basis with the state government to implement various schemes in the Taj Trapezium Zone for environmental protection of the Taj Mahal. In the phase I, during 11th Plan, 10 projects were approved by the Government to be implemented by the state government of UP.
- The Eco-cities project focuses on protection of environmental resources like water bodies, forest etc., improving infrastructure and sanitary conditions in the towns and creating aesthetic environs. The programme was initiated to bring in visible environmental improvement in the small and medium towns. Six towns, viz. Vrindavan, Tirupati, Puri, Ujjain, Kottayam and Thanjavoor were taken under first phase of Eco-cities programme.
- The fly ash utilization notification was issued in September 1999 to regulate the disposal of fly ash and ensure its proper utilization. Restriction was imposed to the extent that all brick kilns within the radius of 50 kms from coal/lignite based thermal power plants should use 25 per cent fly ash while making the bricks. A second notification making amendments was issued in August 2003 increasing the radius from the thermal power plants to 100 kms.
- Central Pollution Control Board is responsible for planning and executing comprehensive nationwide programmes for the prevention and control of water and air pollution, for advising the central government on matters concerning prevention and control of water and air pollution and for coordinating activities of State Pollution Control Boards/Pollution Control Committees besides providing technical assistance and guidance to them.
- Common Biomedical Waste Treatment Facilities (CBWTF) have been set up in various cities for treatment of Bio-medical waste generated in various hospitals and nursing homes. In North Zone 28 CBWTF have been established. Out of these, 8 common facilities were inspected. In central zone, 18 CBWTFs have been established. Out of these, 15 common facilities were inspected. In South Zone 10 CBWTFs facilities were inspected. In West Zone 31 CBWTF have been established and out of these, nine common facilities were inspected.
- Nationwide water quality is monitored regularly under National Water Quality Monitoring Programme (NWMP) through a network of water quality monitoring comprising 1245 stations in 27 States and six Union Territories being operated by CPCB in collaboration with concerned SPCBs/PCCs. The monitoring network covers 695 monitoring stations on rivers, 86 monitoring stations on lakes, 9 monitoring stations on tanks, 26 monitoring stations on ponds, 12 monitoring stations on creeks and 19 stations on canals. Water quality of 293 rivers in major, medium and minor basins is observed in the country.
- Nationwide air quality is monitored regularly under National Air Quality Monitoring Programme (NAMP) through a network of air quality monitoring comprising 365 operating stations at 141 cities/towns in 26 States and five

Union Territories of the country. Under NAMP, four air pollutants, viz., Sulphur Dioxide (SO₂), Oxides of Nitrogen as NO₂, Suspended Particulate Matter (SPM) and Respirable Suspended Particulate Matter (RSPM or PM₁₀), have been identified for regular monitoring at all the locations. The monitoring of meteorological parameters such as wind speed and direction, relative humidity and temperature has also been integrated with the monitoring of air quality.

- Analysis of National mean concentration with 90th percentile and 10th percentile for SO₂, NO₂, RSPM and SPM has revealed that National mean SO₂ concentration has decreased over the years indicating that there has been a decline in SO₂ levels. National mean NO₂ and RSPM concentration has remained stable over the years despite increase in emission sources such as vehicles. The reason for this may be various intervention measures that have taken place such as improvement in vehicle technology and other vehicular pollution control measures like alternate fuel etc. National mean SPM concentration has been fluctuating over the years.

MANAGEMENT OF HAZARDOUS SUBSTANCES

The major functions of the Hazardous Substances Management Division (HSMD) include regulatory activities for framing necessary Rules relating to environmentally sound management of hazardous wastes/chemicals, plastics and municipal solid wastes under the Environment (Protection) Act, 1986 and promotional activities by providing necessary financial support to the concerned agencies for their implementation. The Division is also responsible for planning, overseeing and implementation of the policies and programmes on the management of chemical emergencies and hazardous substances including hazardous wastes. The mandate of this Division is to promote safety in the management and use of hazardous substances including hazardous chemicals and hazardous wastes with an objective to prevent and mitigate damage to health and environment due to hazardous chemicals and wastes.

To regulate management of hazardous waste generated within the country as well as export/import of such wastes, new rules titled Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 have been notified superseding the earlier regulation. Recycling of e-waste and the requirement of registration for e-waste recyclers have been included under these rules. A National Hazardous Waste Inventorisation Project has been sponsored for tracking the waste from its generation to its disposal point. In 2009-10, financial assistance of ₹ 302 crore has been provided to the states of Maharashtra and Uttar Pradesh for establishment of TSDFs.

CONSERVATION OF WATER BODIES

NATIONAL RIVER CONSERVATION DIRECTORATE (NRC)

The National River Conservation Directorate, functioning under the Ministry is engaged in implementing the River and Lake Action Plans under the National Lake Conservation Plan (NLCP) and National River Conservation Plan (NRCP) by providing assistance to the State Governments.

- The objective of NRCP is to improve the water quality of the rivers, which are the major water sources in the country, through the implementation of pollution abatement works, to the level of designated best use. So far a total of 35 rivers have been covered under the programme.

- Major works being taken up under the NRCPC include interception and diversion works to capture the raw sewage flowing into the river through open drains and divert them for treatment, setting up sewage treatment plants for treating the diverted sewage, construction of low cost sanitation toilets, construction of electric crematoria and improved wood crematoria to conserve the use of wood, river front development, afforestation on the river banks, public participation and awareness etc.
- The Central Government has given Ganga the status of a 'National River' and has constituted a 'National Ganga River Basin Authority on 20 February 2009 as an empowered planning, financing, monitoring and coordinating authority for the conservation of Ganga River with a holistic approach under the Environment (Protection) Act, 1986. The Authority will take measures for effective abatement of pollution and conservation of the river Ganga in keeping with sustainable development needs.
- The present cost of NRCPC projects is ₹ 4691.54 crore covering 167 towns along polluted stretches of 38 rivers spread over 20 states.
- The Ganga Action Plan initiated in 1985 is the first river action plan. Since GAP phase I did not cover the pollution load of Ganga fully, GAP phase II was taken up which included Ganga and its four tributaries, i.e. Damodar, Gomti, Manahanda and Yamuna. Works under Ganga Action Plan phase II covers 60 towns along the main stream of river Ganga at a sanctioned cost of ₹ 635.66 crore.
- The water quality of river Ganga is being monitored since 1986 from Rishikesh in Uttarakhand to Uluberia in West Bengal. As a result of the projects completed under GAP, the water quality of river Ganga has shown a general improvement despite tremendous population growth along the river banks. Water quality monitoring carried out by reputed institutions such as IIT, Kanpur, Bharat Heavy Electrical Limited, Patna University, etc. indicates that water quality of the river Ganga conforms to the prescribed standards in terms of key indicators namely, Bio-chemical Oxygen Demand and Dissolved Oxygen at most of the locations, except in the stretch between Kannauj and Varanasi in Uttar Pradesh.
- The water quality monitoring has also been undertaken for rivers namely Yamuna, Western Yamuna Canal, Gomti, Hindon, Satluj, Cauvery, Tungabhadra and waterways of Chennai. At present, the number of monitoring stations are 158 in 10 rivers which include 27 stations set up in the upper reaches of Ganga and 32 stations of Chennai waterways.
- National Lake Conservation Plan is a centrally sponsored scheme for conservation restoration of polluted and degraded lakes. This was initiated with the approval of conservation and management plans of 3 lakes namely Powai, Ooty and Kodaikanal in June 2001 at a cost of ₹ 14.90 crore. So far under this Scheme, a total of 40 projects for conservation of 58 lakes have been sanctioned in 14 states at a sanctioned cost of ₹ 883.94 crore. Conservation of works for 18 lakes have been completed so far whereas in some cases the project implementation is in last stages of completion.

NATIONAL WETLANDS CONSERVATION PROGRAMME

The scheme on conservation and management of Wetlands was initiated in 1987 to lay down policy guidelines for implementing programmes of conservation and

management of wetlands in the country, to undertake priority wetlands for intensive conservation measures to monitor implementation of the programme of conservation, management and research, and to prepare an inventory of Indian wetlands.

- Over the years, based on the recommendations of National Wetlands Committee, 115 wetlands have been identified for conservation under the programme.
- During the year 2009-10 Management Action Plans of 27 Wetlands have been approved and financial assistance of ₹ 11.22 crore has been released to the concerned state governments up to 24 February 2010.

REGENERATION AND ECO-DEVELOPMENT

NATIONAL AFFORESTATION AND ECO-DEVELOPMENT BOARD

In order to promote afforestation, tree planting, ecological restoration and eco-development activities in the country, the National Afforestation and Eco-development Board (NAEB) was set up in August 1992. Special attention is also being given by the NAEB for the regeneration of degraded forest areas and lands adjoining forest areas, national parks, sanctuaries and other protected areas as well as the ecologically fragile areas like the Western Himalayas, Aravallis, Western Ghats etc.

- 800 FDAs have been operationalised so far, since the launch of the FDA mechanism in 2000-01, at a cost of ₹ 3,131.48 crore to treat a total area of 16.90 lakh ha (as on 22 February 2010). Bamboo Plantation, Medicinal Plants and Biofuel have been given adequate focus under NAP during the Tenth Plan period. Rehabilitation of shifting cultivation lands has been given specific focus under the programme, and so far 35 Jhum projects have been sanctioned in NE States and in Orissa. ₹ 311.90 crore was released to FDA's during the year 2009-10 for implementation of National Afforestation Programme (NAP) (as on 22 February 2010).
- A number of initiatives have been taken to expedite the implementation of the Scheme as well as to improve the qualitative aspects of implementation. These include: stepping up monitoring and evaluation of the FDA projects by activation of State level coordination committees for NAP; increased number of training programmes for the frontline staff and JFM committee members; initiating seven pilot projects for establishing forest based micro enterprises which will provide experiential learning for scaling up such activity with a view to consolidate the JFM during the eleventh plan.
- The Scheme of Eco Development Force is based on twin objectives of ecological regeneration in different areas, and promotion of meaningful employment to ex-servicemen. Under the Scheme, the establishment and operational expenditure on the Eco Task Force Battalions raised by the Ministry of Defence is reimbursed by the Ministry of Environment and Forests while the inputs like sapling, fencing etc. as also the professional and managerial guidance is provided by the State Forest Departments. Six EIF battalions are being supported under the Scheme in the states of Uttarakhand, Rajasthan, Jammu and Kashmir and Assam.
- Budget estimate for the scheme during 2009-10 is ₹ 10.50 crore out of which ₹ 9.64 crore has been reimbursed to Ministry of Defence up to 20 February 2010.

RESEARCH

ENVIRONMENTAL RESEARCH

Research in multi-disciplinary aspects for environmental and ecosystems protection, conservation and management at various universities, institutions of higher learning, national research institutes and non-governmental organizations in identified thrust areas under its Research & Development (R&D) programme continued to be funded by the Ministry. It is a Central Plan Scheme for supporting research in environment since 1985. The objectives of the scheme are to generate information required to develop strategies, technologies and methodologies for better environmental management. It also aims at attempting solutions to the practical problems of resource management, conservation of natural resources and eco-regeneration of degraded areas. Further, the scheme also aims at strengthening infrastructure to facilitate research and scientific manpower development.

- The Ministry supports research through its established research programmes. These include Environment Research Programme (ERP), Ecosystem Research Scheme (ERS), Eastern and Western Ghats Research Programme (E & WGRP) and Economic and Social issues. Thematic Expert Groups for these research programmes have been constituted to screen evaluation and recommend new projects and also to monitor/review the ongoing projects. The Ministry also promotes research in Environment through the awards of National Fellowships to the outstanding scientists. These awards are Pitambar Pant National Environment Fellowship Award in environment science and Dr. B.P. Pal National Environment Fellowship Award for biodiversity.

NATIONAL NATURAL RESOURCE MANAGEMENT SYSTEM (NNRMS)

- The Scheme of National Natural Resource Management System (NNRMS) involves utilization of remote sensing technology for accurate inventory of resources such as land, water, forests, minerals, oceans, etc. and to utilize this information for monitoring changes in ecological system. A Standing Committee of Bio-resources and Environment (SC-B) has been constituted by the Planning Commission under the Chairmanship of Secretary (E&F). This Standing Committee on Bio-resources and Environment (SC-B) constituted by the Planning Commission advises on the methods of using the remote sensing technology for optional use and management of natural resources in the country. In order to streamline the projects, the SC-B has constituted a technical and financial Sub-Committee to scrutinize/review all the proposals submitted for funding under NNRMS SC-B from the technical and financial angle. One of those proposals recommended by the Technical and Financial Sub-Committee was taken up by NNRMS SC-B for financial assistance. The Committee also oversees and monitors the progress of sanctioned projects.
- In 2009, 8 new projects have been initiated/sanctioned based on the recommendations of the Standing Committee of NNRMS SC-B. The committee also reviewed the recently completed two mega projects and suggested that the Final Technical Report of the project should be submitted and placed before the technical and financial sub-committee of NNRMS SC-B for its perusal and acceptance.
- Based on the results obtained and experience gained during the implementation of the project on "Monitoring of Snow and Glaciers in Himalayas" the Ministry

decided to continue the work on snow and glacier monitoring in the Himalaya and suggested that Space Applications Centre take up this work in collaboration with all the organizations of the country working in this field. Accordingly, phase-II of the project has been prepared by the SAC. Under this project the monitoring of seasonal snow cover for the entire Himalaya and monitoring the retreat/advance of the glaciers in the representative basins will be taken up.

G.B. Pant Institute of Himalayan Environment and Development, Kosi-Katarmal, Almora

G.B. Pant Institute of Himalayan Environment and Development (GBPIHED) was established in August 1988 by the Ministry as an autonomous Institute with a mandate of achieving sustainable development and environmental conservation in the Indian Himalayan Region (IHR). The Institute executes the mandate through its Headquarter located at Kosi-Katarmal, Almora (Uttarakhand), and its four regional Units located at Kullu (Himachal Pradesh), Srinagar (Uttarakhand), Pangthang (Sikkim) and Itanagar (Arunachal Pradesh). The Institute designs and implements R&D activities on priority environmental problems; develops and demonstrates best practices and delivers technology packages for improved livelihood of the people of the IHR.

- The identified thematic categories for Institute R & D activities include: (i) Watershed Processes and Management; (ii) Biodiversity Conservation and Management, (iii) Environmental Assessment and Management, (iv) Socio-economic Development, (v) Biotechnological Application and (vi) Knowledge Products and Capacity Building.
- All activities are need based, target oriented and time bound.
- Research demonstration and dissemination are underlying elements of all project activities geared towards development of environment friendly technology packages.

RESEARCH ON WETLANDS, MANGROVES AND CORAL REEFS

- Under National Wetland Conservation Programme in 2009, Management Action Plans of 27 wetlands have been approved.
- The National Committee of Mangroves and Coral Reefs monitors the implementation of the approved Management Action Plan for the coastal states and UTs. The Committee reviewed the Management Action Plans of Gujarat, Tamil Nadu, West Bengal, Orissa, Karnataka and Goa.

FORESTRY RESEARCH

- Indian Council of Forestry Research and Education (ICFRE), an apex body in the national forestry research system, has been undertaking the holistic promotion of forestry research through need based planning, promoting, conducting and coordinating research, education and extension covering all aspects of forestry.
- The Council promotes the solution based forestry research in tune with the emerging issues in the sector, including global concerns such as climate change, conservation of biological diversity, combating desertification and sustainable management and development resources.
- Topical research by the Council enhances public confidence in the ability of

forest managers and researchers to successfully handle challenges related to natural resource management.

- ICFRE has eight regional research institutes and four research centres located in different bio-geographical regions of the country to cater to the forestry research need of the nation.
- The council has eight research institutes and four advanced research centres. The research institutes are : Forest Research Institute, Dehradun; Institute of Forest Genetics and Tree Breeding, Coimbatore; Institute of Wood Science and Technology, Bengaluru; Tropical Forest Research Institute, Jabalpur; Rain Forest Research Institute, Jorhat; Arid Forest Research Institute, Jodhpur; Himalayan Forest Research Institute, Shimla; and Institute of Forest Productivity, Ranchi.
- The Advanced Research Centres are: Centre for Social Forestry and Eco-Rehabilitation, Allahabad; Centre for Forestry Research and Human Resource Development, Chhindwara; Forest Research Centre, Hyderabad; and Advanced Research Centre for Bamboo and Rattans, Aizwal.

WILDLIFE RESEARCH

Increasing human induced changes are posing new threats to conservation of wilderness resources today. The forests harbouring wild animals are deteriorating in terms of quality and quantity (fragmentation) thereby threatening survival of species particularly mega/endangered species like elephants, tigers, rhinos, etc. As habitats shrink and populations become increasingly isolated, factors like poaching, disease, population structure (sex-ratio) and stochastic events like droughts, fire and floods which once were part of natural processes causing manageable oscillations are now becoming limiting and critical factors. The situation is throwing enormous challenges to managers and policy makers alike particularly in managing the wildlife of the country.

- Wildlife Institute of India is a premier training and research institute in the field of wildlife and protected area management in South Asia.
- Wildlife Research at the Institute covers ecological, biological, socio-economic and managerial aspects of wildlife conservation.
- The research project generates valuable academic data, help evolve study techniques relevant to the Indian ground conditions and also create a group of trained and field biologists, socio-economists and wildlife managers.
- During the year 2009, 32 research projects were ongoing in the Institute.

EDUCATION AND AWARENESS

ENVIRONMENTAL EDUCATION, AWARENESS AND TRAINING

The environmental damage already inflicted due to alarming on-going population explosion, rapid movement towards urbanisation and industrialisation, increasing needs of energy and fast scientific and technological advancement cannot be reversed unless there is collective thinking, will and effort. These call for public awareness and participation for bringing about an attitudinal change and finally restricting further damage to the environment. Effective implementation of environmental management and conservation programmes depends on education, awareness raising and training in the relevant areas. Without an understanding of how to conserve

natural resources and the compelling need to do so, few people would be motivated to participate actively in programmes on environmental conservation. Environment education and awareness thus assume critical importance. The 'Environmental Education, Awareness and Training' is a flagship scheme of the Ministry for enhancing the understanding of people at all levels about the relationship between human beings and the environment and to develop capabilities/skills to improve and protect the environment. The scheme was launched as 1983-84.

- The major programmes undertaken under the scheme include :
 - (i) National Green Corps Programme;
 - (ii) National Environment Awareness Campaign;
 - (iii) Mass awareness;
 - (iv) Observance of Earth Day; and
 - (v) Global Learning and observation to benefit the environment.

NATIONAL MUSEUM OF NATURAL HISTORY

The National Museum of Natural History (NMNH), a subordinate organization of the Ministry, was opened to public in 1978 to create public awareness in preservation and conservation of environment and nature. Over the years, the Museum has extended its activities in different regions of the country and set up three Regional Museums—one each at Mysore (Karnataka), Bhopal (Madhya Pradesh) and Bhubaneswar (Orissa). These museums have been established to depict flora, fauna, forests, wildlife and other environmental aspects of the respective regions.

- Rajiv Gandhi Regional Museum of Natural History is being established at Sawai Madhopur, Rajasthan.
- The Ministry has approved the setting up of the 5th Regional Museum of Natural History near Gangtok to extend the Museum's activities to the North-Eastern Region which is a hot spot of biodiversity.

FORESTRY EDUCATION, TRAINING AND EXTENSION

The present system of forestry education and training is tailored to produce skilled forest managers so as to manage, protect and conserve the forests in consonance with National Forest Policy, 1988, National Forestry Action Programme, 1999 etc. The activities related to forestry education, training and extension are performed by the different institutes of the Ministry like Indira Gandhi National Forest Academy (IGNFA), Dehradun; Directorate of Forest Education (DFE), Dehradun; Indian Council of Forestry Research and Education (ICFRE), Dehradun; Forest Survey of India (FSI), Dehradun; Indian Institute of Forest Management (IIFM), Bhopal; Indian Plywood Industries Research and Training Institute (IPIRTI), Bengaluru, etc.

WILDLIFE EDUCATION AND TRAINING

Wildlife education and training is primarily looked after by the Wildlife Institute of India, an autonomous institute of the Ministry for imparting training to government and non-government personnel to carry out research and training activities and advice on matters of conservation and management of wildlife resources.

- The Institute runs three regular courses viz., 2-year M.Sc. degree programme in

Wildlife Sciences, 9-month Postgraduate Diploma in Wildlife Management, and 3-month Certificate Course in Wildlife Management.

CENTRES OF EXCELLENCE

The Ministry started the scheme in 1983 to strengthen awareness, research and training in priority areas of Environmental science and management.

Ten Centres of Excellence set up so far by the Ministry with a view to strengthening awareness, research and training in priority areas of environmental science and management are as under:

- Centre for Environment Education (CEE), Ahmedabad
- CPR Environmental Education Centre (CPREEC), Chennai
- Centre for Ecological Sciences (CES), Bengaluru
- Centre of Mining Environment (CME), Dhanbad
- Salim Ali Centre for Ornithology and Natural History (SACON), Coimbatore
- Centre for Environment Management of Degraded Ecosystem (CEMDE), Delhi
- Centre of Excellence in Environmental Economics at Madras School of Economics, Chennai.
- Foundation for Revitalization of Local Health Traditions (FRLHT), Bengaluru.
- The Tropical Botanic Garden and Research Institute (TBGRI), Thiruvananthapuram.
- Centre for Animals and Environment CARTMAN, Bengaluru.
- Centre for Environment Education, Ahmedabad established in 1984 as a centre of excellence, is a national institution engaged in developing programmes and material to increase awareness and concern, leading to action regarding environment and sustainable development. In 2009, the centre launched a campaign 'Pick Right' and 'Kaun Banega Bharat ka Paryavaran Ambassador'. The Pick Right campaign is aimed at spreading awareness about climate change, its causes and effects. The Paryavaran Ambassador campaign will help choose a person to be a spokesperson on environmental issues, who can encourage people to make right lifestyle choices.
- CEE has been the Resource Agency (RA) in 15 states and two UTs and covers around 40,000 schools through this countrywide awareness programme initiated and funded by Ministry. National Green Corps (NGC) aims at spreading environmental awareness among school children through eco-club activities, and through children in society at large. Various activities including training of master trainers, developing and distributing educational material, observing environment days, conducting workshops and celebrating events like *Eco-Balmela* and *Mowgli Utsav* were undertaken.
- The Centre for Ecological Science (CES), Indian Institute of Science, Bengaluru carried out 30 research projects during the year under the broad themes of Biodiversity and Conservation, Behaviour and Evolution, Climate Change and its impact, and Eco-development. In addition, it offered several courses to Ph.D. students, hosted visiting scientists and students from other institutions, and conducted several workshops/training programmes for stakeholders, particularly for the Forest Department.

- CES has initiated new programmes in the field of molecular ecology. This includes a study of the molecular phylogeny and a survey of *Hanuman langur* morphotypes and genetics in Karnataka. One interesting result that has emerged from these studies is that large mammal populations in the Western Ghats show genetic differentiation across the Palghat Gap that has acted as a biogeographic barrier.
- A new shrub-frog taxon related to the anuran family Rhacophoridae was discovered from the Sharavathi River basin of central Western Ghats. The new frog possesses the characteristic features of rhacophorids (dilated digit tips with differentiated pads circumscribed by a complete groove, intercalary cartilages on digits, T-shaped terminal phalanges and granular belly, the adaptive characters for arboreal life forms), but also a suite of unique features that distinguish it from all known congeners in the Central Western Ghats region.
- Established in 1990 in Coimbatore, Salim Ali Centre for Ornithology and Natural History undertook 10 research projects in 2009 dealing with a variety of specialized topics related with species-specific studies, studies relating to eco-systems, environmental contamination etc.

FELLOWSHIPS AND AWARDS

INDIRA GANDHI PARYAVARAN PURASKAR (IGPP)

- The awardees for the Indira Gandhi Paryavaran Puraskar for the Years 2006 and 2007 were selected by the Prize Committee under the Chairmanship of the Vice-President of India. The awards were given away in the Award ceremony held on 5 June 2009 on the occasion of World Environment Day.

INDIRA PRIYADARSHINI VRIKSHA MITRA (IPVM) AWARDS

- The Awards up to the years 2006, 2007 and 2008 have been conferred on 19 November 2009.

PITAMBER PANT NATIONAL ENVIRONMENT FELLOWSHIP

- Instituted in 1978, this award is given every year to encourage and recognize excellence in any branch of research related to environmental Science. So far 27 fellowship awards have been given to various scientists throughout the country.

B.P. PAL NATIONAL ENVIRONMENT FELLOWSHIP FOR BIODIVERSITY

- Instituted in 1993, this is awarded annually to develop, deepen and strengthen the expertise on biodiversity available in the country. So far, 10 fellowship awards have been given.

MEDINI PURASKAR YOJANA

- This award is given to encourage writing of original books in Hindi on the subjects related to the environment. Four writers were honoured for the year 2008.
- Other awards include : E.K. Janaki Ammal National Award on Taxonomy; Rajiv Gandhi Conservation Award; Amrita Devi Bishnoi Wildlife Protection Award, etc.

ENVIRONMENTAL INFORMATION

ENVIRONMENTAL INFORMATION SYSTEM (ENVIS)

Environmental information plays a paramount role not only in formulating environmental management policies, but also in the decision-making process aiming at environmental protection and sustaining good quality of life for the living beings. Realizing the need of appropriate environmental information, the Ministry has set up an Environmental Information System (ENVIS) as a plan programme and as a comprehensive network in environmental information collection, collation, storage, retrieval and dissemination to varying users, which include decision-makers, researchers, academicians, policy planners, research scientists, etc. ENVIS network at present consists of a chain of 76 network partners out of which 46 are on subject-specific and 30 are on State related issues. These network partners are called ENVIS Centres and are located in the notable organizations/institutions/State/UT Government Department/Universities throughout the country. The Focal Point of ENVIS is located in the Ministry and coordinates the activities of all the ENVIS partners to make ENVIS a web-enabled comprehensive information system.

- The ENVIS network continued its information-related activities, database development, publication of requisite information packages through newsletters, abstracting services, etc. and the Query-Response-Services during the year.
- ENVIS Focal Point in the Ministry is responsible for maintenance and upgradation of the website of the Ministry (URL. <http://envfor.nic.in>) and disseminating information through the website to all concerned.
- Query - Answer Service is one of the major responsibilities of ENVIS Network. This responded a large number of queries during the year or provided substantive information as far as possible.
- The activities of all the ENVIS Network Partners were monitored and evaluated by various 'Expert Evaluation Committees' through Regional Evaluation Workshops held during the year at Lucknow, Mumbai, Kolkata, Dehradun and Hyderabad.
- The Virtual Public Network is being strengthened to assist the ENVIS Network partners to upload the updated information of source.
- Focal point publishes a newsletter 'ENVIRONEWS' with the objectives of disseminating information on important policies, programmes, legislations and other important decisions taken by the Ministry.

LEGISLATION AND INSTITUTIONAL SUPPORT

- The National Environment Policy has been widely circulated and is available on Ministry's website www.enfor.nic.in. The Ministry has written to Central Ministries/Department and State Governments/UT Administrations to ensure that the environment concerns expressed in NET 2006 are appropriately integrated and mainstreamed in the sectoral/State development plans during the 11th Plan period.
- The Ministry has decided to implement the recommendation of the Law Commission given in its 186th report and the draft proposal has been sent to Legislative Department, Ministry of Law & Justice for formulation of Bill.

- The Eco-Mark Scheme is presently under review in order to expand the coverage of products and its adoption and for popularizing the same among the consumers and manufacturers.

INTERNATIONAL CO-OPERATION AND SUSTAINABLE DEVELOPMENT

The Ministry of Environment and Forest is the nodal Ministry in the Government of India for all Multilateral Environmental Agreements. These include Vienna Convention for the Protection of the Ozone Layer; Montreal Protocol on substances that deplete the Ozone Layer; UN Conventions on Biological Diversity; UN Framework convention on Climate Change; UN Convention to Combat Desertification; Kyoto Protocol; the Basel Convention on Trans-boundary Movement of Hazardous Substances; Stockholm Convention on Persistent Organic Pollutants; Rotterdam Conventions; Ramsar Convention etc. International Co-operation & Sustainable Development Division is the nodal point within the Ministry to coordinate all international environmental cooperation and sustainable development issues. It is the nodal Division for United National Environment Programme (UNEP); UNCP; World Bank; UNIDO; UN Commission for Sustainable Development (CSD); Global Environment Facility (GEF) and regional bodies like Economic & Social Commission for Asia & Pacific ((ESCAP); South Asian Association for Regional Cooperation (SAARC); South Asia Cooperative Environment Programme (SACEP); ADB; and European Union (EU). The Division also handles bilateral country to country co-operation in the areas of environment protection and sustainable development.

- The 17th session of the Commission on Sustainable Development (CSD) was held from 4-15 May 2009 in New York, which considered the thematic areas of agriculture, rural development, land drought, desertification and Africa.
- The 11th Special Session of UNEP's Council was held on 24-26 February, 2010 in Indonesia. The session focused on issues like international environment governance, green economy, biodiversity and eco-system services, international law, etc.
- The 9th Delhi Sustainable Development Summit organized by TERI from 5-7 February 2009. This time, Toward Copenhagen: An Equitable and Ethical Approach has been taken up as the theme of the event.
- Secretary, Ministry of Environment & Forests is the South Asia Cooperative Environment Programme (SACEP) Focal Point for India. The SACEP holds its Governing Council (GC) meetings, which concentrate on current regional issues as well as global concerns. The 11th Governing council of SACEP was held on 20-22 May 2008 at Jaipur. The meeting deliberated upon organisational institutional and programmatic matters relating to environmental cooperation in South Asia Region.
- One of the important achievements during 2007-08 is the establishment of South Asian Association for Regional cooperation (SAARC) Forestry Centre in Bhutan. India is the current Chair of SAARC and is taking a lead in operationalising the declarations of various SAARC forums and proposing regional cooperation projects in capacity building and technical support.

CLIMATE CHANGE

Climate Change is one of the most important global environmental problems. The Fourth Assessment Report of inter-governmental Panel on Climate Change brought

out in 2007, has projected a serious picture of the earth's future. The Report has stated that global warming may have a devastating impact on the climate of the earth. It is very likely that climate change can slow down the pace of progress towards sustainable development either directly through increased exposure to adverse impact or indirectly through erosion of the capacity to adapt. To give more concrete action plan to combat climate change, Parties to the United Nation Frame Work Convention on Climate Change in 1997 adopted the Kyoto Protocol in recognition of necessity for strengthening developed country commitments under the convention in furtherance to the objectives of the Convention. The Kyoto Protocol commits the developed countries, including economies in transition, to reduce emissions of greenhouse gases by an average of 5.2 per cent below 1990 levels during 2008-2012. The Kyoto Protocol came into force on 16 February 2005. India is a party to the Kyoto Protocol.

- As a part of voluntary actions to address climate change related concerns, India launched its National Action Plan on climate change on 30 June 2008. It outlines a national strategy that aims at enabling the country adopt to climate change and enhances the ecological sustainability of India's development path. The 'Green India' Project launched to cover six million hectares of degraded forestland through afforestation measures, is an important contribution to the objectives of the National Action Plan.
- Meetings of National Clean Development Mechanism (CDM) Authority were held periodically to consider the CDM Projects for grant of Host Country approval. Till December 2007, the National CDM authority had approved 772 projects in the field of Biomass based Cogeneration, Energy Efficiency, Municipal Solid Waste, Renewable energy such as Wind, Small Hydro projects etc. These projects would generate 433 million certified emission reductions (CERs) by the year 2012, if all these projects successfully get registered with the CDM Executive Board.
- In pursuance of the announcement made by the Finance Minister while presenting the Union Budget 2007-08, the Government set up the Expert Committee on Impacts of Climate Change on 7 May 2007 under the Chairmanship of Dr. R. Chidambaram, Principal Scientific Adviser to Government of India. The Terms of Reference of the committee are to study the impacts of anthropogenic climate change on India and to identify the measures that we may have to take in the future in relation to address vulnerability to anthropogenic climate change impacts. The Expert Committee includes eminent persons from academia, science and also from various Ministries and Departments concerned.
- A coordination committee chaired by Prime Minister called Prime Minister's Council on Climate change was constituted in June 2007 to coordinate national action for assessment, adaptation and mitigation of climate change. The first meeting of the Council was held in July 2007 and the second meeting of the Council was held in November 2007. One of the important decisions, among many other decisions, has been to prepare a National Document compiling action taken by India for addressing the challenge of climate change and the action that it proposes to take, to be called India's National Report on Climate Change.

- The Inter-governmental Panel on climate change (IPCC) has brought out the Fourth Assessment Report on climate change in November 2007. It is based on the three working group reports released during the year; the first on science of climate change, the second on Impacts, Adaptation and Vulnerability to Climate and the third on mitigation of climate change. The IPCC at its 31st session held in October 2009 accepted the outlines of the chapter for its next assessment report on various aspects of climate change.
- The Phase-II of Indo-UK collaborative research on climate change under the aegis of Structured Dialogue on Climate change was initiated. The Ministry of Environment and Forests (MOEF), India and the UK Department of Environment, Food and Rural Affairs (DEFRA) have jointly devised a three year research programme on the impacts and adaptation to climate change in India. The project has been built on India's existing expertise to assess the sectoral impacts of climate change; reduce the uncertainties in current climate change prediction models; and contribute to the science of climate change. The phase II of the project was launched on 11-12 May 2009.

OZONE LAYER PROTECTION

The Government of India has entrusted the work relating to the ozone layer protection and implementation of Montreal Protocol to the Ministry. The Ministry has set up the Ozone Cell as a National Unit to look after and to render necessary services to implement the Protocol and its (ODS) phase-out programme in India. The Ministry has established an Empowered Steering Committee (ESC) chaired by the Secretary (E & F) which is supported by the Standing Committees. These Committees are responsible for the implementation of the Montreal Protocol provisions, Review of various policy and implementation options, project approvals and project monitoring.

India has met the following compliance dates as per the control schedule of the Montreal Protocol:-

- Freeze of CFC production and consumption in July 1999 at 22588 ODP tons and 6681 ODP tons respectively.
- Freeze of halon production and consumption on 1 January 2002.
- Total phase-out of halon production and consumption in 2003.
- 50 per cent reduction of CFC production and consumption in 2005 (production from 22588 MT to 11240 MT and consumption from 6681 MT to 1640 MT).
- 85 per cent reduction of CTC production and consumption in 2005 (production from 11525 MT to 1508 MT and consumption from 11537 MT to 1493 MT).
- Accelerated phase-out of productions of CFCS from 1 August 2008, 17 months earlier than the phase out schedule of the Montreal Protocol.
- Phase out of consumption of CFCs in all applications as on 1 January 2010 except in manufacturing of Metered Dose Inhalers for Asthma and chronic obstructive pulmonary disease patients.

13 Finance

THE Ministry of Finance is responsible for administration of finances of the Government. It is concerned with all economic and financial matters affecting the country as a whole including mobilisation of resources for development and other purposes. It regulates expenditure of the Government including transfer of resources to the states. This Ministry comprises four departments, namely, (i) Economic Affairs, (ii) Expenditure, (iii) Revenue, and (iv) Disinvestment.

ECONOMIC AFFAIRS

The main divisions of the Department of Economic Affairs (DEA) are : (i) Finance Division, (ii) Budget Division including Fiscal Responsibility and Budget Management (FRBM), (iii) Capital Market, (iv) Bilateral Co-operation and Administration, (v) Multilateral Institutions, (vi) Multilateral Relations, and Administration, (vii) Controller of Aid, Accounts and Audit, (viii) Economic Division and (ix) Directorate of Currency. The Department *inter alia* monitors current economic trends and advises the Government on all matters having bearing on internal and external aspects of economic management including, prices, credit, fiscal and monetary policy and investment regulations. This Department also supervises policies relating to Nationalised Banks, Life and General Insurance and Security Paper Mills. All the external, financial and technical assistance received by India, except through specialized International Organisation like FAO, ILO, UNIDO and except under International bilateral specific agreement in the field of science and technology, culture and education are also monitored by this Department. The DEA is also responsible for preparation and presentation to the Parliament of Central Budget and the Budgets for the State Governments under President's Rule and Union Territory Administrations. The Department, Directorate of Currency (DoC) has the administrative control of the Security Printing and Minting Corporation of India Limited (SPMCIL), a wholly owned Government of India Corporation that manages Government of India Mints, Currency Presses, Security Presses and Security Paper Mill. In addition to formulating and executing policies and programmes relating to designs/ security feature of bank notes and coins and issue of commemorative coins, the DoC has also been mandated to conduct Research and Development activities in this area and indigenization of all materials required for production of bank notes and others security products.

Annual Budget

The Union Budget of India, also called the General Budget, is presented each year on the last working day of February by the Finance Minister of India in Parliament.

Annual Financial Statement

Under Article 112 of the Constitution, a statement of estimated receipts and expenditure of the Government of India has to be laid before Parliament in respect of every financial year which runs from 1st April to 31st March. This statement titled "Annual Financial Statement" is the main Budget document. The Annual Financial Statement shows the receipts and payments of Government under the three parts in which Government accounts are kept; (i) Consolidated Fund, (ii) Contingency Fund and (iii) Public Account.

All revenues received by Government, loans raised by it, and also its receipts form recoveries of loans granted by it from the **Consolidated Fund**. All expenditure of Government is incurred from the Consolidated Fund and no amount can be withdrawn from the Fund without authorisation from Parliament.

Occasions may arise when Government may have to meet urgent unforeseen expenditure pending authorisation from Parliament. The **Contingency Fund** is an imprest placed at the disposal of the President to incur such expenditure. Parliamentary approval for such expenditure and for withdrawal of an equivalent amount from the Consolidated Fund is subsequently obtained and the amount spent from Contingency Fund is recouped to the Fund. The corpus of the Fund authorised by the Parliament, at Present is ₹ 500 crore.

Besides the normal receipts and expenditure of Government which relate to the Consolidated Fund, certain other transactions enter Government accounts, in respect of which, Government acts more as a banker, for example, transactions relating to provident funds, small savings collections, other deposits, etc. The moneys thus received are kept in the Public Account and the connected disbursements are also made there from. Parliamentary authorisation for such payments from the Public Account is, therefore, not required. In a few cases, a part of the revenue of Government is set apart in separate funds for expenditure on specific objects like road development, primary education including mid-day meal scheme etc. These amounts are withdrawn from the Consolidated Fund with the approval of Parliament and kept in the Public Account for expenditure on the specific objects. The actual expenditure proposed on the specific objects is, also submitted for vote of Parliament.

Under the Constitution, Budget has to distinguish expenditure on revenue account from other expenditure. Government Budget, therefore, comprises (i) Revenue Budget; and (ii) Capital Budget.

Demands for Grants

The estimates of expenditure from the Consolidated Fund included in the Annual Financial Statement and required to be voted by the Lok Sabha are submitted in the form of Demands for Grants in pursuance of Article 113 of the Constitution. Generally, one Demand for Grant is presented in respect of each Ministry or Department, However, in respect of large Ministries or Departments more than one Demand is presented. Each Demand normally includes the total provisions required for a service, that is, provisions on account of revenue expenditure, capital expenditure, grants to State and Union Territory Governments and also loans and advances relating to the service. In regard to Union Territories without Legislature, a separate Demand is presented for each of the Union Territories. Where the provision for a service is entirely for expenditure charged on the Consolidated Fund, for example, interest payments, a separate Appropriation, as distinct from a Demand, is presented for that expenditure and it is not required to be voted by Parliament; Where, however, expenditure on a service includes both 'voted' and 'charged' items of expenditure, the latter are also included in the Demand presented for that service but the 'voted' and 'charged' provisions are shown separately in that Demand. The Demands for Grants are presented to the Lok Sabha along with the Annual Financial Statement.

Finance Bill

At the time of presentation of the Annual Financial Statement before Parliament, a Finance Bill is also presented in fulfilment of the requirement of Article 110 (1) (a) of the Constitution, detailing the imposition, abolition, remission, alteration or regulation

of taxes proposed in the Budget. A Finance Bill is a Money Bill as defined in Article 110 of the Constitution. It is accompanied by a Memorandum explaining the provisions included in it.

Appropriation Bill

After the Demands for Grants are voted by the Lok Sabha, Parliament's approval to the withdrawal from the Consolidated Fund of the amounts so voted and of the amount required to meet the expenditure charged on the Consolidated Fund is sought through the Appropriation Bill. Under Article 114(3) of the Constitution, no amount can be withdrawn from the Consolidated Fund without the enactment of such a law by Parliament.

The whole process beginning with the presentation of the Budget and ending with discussions and voting on the Demands for Grants requires sufficiently long time. The Lok Sabha is, therefore, empowered by the Constitution to make any grant in advance in respect of the estimated expenditure for a part of the financial year pending completion of procedure for the voting of the Demands. The Purpose of the 'Vote on Account' is to keep Government functioning, pending voting of 'final supply'. The Vote on Account is obtained from Parliament through an Appropriation (Vote on Account) Bill.

Sources of Revenue

In accordance with the Constitution (Eightieth Amendment) Act, 2000, which has been given retrospective effect from 1.4.1996, all taxes referred to in the Union List, except the duties and taxes referred to in Articles 266 and 269, respectively, surcharge on taxes and duties referred to in article 271 and any cess levied for specific purpose under any law made by Parliament, shall be levied and collected by the Government of India and shall be distributed between the Union and the States in such manner as may be prescribed by the President on the recommendations of the Finance Commission. For the period 2005-2010, the manner of distribution between the Centre and the States has been prescribed in Presidential Orders issued after considering the recommendations of the Twelfth Finance Commission. The main sources of Union tax revenue are Customs duties, Union excise duties, Service tax, Corporate and income taxes. Non-tax revenues largely comprise interest receipts, loan repayments, dividends and profits.

Transfer of Resources

The revised estimates of 2009-10, the devolution of tax receipts from the Union Government to the States as their share of taxes and duties was ₹ 164.832 crore. In BE 2010-11, this amount has been increased to ₹ 208.997 crore. Besides, total grants and loans to States and Union Territories will increase from ₹ 150.496 crore in 2009-10 to ₹ 163.901 crore in 2010-11. In addition to above resources are also transferred by Union Government to be state level implementing agencies under various scheme and programmes.

Public Debt

Internal Debt comprises loans raised in the open market, special securities issued to Reserve Bank, compensation and other bonds. etc. It also includes borrowings through treasury bills including 14 days Treasury Bills issued to State Governments only, commercial banks and other parties, as well as non-negotiable, non-interest bearing rupee securities issued to international financial institutions viz., the International Monetary Fund, International Bank for Reconstruction and Development,

International Development Association, International Fund for Agricultural Development, African Development Fund/Bank and Asian Development Bank. The amount outstanding both under internal and external debt/reflect the liability of Government as represented by the book value of the outstanding debt. In addition, Government is liable to repay the outstanding amount against the various Small Savings Schemes, Provident Funds, securities issued to Industrial Development Bank of India, Unit Trust of India and nationalized banks, deposits under the Special Deposit Scheme and depreciation and other interest bearing reserve funds of departmental commercial undertakings, deposits of local funds and civil deposits.

The total net liabilities of the Government of India in BE 2010-11, is estimated at ₹ 3944298.14 crore as against ₹ 38,15,605.98 crore at the end of 2009-2010.

The Reserve Bank manages the public debt of the Central and the State Governments and also acts as a banker to them under the provisions of the Reserve Bank of India Act, 1934 (Section 20 and 21). The Reserve Bank also undertakes similar functions for the States Governments by agreement with the Government of the respective State (under Section 21A).

(₹ Crore)

Item	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010 (RE)	2010 2011 (BE)
Public Debt						
1. Internal Debt (i ot xii)	1389758	1544975	1808359	2028549	2337682	2736754
(i) Market Loans	862370	972801	1092468	1326094	1734505	2079535
(ii) Borrowings under MSS	29062	62974	170554	88773	2737	50000
(iii) 14 days Treasury Bills	39340	39475	68630	98663	98663	98663
(iv) 91 days Treasury Bills	16364	30802	30371	75595	73548	73548
(v) 182 days Treasury Bills	6771	9256	9180	20175	22500	22500
(vi) 364 days Treasury Bills	29014	33369	32201	45546	41364	41364
(vii) Special securities converted into						
Marketable Securities	103818	100318	91318	86818	76818	76818
(viii) Special securities (to Banks) converted into Marketable Securities	0	0	20809	20809	20809	20809
(ix) Compensation and other bonds	72760	62092	71321	47506	37753	31369
(x) Special floating and others loans*	25152	25798	24719	23085	20244	20152
(xi) Other special securities issued to RBI	1489	1489	1489	1489	1489	1489
(xii) Securities against small savings	203618	206601	195299	193996	207252	220507
2. External Debt	94243	102716	112031	123046	139581	162045
Total Public Debt (1+2)	1484001	1647691	1920390	2151595	2477263	2898799
3 Other Liabilities @	776144	890905	917035	1007583	1038643	1045799
Total Public Debt & Other Liabilities	2260145	2538598	2837425	3159178	3515906	3944598

* These represent mainly non-negotiable non-interest bearing securities issued to International Financial Institutions like International Monetary Fund, International Bank for Institutions Reconstruction and Development and Asian Development Bank

@ Comprises accruals under National Small Savings Funds, Special Provident Deposits of Non-Government Funds and Other Reserve Funds and Deposits.

Note : External Debt is at Book Value

RE: Revised Estimates

BE: Budget Estimates

MSS: Market Stabilisation Scheme

New Initiatives in Fiscal Management

The persistent fiscal deficit and concomitant increase in the public debt burden have been identified as the most difficult challenges affecting the country's economic growth prospects. To enforce fiscal discipline, the Parliament had passed the Fiscal Responsibility and Budget Management (FRBM) Act, 2003. Both the Act and the Rules made there-under came into force in July, 2004. The FRBM Act, as amended in 2004, mandates the Government to *inter alia*, eliminate the revenue deficit by 2008-09. As per the FRBM Rules, a minimum annual reduction in the revenue deficit of 0.5 per cent of GDP is targeted. Other obligations of the Government under the amended FRBM Act, 2003 and FRBM Rules, 2004, include (i) to reduce the fiscal deficit by at least 0.3 per cent of the GDP, so that the deficit is not more than three per cent of GDP by the end of 2008-09 (ii) to limit Government guarantees to 0.5 per cent of the GDP in any financial year (iii) to limit additional liabilities (including external debt at current exchange rate) to five per cent of GDP in 2008-09.

Further, in compliance with the obligations under the Act, the Government has stopped borrowing from the Reserve Bank of India in primary auctions of Government Securities. Also, quarterly statements on trends in receipts and expenditure are being presented in the Parliament. In order to have greater fiscal transparency, information on guarantees, assets and unrealised revenue are being reported in the Annual Budget documents.

The deficit targets envisaged in Budget 2010-11 are as follows:

As a percentage of GDP

S. No.	Item	Revised Estimate	Budget Estimates	Targets for	
		2009-10	2010-11	2011-12	2012-13
1.	Revenue Deficit	5.3	4.0	3.4	2.7
2.	Fiscal Deficit	6.7	5.5	4.8	4.1
3.	Gross Tax Revenue	10.3	10.8	11.5	11.8
4.	Total Outstanding Liabilities at the end of the year.*	51.6	51.1	50.0	48.2

* "Total Outstanding Liabilities" include external public debt at current exchange rates. For projections, constant exchange rates have been assumed.

The process of fiscal consolidation during the FRBM Act regime has created necessary fiscal space to undertake much needed social sector expenditure and provide for higher infrastructure outlays. The performance upto 2007-08 was heartening. Fiscal deficit was brought down from 4.5 per cent of GDP in 2003-04 to 2.7 per cent in 2007-08. Similarly, revenue deficit was reduced from 3.6 per cent of GDP in 2003-04 to 1.1 per cent in 2007-08. The Government was steadfast in following the fiscal consolidation path.

Subsequent to the global meltdown, there was a compelling need to adjust the fiscal policy to take care of exceptional circumstances. Consequently, the mandated

targets of fiscal deficit and revenue deficit could not be adhered to in 2008-09 and 2009-10. Interventions of the Government through various fiscal and administrative measures together with monetary measures initiated by the RBI, have started showing results. The economy grew at 7.4 per cent in the fiscal 2009-10. This is better than the growth of 6.7 per cent during 2008-09.

The financial performance at the end of the year is broadly in line with the Revised Estimates 2009-10. The endeavour is to right pace plan expenditure to ensure availability of adequate resources for execution of budgeted schemes. Delaying expenditure, to match revenue receipts, would result in rush of expenditure at the end of the financial year, thereby affecting the quality of execution and related outcomes. Sustained efforts are being made to have better cash management and expenditure moderation in non-priority areas to make adequate resources available from realised receipts for priority items.

Thirteenth Finance Commission

The Thirteenth Finance Commission was constituted by the President on November 13, 2007 to give recommendations on specified aspects of Centre State fiscal relations during 2010-15. The Commission submitted its report to the President on December 30, 2009 covering all aspects of its mandate. The report of the Commission covering the five year period commencing from April 1, 2010, together with this Explanatory Memorandum as to the action taken on the recommendations of the Commission has been laid on the Table of the House on 25th February, 2010 in pursuance of Article 281 of the Constitution. The main recommendations of the Commission relating to the sharing of net proceeds of Union taxes between Centre and States, grants-in-aid of revenue of States under Article 275, Goods and Services Tax (GST), financing of relief expenditure and roadmap for fiscal consolidation are contained in Chapter 1 of the Report of the Commission.

Budgetary Development 2010-11

Highlights of Budget 2010-11 include

- Hike in gross budgetary support (GBS) for the plan from ₹ 325149 crore in 2009-10 (BE) to ₹ 373092 crore in 2010-11 (BE), an increase of about 15 per cent.
- The Budget seeks to address the three challenges facing the economy-to lead the economy back to the high GDP growth rate of 9 per cent per annum, to harness economic growth to consolidate, deepen and broaden the agenda for inclusive development and to energise government and improve delivery mechanism.
- The education and health sectors were allocated substantial funds. In 2010-11 the budget allocation for education was enhanced by 12 per cent to ₹ 49904.00 crore while for the Health and Family Welfare it was enhanced by 19 per cent to ₹ 25154.00 crore.

Social Sector Programmes

The eight flagship programmes continued to receive high priority, viz. Sarva Sikha Abhiyan; Mid-Day meal Scheme, Rajiv Gandhi Drinking Water Mission; Rural Sanitation; National Rural Health Mission; Integrated Child Development Programme, National Rural Employment Guarantee Scheme and Jawaharlal Nehru

National Mission Urban Renewal Mission. Total allocation under these eight flagship schemes were enhanced from ₹ 103154 crore in 2009-10 to ₹ 11.0589 crore in 2010-11 marking an increase in allocation by 7.20 per cent.

Scheduled Castes and Scheduled Tribes

From 2005-06, a separate statement on the schemes for the welfare of Scheduled Castes (SCs) and Scheduled Tribes (STs) is placed in the budget document. Keeping in view the commitment of the Government to the welfare of SCs and STs, the allocations under schemes benefiting only SCs/STs have been enhanced by 25.14 per cent from the previous year to ₹ 7423.71 crore during 2010-11 (BE). Similarly, for the schemes with at least 20 per cent allocation of SCs/STs, the allocations have been enhanced by 20.43 per cent to ₹ 27694.06 crore during 2010-11 (BE).

Benefit to Women (Gender Budgeting)

In BE 2010-11, a total budget provision of ₹ 19,266 crore has been provided for 100 per cent woman specific programmes and ₹ 48.484 crore for schemes where at least 30 per cent allocation is for women specific programmes.

Welfare of Children (Child Budgeting)

A statement 'Provision for Schemes for the Welfare of Children' has been included from the financial year 2009-10. It indicates provision for educational outlays, provisions for child protection etc. The allocation for BE 2010-11 under Welfare of Children is ₹ 44961 crore.

Details relating Union Budget are available on the website of Ministry of Finance viz www.finmin.nic.in

Capital Market

- The market regulator, the Securities and Exchange Board of India (SEBI) became a Statutory body in 1992. Through an amendment in 1999, SEBI was empowered to regulate collective investment schemes and plantation schemes. Further amendments were made to the SEBI Act in 2002 for organisational strengthening and for further empowerment through compliance and enforcement powers, including search and seizure powers.
- Although dematerialisation started in 1997 after the legal foundations for electronic book keeping were provided and depositories created, the regulator mandated gradually that trading in most of the stocks take place only in dematerialised form.
- Till 2001, India was the only sophisticated market having account period settlement alongside the derivatives products. From the middle of 2001, uniform rolling settlement and same settlement cycles were prescribed creating a true spot market.
- After the legal framework for derivatives trading was provided by the amendment of the Securities Contracts (Regulation) Act, 1956 (SCRA) in 1999, derivatives trading started in a gradual manner with stock index futures in June 2000. Later, options and single stock futures were introduced in 2000-2001 and now India's derivatives market turnover is more than the cash market and India is one of the largest single stock futures markets in the world.
- India's risk management systems have always been very modern and effective. The VaR based margining system was introduced in mid 2001 and the risk

management systems have withstood huge volatility experienced in May 2003 and May 2004. This included real time exposure monitoring, disablement of broker terminals, VaR based margining etc.

- India is one of the few countries to have started screen based trading of government securities in January 2003.
- In June 2003, interest rate futures contracts on the screen based trading platform were introduced.
- India is one of the few countries to have started Straight Through Processing (STP), which will completely automate the process of order flow and clearing and settlement on the stock exchanges.
- RBI introduced Real Time Gross Settlement system (RTGS) in 2004 on an experimental basis. RTGS will allow real delivery v/s payment which is the international norm recognized by BIS and IOSCO.
- The regulatory and supervisory framework of the securities market in India has been progressively strengthened through various legislative and administrative measures and is consistent with the best international benchmarks, such as, standards prescribed by the International Organisation of Securities Commissions (IOSCO).

Policy Initiatives and Development in the Capital Markets

- **Corporation and Demutualization of Stock Exchanges** Corporation and Demutualization of Stock Exchanges was mandated through an amendment to the Securities law in 2004. Of the 24 operational stock exchanges, 20 have since been corporatized and demutualised. NSE, OTCEI and MCX-SX were corporatized and demutualised from its very beginning. Only exchange that is not demutualised is Coimbatore Stock Exchange. One stock exchange, i.e. Hyderabad Stock Exchange, failed to demutualise by the due date and has therefore been de-recognized. Saurashtra Kutch Stock exchange, Mangalore Stock exchange and Magadh Stock exchange have been de-recognized for various irregularities/non compliances. SEBI had formed a Three Member Committee to look after the day to day affairs of Coimbatore Stock Exchange which had sought voluntary derecognition.
- **Corporate Bond Markets**

The Government had set up a High-Level Expert Committee on Corporate Bonds and Securitisation (Patil Committee) to look in to legal, regulatory, tax and market design issues in the development of the corporate bond market. The Committee submitted its report to the Government in December, 2005. The Budget of 2006-07 announced that the Government has accepted the recommendations of the Report and that steps would be taken to create a single, unified exchange-traded markets for corporate bonds. The measures already taken in respect of implementation of the recommendations of the Patil Committee include:

- The regulatory jurisdiction of RBI and SEBI with respect to regulation of corporate bond market has been clarified. SEBI is responsible for primary and secondary debt market while RBI is responsible for the Market for repo/reverse repo transactions in corporate debt.
- The Securities Contracts (Regulation) Act, 1956 has been amended to include securitized instruments within the ambit of 'securities'.

- The RBI Act has been amended to empower RBI to develop and regulate market for Repos in corporate bonds.
- The trade reporting platform for corporate bonds has been operationalised since 1st January, 2007.
- The Finance Act, 2008 (with effect from 01/06/2008) mandated that no TDS (tax deduction at source) would be deducted from any interest payable on any security issued by a company, where such security is issued in dematerialised form and is listed on a recognised stock exchange in India.
- SEBI (Issue and Listing of Debt Securities) Regulations, 2008 simplifies disclosures and listing requirements.
- Since January 2009, the limit of FLLs investment in corporate bonds has been increased to USD 15 billion.
- Repos in corporate bonds have been permitted, following RBI guidelines. since March 2010.
- **Securities Contracts (Regulation) Amendment Act, 2007**

The Securities Contracts Regulation Act, 1956 has been amended to include securitization instruments under the definition of "securities" and provide for disclosure based regulation for issue of the securitized instruments and the procedure thereof. This has been done keeping in view that there is considerable potential in the securities market for the certificates or instruments under securitisation transactions. The development of the securities debt market is critical for meeting the humungous requirements of the infrastructure sector, particularly housing sector, in the country. Replication of the securities markets framework for these instruments would facilitate trading on stock exchanges and in turn held development of the market in terms of depth and liquidity.

- **Foreign Investment in Stock Exchanges**

Foreign investment upto 49 per cent has been allowed in infrastructure companies in the securities markets. viz. stock exchanges, depositories and clearing corporations, with separate Foreign Direct Investment (FDI) cap of 26 per cent and Foreign Institutional Investment (FII) cap of 23 per cent. Currently a person, along with persons acting in concert, can hold up to 5 per cent of shares in a recognized stock exchange. In order to encourage competition in the exchange space, the SEBI Board has decided to enhance this limit from 5 per cent to 15 per cent in respect of six categories of shareholders, namely public financial institutions, stock exchanges, depositories, clearing corporations, banks and insurance companies.

- **PAN as the sole identification number**

PAN has been made the sole identification number for all transactions in securities market. It is an investor friendly measure as he does not have to maintain different identification numbers for different kinds of transactions/different segments in financial markets. Further, identification through PAN would help the authorities in enforcement action. In the Budget of 2008-09, it was proposed that the requirement of PAN be extended to all transactions in the financial market subject to suitable threshold exemption limits.

- **Equity Finance for the Small and Medium Enterprises (SMEs)**

In recognition of the need for making finance available to needy small and medium enterprises, SEBI Board in its meeting held on 25th October, 2007 had agreed to the

creation of a separate Exchange for the SMEs. SEBI on May 18, 2010 has permitted for setting up of a Stock exchange/a trading platform for SMEs by a recognized stock exchange having nationwide trading terminals and also issued Guidelines for market making for the specified securities listed on the SME exchange. Further, necessary amendments to the SEBI (Issue of Capital and Disclosure Requirements) Regulations, 2009; SEBI (Merchant Bankers) Regulations, 1992; SEBI (Foreign Institutional Investors) Regulations, 1995. SEBI (Venture Capital Funds) Regulations, 1996; SEBI (Substantial Acquisition of Shares and Takeovers) Regulations; 1997 and SEBI (Stock Brokers and Sub-brokers) Regulations; 1992 have also been carried out, to enable the SMEs to access the capital market. Based on the finalized regulations, applications have been received for setting up SME Platforms from NSE, BSE and MCX-SX.

- **IPO Grading**

SEBI has made it compulsory for companies coming out with IPOs of equity shares to get their IPOs graded by at least one credit rating agency registered with SEBI from May 1, 2007. This measure is intended to provide the investor with an informed and objective opinion expressed by a professional rating agency after analyzing factors like business and financial prospects, management quality and corporate governance practices etc. The grading would be disclosed in the prospectus, abridged prospectus and in every advertisement for IPOs.

In order to facilitate government companies/corporations, statutory authorities/corporations or any special purpose vehicle engaged in infrastructure sector to raise funds in the Indian Primary market through IPOs, SEBI relaxed certain provisions of SEBI (DIP) Guidelines.

- **Permitting Indian mutual funds to invest in overseas securities**

SEBI has fixed the aggregate ceiling for overseas investments at US \$ 7 billion. Within the overall limit of US \$ 7 billion, mutual funds can make overseas investments subject to a maximum of US \$ 300 million per mutual fund. Further different regulations that allow individuals and Indian mutual funds to invest in overseas securities by permitting individuals to invest through Indian mutual funds has been converged.

- **Real Estate Mutual funds**

The guidelines for Real Estate Mutual funds were approved by the SEBI Board in June 2008. During 2007-08, steps were taken to address certain residual issues relating to accounting and valuation of assets, in discussion with AMFI, ICAI and Credit Rating Agencies. The necessary amendments to the SEBI (Mutual Fund) Regulations 1996 were thereafter notified on April 16, 2008.

- **New Derivative Products**

Mini derivative contract on Index (Sensex and Nifty) having a minimum contract size of Rs. 1 lakh have been introduced. It has been found that globally overall market liquidity and participation generally increases with introduction of mini contracts. Since January 11, 2008 SEBI has also allowed trading on options contracts on indices and stocks with a longer life/tenure of upto five years. These contracts are expected to provide liquidity at the longer end of the market. Since January 15, 2008 SEBI has permitted introduction of volatility index on futures and options contracts. As openly SEBI has permitted introduction of volatility index on futures and options contracts. An openly available and quoted measure of market volatility in the form of an index will help market participants.

- **Short Ceiling**

In pursuance to budget announcement, SEBI has issued a circular on 20th December, 2007 to permit short selling by institutional investors and securities lending and borrowing to support settlement of short sales. This has been implemented in March 2008. This framework was operationalised with effect from April 21, 2008. As per the framework for short selling in the Indian Market, naked short selling is not allowed. All classes of investors are allowed to short sell provided they arrange for delivery of the shares for settlement. To enable borrowing of shares, the securities lending and borrowing framework has been put in place. Further, there is requirement for reporting of short sales and lending and borrowing transactions under the framework. As per the data available on exchange websites, there have been negligence short selling transactions in the cash market. Pursuant to feedback received from the market participants, the scheme for Securities lending and Borrowing was modified vide circular dated October 31, 2008.

- **Insider Trading Regulations**

SEBI has tightened its insider-trading norms on 19th November, 2008 by amending SEBI (Prohibition of Insider Trading) Regulations, 1992. The existing provision was slightly modified to clarify that even if a person was not connected with the concerned company, if it were found that he had received or had access to the unpublished price sensitive information, then he would be considered an insider.

- **Shift to Free Float Methodology**

Globally, the free-float methodology of index construction is considered to be the industry, best practice and all major index providers like MSCI, FTSE, S and P Dow Jones, and STOXX have adopted the same. BSETECK index - the country's first free-float index was launched in July 2001, and BANKEX, also by BSE, was introduced in June 2003. After gaining experience with these two indices and following a series of discussions, BSE indices with the exception of BSE-PSU index have adopted the free-float methodology. NSE has shifted Nifty, Defty and CNX 100 index calculation to free float market capitalization methodology, in place of the present full market capitalization weighted methodology, with effect from June 26, 2009. In case of the CNX Nifty Junior Index the same has been implemented with effect from May 4, 2009.

- **Launching Self Regulatory Organisations**

SEBI has notified SEBI (Self Regulatory Organizations) Regulations 2004 to enable recognition of organization of intermediaries as SROs in the Indian securities markets. Government of India, in consultation with SEBI had commissioned a study from the World Bank to suggest a suitable SRO model in the Indian context which submitted its report in August 2008 titled 'India Role of Self regulatory organizations in securities market regulation'. SEBI has now identified a broad policy framework for SROs based on the feedback received from Investors' associations and recommendations of the World Bank. Meanwhile SEBI is also exploring options to set up SROs under the proposed SEBI (Investment Advisors) Regulations wherein an SRO structure was mooted to regulate the investment advisors. Based on the Swarup Committee recommendations on the subject, SEBI may first decide on the regulation for investment advisors after which SRO regulations will taken up.

- **Transparency in Payment of Commission to mutual fund distributors**

- a. SEBI has recently decided to migrate from the system of fixed commission to

mutual agents and replacing the same by a system of fee paid by investors based on the investor advice, In brief it has been decided that.

- b. There shall be no entry load for all schemes launched by an AMC.
- c. The upfront commission to distributors shall be paid by the investors to the distributors directly.
- d. The distributor shall disclose all the commissions in the form of trail commission or any other mode payable to them for all the different schemes of different mutual funds.
- e. SEBI has stipulated that there should be parity among all classes of unit holders as far as imposition of exit load is concerned.

- **Frameworks for Delisting of Securities**

The Securities Laws (Amendment) Act enacted in 2005, incorporated section 21 (A) in the Securities Contract Regulation Act (SCRA) to allow delisting of securities necessitating the creation of a delisting framework. In order to provide statutory backing for the delisting framework, Rules dealing primarily with the substantive aspects and Regulations dealing primarily with the procedural aspects for delisting were notified simultaneously by the Government and Securities and Exchange Board of India respectively on June 10th 2009 in the Gazette of India. Provision is made for compulsory delisting (on account of losses for 3 consecutive years and negative net worth, suspended trading in shares for more than 6 months infrequent trading in the past 3 years, promoters charged of failure to comply with provisions of the Acts, false addresses, shareholding by the public coming down a stipulated minimum) and voluntary delisting (for securities that have been listed for a minimum period of 3 years and which are approved by 2/3rd of shareholders, and in the case of buyback). Special provisions are made for delisting in the case of small companies.

- **Rules for Clearing Corporation**

SCRA was amended in 2004 to provide for Clearing and Settlement by a Clearing Corporation (CC). It provides that an Exchange may, with the approval of SEBI, transfer the duties and functions of a clearing house to a recognized CC for the purpose of the periodical settlement of contracts and differences there under, and the delivery of, and payment for securities. With intensive discussions and consultations with SEBI, World Bank and Experts, Clearing Corporations Rules have been finalised. The same will now be discussed in the Bimal Jalan Committee on new corporate governance and the ownership structure of Market Infrastructure Institutions (MII).

- **Easing IPO payment process**

SEBI has recently introduced the process of Application Supported by Blocked Amount (ASBA), The idea is to reduce the gap between the time a company completes its public offering and the listing of shares. The process will ensure that an investors money is not locked in for over three weeks. The Self Certified Syndicate Banks (SCSB) would block the bid amount, upload the details in the electronic bidding system of the BSE or NSE and unblock once the basis for allotments finalized, and transfer the amount for allotted shares to the issuer.

Amendments pertaing to issue Process

- The amendments made to issue process were; a) mandatory quoting of PAN in application form, b) permitting of discount in issue price for retail investors/retail

shareholders, c) providing definition for 'retail individual shareholder' for listed companies, d) giving clarification on the term CEO/CFO, e) deleting of the chapter on guidelines for issue of capital by designated financial institutions (DFIs), monitoring of issue proceeds and g) making of pledged shares eligible for computation of minimum promoters' contribution.

Amendments to Clause 41 of the Listing Agreement

- The clause 41 of the Listing Agreement was revised to provide an option to the listed companies to furnish either, unaudited or audited quarterly and year-to-date financial results to the stock exchange within one month of the end of each quarter (other than the last quarter). In case the company opts to submit unaudited financial results, they will be subjected to limited review by the statutory auditors of the company (or in case of public sector undertakings, by any practicing Chartered Account) and a copy of the limited review report will be furnished to the stock exchange within two months from end of the quarter. In case the company opts to submit audited financial results, they will be accompanied by the audit report. The revised clause also specified the manner of approval and unauthentication of the financial results and formats.

Amendments to Clause 49 of the Listing Agreement

- Clause 49 of the Listing Agreement was amended to provide for a monitoring agency on utilization of issue proceeds, the report of which would be placed before the Audit Committee of the issuer company. The Audit Committee, in turn, would make appropriate recommendations to the Board of the issuer company. Issuer company was also required to state material deviations in the utilization of issue proceeds to the stock exchanges.

Increase in Public Shareholding Norms

The Securities Contracts (Regulation) Rules 1957 provide for the requirements which have to be satisfied by companies for the purpose of getting their securities listed on any stock exchange in India. The Securities Contracts (Regulation) (Amendment) Rules, 2010 notified on June 4th 2010 provided for all listed companies to raise a minimum of 25 per cent public shareholding. Subsequently on reconsideration it was decided to allow for a lower public shareholding for public sector enterprises (PSEs) and provide flexibility to all companies in attaining 25 per cent (or 10 per cent for PSEs) public shareholding level within three years without any annual floor.

The salient features of the amendment are as follows:

- a) The minimum requirement of public holding for all PSEs will be 10 per cent only.
- b) Any listed company which has public shareholding below twenty five per cent on the commencement of the Securities Contracts (Regulation) (Amendment) Rules, 2010, shall increase its public shareholding to at least twenty five per cent, within a period of three years.
3. A listed public sector company which has public shareholding below ten per cent on the date of commencement of the Securities Contracts (Regiment) (Second Amendment) Rules, 2010 shall increase its public shareholding to at least ten per cent within a period of three years.

Most Recent Steps

FSDC: FM had announced in the Budget Speech 2010-11, the creation of a Financial Stability and Development Council (FSDC) to strengthen and institutionalize the

mechanism for maintaining financial stability and monitor macro prudential supervision of the economy including functioning of large financial conglomerates and address inter-regulatory coordination issues, without prejudice to the autonomy of regulators. DEA is working on implementing the budget announcement. A draft discussion paper on the subject has been sent to the regulators for their comments.

FSLRC : In the budget (2010-11) speech the creation of a Financial Sector Legislative Reforms Commission (FSLRC) was announced. It was highlighted that most of our legislations governing the financial sector are very old. Large number of amendments to these Acts made at different points of time has also increased ambiguity and complexity. The FSLRC is going to be entrusted with the task of rewriting and cleaning up the financial sector laws to bring them in line with the requirement of the sector.

External Commercial Borrowings

• Review of ECB Policy

The External Commercial Borrowing (ECB) policy is regularly reviewed by the Government in consultation with Reserve Bank of India (RBI) to keep it in tune with the evolving macroeconomic situation, changing market conditions, sectoral requirements, the external sector and lessons of experience. At present, Indian companies are allowed to access funds from abroad in the following methods:

Methods of accessing funds from abroad as debt

External Commercial Borrowings (ECB) refer to commercial loans in the form of bank loans, buyers' credit, suppliers' credit, securitized instruments (e.g. floating rate notes and fixed rate bonds, non-convertible, optionally convertible or partially convertible preference shares) availed of from non-resident lenders with a minimum average maturity of 3 years.

Foreign Currency Convertible Bonds (FCCBs) mean a bond issued by an Indian company expressed in foreign currency, and the principal and interest in respect of which is payable in foreign currency. Further, the bonds are required to be issued in accordance with the scheme viz, 'Issue of Foreign Currency Convertible Bonds and Ordinary Shares (Through Depository Receipt Mechanism) Scheme, 1993', and subscribed by a non-resident in foreign currency and convertible into ordinary shares of the issuing company in any manner, either in whole, or in part, on the basis of any equity related warrants attached to debt instruments. The ECB policy is applicable to FCCBs.

Preference shares (i.e. non-convertible, optionally convertible or partially convertible) for issue of which, funds have been received on or after May 1, 2007 would be considered as debt and should conform to policy.

Foreign Currency Exchangeable Bond (FCEB) means a bond expressed in foreign currency, the principal and interest in respect of which is payable in foreign currency, issued by an Issuing Company and subscribed to by a person who is a resident outside India, in foreign currency, and exchangeable into equity share of another company, to be called the Offered Company, in any manner, either wholly, or partly or on the basis of any equity related warrants attached to debt instruments. The FCEB must comply with the 'Issue of Foreign Currency Exchangeable Bonds (FCEB) Scheme, 2008". The guidelines, rules, etc governing ECBs are also applicable to FCEBs.

Extant Policy

ECBs are being permitted by the Government as an additional source of finance to augment the resources available domestically to Indian corporate for financing import of capital goods, new projects, modernization/expansion of existing production units in real sector - industrial sector including small and medium enterprises (SME) and infrastructure sector - and in the services sector viz. hotels, hospitals and software companies for import of capital goods, for foreign currency and/or rupee capital expenditure. ECBs are approved within an overall annual ceiling, consistent with prudent debt management. End-uses of ECB for working capital, general corporate purpose and repayment of existing rupees loans are not permitted.

A prospective borrower can access ECB under two routes, namely the automatic route and the approval route. A corporate, other than a financial intermediary, registered under the Companies Act, 1956, can access ECB under the automatic route up to US \$ 500 million in a financial year both for rupee expenditure and/ or foreign currency expenditure for permissible end uses. The borrowers in the services sector viz, hotels, hospitals and software companies can access ECB under the automatic route up to US\$ 100 million in a financial year for import of capital goods, for rupee and / or foreign currency capital, expenditure and NGOs engaged in micro finance activities up to US\$ 5 million in a financial year includes power, telecommunication including manufacturing of telecom equipment, railways, roads, including bridges, port including air port and sea port, industrial parks, urban infrastructure (such as water supply, sanitation, and sewage projects), mining, exploration and refining and "cold storage or cold room facility, including for farm level pre-cooking, for preservation or storage of agricultural and allied produce, marine products and meat".

The ECB which is not covered by the automatic route is considered under the approval route on a case-by-case basis by RBI.

ECB policy is operationalised through notifications issued by the Reserve Bank of India (RBI) under the Foreign Exchange Management Act, 1999. These can be accessed on RBI's website.

The norms applicable to ECB are also applicable to foreign currency Convertible Bonds (FCCBs) in all respects, except in the case of housing finance companies for which criteria will be notified by RBI.

As per the extant norms, infrastructure Finance Companies (IFCs) i.e. Non Banking Financial Companies (NBFCs) categorized as IFCs by the Reserve Bank were permitted to avail of ECBs for on-lending to the infrastructure sector, as defined in the extant ECB policy, under the **approval route**. One a review undertaken in April-May 2010, as a measure of liberalization of the existing procedures, it has been decided to permit the IFCs to avail of ECBs, including the outstanding ECBs, **up to 50 per cent** of their owned funds under the **automatic route**, subject to their compliance with the prudential guidelines already in place. ECBs by IFCs **above 50 per cent** of their owned funds would require the approval of the Reserve Bank and will, therefore, be considered under the **approval route**.

As per the extant norms, refinancing of domestic Rupees loans with ECB was not permitted. However, keeping in view the special funding needs of the infrastructure sector, it has been decided to put in place a scheme of take-out finance

arrangement through ECB, under the approval route, for refinancing of Rupee loans availed of from the domestic banks by eligible borrowers in the sea port and airport, roads including bridge and power sectors for the development of new projects, subject to conditions stipulated by RBI in its A.P. (Dir Series) Circular No. 04 dated July 22, 2010.

Indian companies were allowed to buy back their Foreign Currency Convertible Bonds (FCCBs) under the approval route, upto June 30, 2010. On a review of policy and in view of the representations received from the issuers of FCCBs. It has been decided to consider applications, under the approval route, for buyback of FCCBs until June 30, 2011, subject to the issuers complying with all the terms and conditions of buyback/pre-payment of FCCBs.

At present, entities in the services sectors viz., Hotels, Hospitals and Software are allowed to avail of ECB up to USD 100 million per financial year under the Automatic Route, for foreign currency and/or Rupee capital expenditure for permissible end-uses. On a review it has now been decided to consider applications from the corporate in the Hotel, Hospital and Software sectors to avail of ECB beyond USD 100 million under the Approval Route.

At present, FIIs registered with SEBI are permitted to invest in Government Securities and corporate bonds up to USD 5 billion and USD 15 billion respectively.

BILATERAL RELATION

Indo-German Development Cooperation

Indo-German Development Cooperation is an important component of bilateral economic relations. The Federal Republic of Germany (FRG) has been providing both financial and technical assistance to India since 1958. Financial assistance of Financial Cooperation (FC) from Germany is mainly as soft loan, reduced interest loans as well as grants routed through KW, the German Government's Development Bank. The technical assistance or Technical Cooperation (TC) is provided through the GTZ-a fully-owned corporation of German Government.

During last five decades, the German Development Cooperation has significantly contributed in all the important sectors, such as health, infrastructure development, rural development, poverty alleviation, economic reforms, consumer protection, environment protection, SME development, etc.

The "Strategic Framework for Indo-German Bilateral Development Cooperation" acts as guiding framework for bilateral development partnership. The objective is to focus on making greatest possible impact on national development processes and poverty reduction and supplementing efforts to solve global structural problems like environmental degradation and climate change. In alignment with our Plan priorities and above development agenda, priority areas to be focused under Indo-German bilateral development cooperation will be:

- (i) Energy : including energy efficiency, renewable energy, energy sector reform.
- (ii) Environment, including urban and industrial environmental protection, natural resources management and
- (iii) Sustainable economic development, including rural financing, social security systems, SME development and financing.

Outside the priority areas, financial cooperation will be continued to Pulse Polio immunization programme.

Main projects/programmes being funded under German assistance are: Energy efficiency programmes, Rural Water Supply (Rajasthan), Pulse Polio immunization Programme, financial assistance of NABARD/SIDBI, Railway signalling etc.

Indo-France Development Cooperation

The Government of France was extending development assistance to India since 1968. Earlier, French assistance was provided as treasury loan and had been tied in supply of goods and services from France, which is not possible under our existing policy. French development assistance was not significant in amount. In 2006, Government of France proposed to provide united development assistance to India through the French Agency for Development (AFD). In this regard, an inter-governmental Agreement was signed between the two Governments on 25.01.2008. In pursuance of the inter-governmental Agreement, a Memorandum of Understanding (MoU) between the Department of Economic Affairs and AFD was signed on 29.09.2008. It has been agreed that the French development assistance through AFD will focus at projects contributing to the sustainable management of global public goods, *inter alia* (i) energy efficiency, renewable energy and public transport (ii) the preservation of biodiversity and (iii) the limitation of the spread of emerging and contagious diseases.

India-UK Development Cooperation

The Government of UK has been providing bilateral development assistance to India since 1958. India is the largest recipient of Official Development Assistance (ODA) from UK globally. UK is also the largest provider of grant assistance to India. Development assistance from UK is largely administered by their Department for International Development (DFID).

The main recipient of DFID assistance is Government of India for implementing Central and State Sector projects. DFID also provides assistance to Multilaterals, namely World Bank, Asian Development Bank (ADB), United Nations Children's Fund (UNICEF), World Health Organization (WHO) for implementing programmes in India. Additionally, DFID, through its civil society programmes, namely, Poorest Areas Civil Society Programme (PACS) and International Non Government Organisation (NGO) Partnership Agreements Programme (IPAP) supports Indian NGOs.

DFID focuses its development assistance on education, health and HIV/AIDS, slum development and rural livelihoods with an aim to achieve Millennium Development Goals (MDGs). Apart from supporting national programmes. (Sarva Shiksha Abhiyan, Reproductive and Child Health, National AIDS Control Programme), DFID supports five states, namely Andhra Pradesh, Bihar, Madhya Pradesh, Orissa and West Bengal in implementing programmes in above-referred priority sectors.

Italy

Italy has been providing concessional assistance to India since 1981. Prior to 1981, Italy was providing suppliers' credit to importers directly. Bilateral agreement on Technical Cooperation concluded in February, 1981 whereby Italy agreed to provide exports services and related equipment on grant basis for specific projects.

Government of Italy is providing an interest free loan amounting to Euro 25,822,844.95 for Water Supply and Solid Waste Management Project in 16 selected towns of West Bengal, with repayment period of 39 years, including a grace period of

19 years. The project was signed on 10th January 2006. A loan amount of ₹ 1,857 crore has been disbursed till date.

Norway

The Norwegian Bilateral Development Assistance Programme in India began in 1952 with traditional fisheries project in Kerala, by way of technical assistance and financial support. Since 1970, Norwegian assistance was received as grant for technical cooperation and local cost projects, mainly in special and environmental sectors.

Norway, being a non G-8 and non-EU country, ODA from Norway is not acceptable in accordance with the existing policy on Bilateral Development Cooperation. The policy is under revision.

Austria

India and Austria enjoy a close and friendly economic relationship. Presently, there is no activity under bilateral development cooperation programme between India and Austria. As per the existing guidelines, Austria, being EU and non-G8 country, need to commit a minimum annual development assistance of US\$25 million to India. Austria has not responded to the existing policy on the Bilateral Development Cooperation.

Subsequent to the meeting between Mr. Josef Proll, Federal Minister of Finance, Austria and Hon'ble FM on 18th February, 2010, Austria desires to enter into negotiations for a possible future financial cooperation with India through Austrian Soft Loan Scheme for financing of commercially non-viable projects/ sectors e.g. infrastructure, automotive industries, hydropower, clean energy and energy efficiency/transporation. Austria is looking forward for signing of revised Indian-Austrian Double Taxation Convention also.

Austrian side has forwarded a proposal of the Austrian Federal Ministry of Finance on Austrian Soft Loan Financing Scheme for India, which is under consideration.

European Union

The European Union (EU) provides assistance through Development Cooperation in form of Grants. The priority areas include environment, public health and education. EU implements development cooperation programmes through Country Strategy Paper (CSP). The CSP is based on EU objectives, on the policy agenda of the partner country and on an analysis of the country/region situation. Therefore, there is no concept of annual commitments. The CSP generally covers two consecutive Multi-annual Indicative Programme (MIP)

The current CSP for the 2007-2008, covers Multiannual indicative Programme-I (MIP-I) for the period 2007-2010 and Multinual indicative Programme-II (MIP-II) for the period 2011-2013.

An Memorandum of Understanding (MoU) for MIP-I (2007-2010) was signed between India and EU on 30.11.2007 during the 8th India-EU Summit held in New Delhi. For MIP-I, EU has earmarked a total assistance amounting to Euro 250 million, of which Euro 110 million is for the health sector, Euro 70 million for the education sector and Euro 80 million for India-EU Joint Action Plan (JAP). Department of Commerce is the nodal ministry for implementation of JAP. JAP provides the necessary framework for deeper cooperation and engagement through adoption of specific measures in various sectors. viz., Industrial Policy, Science and Technology, Finance

and Monetary Affairs, Environment, Energy Information and Communication Technologies, Transport, Shipping, Space Technology, Pharmaceuticals and Biotechnology Agriculture, Customs, Employment and Social Policy, Business Cooperation and Development Cooperation.

The major programmes of Government of India which receives EU aid alongwith other development partners are Sarv Shiksha Abhiyan (SSA) and National Rural Health Mission (NRHM)/Reproductive Child Health (RCH).

For MIP-II for the period 2011-2013, EU has indicated an amount of Euro 210 million. The MoU for MIP-II is likely to be signed in the later half of 2010. According to the Draft Concept Note for MIP-II (2011-13), there will be increased focus on social sectors (Health and Education), while there will be a limited support for implementation of the Joint Action Plan (JAP). Under, MIP-II EU could provide financing to support quality improvement of primary education through financing of Rashtriya Madhyamik Shiksha Abhiyan (FMSA) and/or support private -public-partnerships (PPP) to enhance quality of vocational education. The funds will also be made available to support health related Millennium Development Goals (MDGs).

Indo-Japan Bilateral Relations

India has received a commitment from Government of Japan for Official Development Assistance (ODA) loan of Yen 218.2 billion (Rs. 11713.32 crores approx.) for FY 2009-2010. With this, the cumulative ODA loan from Government of Japan has reached Yen 3116.80 billion on commitment basis, till 31 March 2005. Notes were exchanged between the Government of India and Government of Japan on October 27, 2009 and March 2010 for the FY 2009 JICA ODA loan package. The details of the projects are as under:

List of projects selected under FY 2009 package

Sl. No.	Name of the Project	Location	Loan amount in Yen Min./ (Crore Approx.)	Date of signing of loan agreement
1.	Dedicated Freight Corridor Project (Phase0I)	Multi-State	2,606/ 130.3	27.10.09
2.	Delhi Mass Rapid Transport System Project Phase 2 (v)	Delhi	33,640/ 1648.36	31.3.2010
3.	Kolkata East-Wet Metro Project (II)	West Bengal	23,402/ 1146.69	31.3.2010
4.	Chennai Metro Project (II)	Tamil Nadu	59,851/ 2932.89	31.3.2010
5.	Dedicated Freight Corridor Project (Phase 1) (II)	Multi-State	90,262/ 4422.83	31.3.2010
6.	Rengali Irrigation Project (III)	Orissa	3,072/ 150.52	31.3.2010
7.	Sikkim Biodiversity Conservation Forest Management Project	Sikkim	5,384/	31.3.2010

Government of Japan provides assistance under Grant Aid and Technical Cooperation Programme. There are 7 ongoing projects under Grant Aid, Technical Cooperation and Development Study Programmes, in the fields of Health, Education, Environment etc. There are 4 ongoing 'Model Projects' in the areas of energy conservation/alternative energy source under Government of Japan's 'Green Aid Plan'. Apart from these, Government of Japan also provides assistance to NGOs for implementation of Projects.

Exchange of Notes were signed between Government of India and Government of Japan concerning the Project for Strengthening of Electronic Media Production Centre in Indira Gandhi National Open University on July 26, 2010 for JPY 787,000.000 under Japanese Grant in Aid Programme.

U.S. Bilateral Relations

US development assistance to India started in 1951 and till March 2010, the total assistance extended to India has been of the order of approximately US \$ 15.50 billion. The assistance mainly comprises development project, food commodities and technical assistance. US assistance is mainly administered through the US Agency for international Development (USAID). The assistance extended by USAID at Present is entirely in the form of grants.

Initially, the main trust of assistance to India was on projects, which were designed to strengthen key institutions and transfer of resources for infrastructure programmes in agriculture and social forestry. Since mid 1980s. the priority has been diversified to include science and technology dimensions focusing specially on the Commercialization of technology. The current four priority areas of development assistance are: economic growth including financial market reforms and state fiscal reforms. health, environment and energy and disaster management. There are 8 ongoing projects supported by USAID in these areas.

During 2009-10, the disbursement of US assistance to bilateral projects in India was to the tune of US \$ 24.72 million and food aid was to the tune at US \$ 11.00 million.

In the year 2009-10 (April 2009 to March-2010), 17 proposals for extension of Government of India supported lines of credit to be routed through the Exim Bank of India have been approved.

INTERNATIONAL MONETARY FUNDS

The International Monetary Fund (IMF) was established along with the International Bank for Reconstruction and Development (also known as World Bank) at the Conference of 44 nations held at Bretton Woods, New Hampshire, USA in July 1944. It was created to promote international monetary cooperation, to facilitate the expansion and balanced growth of international trade; to promote exchange stability; to assist in the establishment of a multilateral system of payments to make its general resources temporarily available to its members experiencing balance of payments difficulties under adequate safeguards; and to shorten the duration and lessen the degree of disequilibria in the international balances of payments of members.

The Articles of Agreement of IMF came into force on December 27, 1945. IMF is the principal International Monetary Institution established to promote a cooperative and stable global monetary framework. At present. 187 nations are members of the IMF. Since the IMF was established, its purposes have remained unchanged but its operations - which involve surveillance, financial assistance and technical assistance - have developed to meet the changing needs of its member countries in an evolving world economy. India is a founder member of the IMF.

India's Quota and Ranking

India's current quota in the IMF is SDR (Special Drawing Rights) 4,158.20 million in the total quota of SDR 213 billion, giving it a share holding to 1.91 per cent. However,

based on voting share, India (together with its constituency countries viz. Bangladesh, Bhutan and Sri Lanka) is ranked 22nd in the list of 24 constituencies. The break-up of SDR 4158.2 million quota of India (July 31, 2010) is given below:

	SDR Million	per cent Quota
Quota	4,158.20	100.00
Fund holdings of currency ¹	3,270.26	78.65
Reserve Position ²	888.06	21.36

¹ IMFs holding of Indian rupees

² Share of a India's quota paid in reserve assets i.e. SDRs or usable currencies

The IMF's Board of Governors on 28 April 2008 endorsed the reforms in quota and voting structure of IMF. This endorsement marks an important milestone in realigning the quota and voting structure of the IMF to reflect the relative economic weights of economies in the world. It marks the first step in a long and protracted struggle by developing countries for a greater say in organizations under the UN umbrella. India has been at the forefront of these initiatives since inception.

The implementation of this decision will result in an increase in the voice and representation of Emerging Market Economics, Developing Countries and Low income Countries. A total of 54 countries, out of a total membership of 187 will see their quota shares increase from pre-Singapore Annual Meeting (2006) levels, ranging from 12 to 106 per cent. Dynamic emerging markets like Korea, Turkey, China, Brazil and India are the main beneficiaries. India's quota will register an increase of 40 per cent of absolute terms and 28 per cent increase in terms of share in global totals.

Overall 135 countries will see an increase in voting shares, reflecting both the increase in quota shares as well as the tripling of basic votes from earlier levels. The aggregate shift in voting shares for these 135 countries is 5.4 percentage points, including substantial increases for low income countries.

India's actual quota share would increase from 1.91 per cent to 2.44 per cent, while its vote share would increase from 1.88 per cent to 2.34 per cent. In the process, India would improve its relative position in both quota and vote shares to the 11th highest (from the present 13th) amongst 187 strong entire membership. In the Indian constituency, Bhutan has received a 167 per cent increase in voting share compared to pre-Singapore levels.

The said quota increase would become effective when three-fifth of the member countries, having 85 per cent of the total voting power, have accepted the proposed "Voice and Participation" Amendment of IMF's Articles. India has already conveyed its acceptance on the proposed Voice and Participated Amendment.

General and Special SDR Allocation by IMF

Under its Articles of Agreement, the IMF may allocate SDRs to members in proportion to their IMF quotas. These members must be participants in the SDR department of the IMF (all Fund members need not necessarily be participants in the SDR department of IMF, although at present all are). There are two kind of allocations.

General allocations have to be based on a long-term global need to supplement existing reserve assets. Although general allocations are considered every five years, the decisions to allocate SDRs have been made only three times :

- The first allocation was for a total amount of SDR 9.3 billion, distributed in 1970-72 in yearly installments.
- The second allocation, for SDR 12.1 billion, was distributed in 1979-81 in yearly instalments.
- The third general allocation was approved on August 7, 2009 for an amount of SDR 161.2 billion and took place on August 28, 2009.

Separately, through the Fourth Amendment of the Articles of Agreement, a special allocation of SDR 21.5 billion was made to enable all members of the IMF to participate in the SDR system on an equitable basis and correct for the fact that countries that joined the Fund after 1981-more than one fifth of the current IMF membership-had never received an SDR allocation. This has entered into force on 10 August 2010.

In view of above, India's NCA (net cumulative allocation) stands at SDR 3,3978.26 million:

- SDR 681.17 million through the first two general allocations;
- SDR 3297.1 million through the third general allocation, and
- SDR 214.6 million through the special allocation.
- Out of the NCA of SDR 3,978.26 million, India currently holds SDR 3,978.26 million as on 31st July 2010, which is 89.86 of its NCA.

Borrowings by India

India borrowed SDR 3.9 billion during the period 1981-84. Again during 1991 to 1993, India borrowed an amount of SDR 3.56 billion (SDR 1351.98 million under the Compensatory and Contingency Financing Facility and SDR 2207.925 million under Standby Arrangement). Repayment of all the loans taken from International Monetary Fund has been completed on May 31, 2000. India is now a contributor to the IMF.

India's contribution to lending resources of IMF

At an April 2, 2009 summit in London of the Group of Twenty (G-20) major industrialized and emerging market economies, world leaders decided to dramatically increase the IMF's lending capacity to support its ability to combat financial contagion, providing significant new financing and a broad mandate for action. As a result, the resources available with IMF to support its members will be tripled to \$750 billion.

In pursuance of decision at the London Summit of the Group of Twenty (G-20) and to increase the lending capacity of IMF, the Finance Minister of India in BRIC Finance Minister's Meeting held at London on 4th September 2009 announced India's decision to invest up to \$UD 10 billion of its reserves in notes issued by the IMF. This commitment under NAB (New Arrangements in Borrow) has now in July 2010 extended upto \$US 14 billion.

Financial Transactions Plan (FTP)

India agreed to participate in the Financial Translation Plan of the IMF in late 2002. Fifty-two countries, including India, now participate in FTP. By participation in FTP India is allowing IMF to encash its rupee holdings as part of its quota contribution for hard currency which is then lent to other member countries who are debtors to the IMF. While the participation in FTP allows India to earn additional interest on its

enhanced credit tranche position with IMF, the encashment of interest free rupee securities lead to perhaps higher borrowing cost as well as deterioration of fiscal position. To address this problem, it has been decided to replace special securities issued to the IMF by non-interest bearing non-marketable securities to be issued to the RBI. From 2002 (when India agreed to participate in the FTP) to 13th July 2009 India has made seventeen purchase transactions of SDRs 1194-16 million and twenty-two repurchase transactions of SDRs 795-95 million.

India's contribution to Iraq

In November 2003, India agreed to contribute US \$ 0.35 Million for the Multi-donor Technical Sub Account for Iraq initiated by the IMF. It has contributed US. \$ 0.10 million (equivalent to ₹ 45,00,000) in March 2006 and the third and final instalment of US \$ 0.15 million (equivalent to ₹ 64,41,750) was paid in March 2007.

Poverty Reduction Growth Facility

Enhanced Structural Adjustment Facility (ESAF) was established in 1987 with an amount of SDR 6 billion to help the low income countries with heavy debt burdens in difficult external environment to implement comprehensive macro-economic and structural policy programmes aiming at strengthening their balance of payments position and fostering growth. ESAF Trust operations are conducted through accounts in the Trust with separate functions designed to administer the capital funding needed for Trust loans (Loans Account), to subsidize the rate of interest paid by borrowers on loans from the Trust (Subsidy Account) and to provide security for lender's claim on the Loan account (reserve account). The funds available under the Scheme were exhausted and IMF Board approved to continue this facility and requested members to contribute generously. Since the year 1999 the name of the Trust has been changed to PRGF Subsidy Account. India preferred to contribute as donations to Subsidy Account and made a commitment to provide grant contributions to the extent of US \$ 1 million per year over 15 year for a total of US \$ 15 million. India has paid fifteenth / last annual instalment to the Fund PRGF Trust Subsidy Account amounting to US \$ 1 million (equivalent to ₹ 4,25,60,000) during July, 2008.

Emergency Natural Disaster Assistance (ENDA)

The Executive Board of the IMF, on 21.1.2005, has approved opening of a sub-account by expanding the scope of their administered account for Emergency Post Conflict Assistance (EPCA) to subsidize the rate of charge on emergency purchases in cases of Emergency Natural Disaster Assistance (ENDA) to PRGF eligible member countries. IMF has targeted resource mobilization through grant contributions by members to be in the range of SDR 45 to 60 million. These grant contributions will be used by IMF to subsidize the rate of charge to 0.5 per cent per annum on emergency natural disaster assistance, at the same rate as is being charged by IMF for loans under PGRF lending facility for low income countries.

India has originally agreed (in March 15, 2005), to contribute up to SDRs 1.5 million over the next five years to support the Fund's efforts to Emergency Natural Disaster Assistance (ENFA), for the PRGF eligible member countries. Accordingly, India paid an amount of ₹ 1,86, 07, 305 (i.e. equivalent to SDR 300000) towards India's first annual contribution to ENDA facility of IMF in January 2008. Subsequently on receipt of request from the IMF, the matter has been reconsidered and accordingly

India made the payment of remaining committed amount of SDR 1.2 million in two instalments of SDR 600,000 each by December 2009. In view of this, India paid an amount of ₹ 4,42,08,665 (i.e. equivalent to SDR 60,000 at the rate of ₹ 1=SDR 0.013752) towards India's second contribution to emergency Natural Disaster Assistance Facility of IMF in February 2010.

Heavily Indebted Poor Countries [(HIPC / Multilateral Debt Relief Initiative (MDRI).]

The Multilateral Debt Relief Initiative (MDRI) provides for 100 per cent relief on eligible debt from three multilateral Institutions, viz. the IMF, the International Development Association (IDA) of the World Bank, and the African Development Fund (AIDF) to a group of low-income countries. In June 2005, the Group of 8 (G-8) major industrial countries proposed that three multilateral institutions-the IMF, the International Development Association (IDA) of the World Bank, and the African Development Fund (AfDF) - cancel 100 per cent of their debt claims on countries that have reached, or will eventually reach, the completion point under the IMF-World Bank Heavily Indebted Poor Countries (HIPC) Initiative. The HIPC Initiative entailed coordinated action by multilateral organizations and governments to reduce to sustainable levels the external debt burdens of the most heavily indebted poor countries. The Initiative is intended to help them advance towards the United Nations' Millennium Development Goals (MDGs), which are focused on halving poverty by 2015.

At the IMF, it was agreed that all countries with per-capita income of US \$ 380 a year or less (HIPCs and non-HIPCs) will receive MDRI debt relief financed by the IMF's own resources. HIPCs with per capita income above that threshold will receive MDRI relief from bilateral contributions administered by the IMF, India enclosed Multilateral Debt Relief Initiative (MDRI) in September 2005. Under the HIPC initiative, India has given debt relief to the tune of ₹ 120.08 crores to seven HIPCs (viz. Guyana, Mosambique, Nicaragua, Tanzania, Uganda, Zambia and Ghana).

Article IV Consultations

Under Article IV of the IMF's Articles of Agreement the IMF holds bilateral discussions with members usually every year, to review the economic status of the member countries, Article IV consultations are generally held in two phases. During the exercise the IMF mission holds discussions with the RBI and various line Ministries /Departments of Central Government. The Article IV Consultations are concluded with a meeting of IMF Executive Board at Washington DC which discusses the Article IV Report., The last round of Annual Article IV Consultations with the IMF Staff were held during 7-17 December 2009. The Article IV report on India, prepared by IMF Mission, was subsequently discussed at the IMF Executive Board on 25 January 2010. The report was finally published on 16 March 2010.

Regional Training Centre

In July 2004, the Government of India approved IMF's proposal for setting up a joint training program at the National Institute of Bank Management, Pune. The Training Program will provide policy oriented training in economics and related operational fields to Indian officials and officials of countries in South Asia and East Africa. The first training program was held during July 2006. RBI is the nodal body to co-ordinate

the training program with the IMF. The Institute caters to participants from regional countries, especially in the SAARC region. Australia is providing financial assistance to the Institute.

WORLD BANK

World Bank lending to India

India has been borrowing from the World Bank through International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA) for various development projects in the areas of poverty reduction, infrastructure, rural development, etc. IDA funds are one of the most concessional external loans for Government of India and are used largely in social sector projects that contribute to the achievement of Millennium Development Goals. IBRD funds are relatively costlier but cheaper than commercial external borrowings. The Government of India utilizes IBRD loans primarily for infrastructure projects. However, sometimes a blend of IDA credits and IBRD loans is also used. India has borrowed around US \$ 83.12 billion from the World Bank so far (July 2010). IDA credits are repayable in 35 years including an initial grace period of 10 years and carry no interest charge. However, a service charge at the rate of 0.75 per cent per annum is levied on loan amounts outstanding.

INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT (IFAD)

International Fund for Agricultural Development (IFAD) was set up in 1977 as the 13th specialized agency of the United Nations. 165 countries are members of the IFAD and these are grouped into three lists: List - A: developed Countries, List - B: Oil Producing Countries and List - C: Developing Countries. India is in List - C; IFAD is headed by an elected President and has Governing Council and an Executive Board.

India is one of the original members of the IFAD. Since inception, India has contributed US \$ 88.0 million towards the resources of IFAD. India had pledged to contribute an amount of US\$ 25.0 million to the 8th Replenishment of the IFAD's resources and has paid US\$ 9.0 million in December 2009 as first instalment of the 8th Replenishment. The second and third instalments of US \$ 8.0 million each will be paid in FY 2010-11 and 2011-12 respectively.

Upto 30 June 2010, IFAD has assisted in 24 projects in the agriculture, rural development, tribal development, women's empowerment, natural resources management and rural finance sector with the commitment of US\$ 656.4 million (approx.) Out of these, 15 projects have already been closed. Presently, nine projects with a total assistance of US\$ 274.35 million are under implementation.

IFAD loans are repayable over a period of 40 years including a grace period of ten years and carry no interest charges. However, a service charge at the rate of three-fourths of one per cent (0.75 per cent) per annum is levied on loan amounts outstanding.

ASIAN DEVELOPMENT BANK (ADB)

The Asian Development Bank (ADB) an interational Partnership of 67 member countries was established in 1966 with its headquarters at Manila, Philippines. India is a founder member. The Bank is engaged in promoting economic and social progress of its developing member countries in the Asia and the Pacific region. Its principal functions are as follows:

(i) to make loans and equity investments for the economic and social advancement of its developing member countries; (ii) to provide Technical Assistance (TA) for the preparation and execution of development projects and programs and advisory services; (iii) to respond to the requests for assistance in coordinating development policies and plans in developing member countries; and (iv) respond to the requests for assistance coordinating development policies and plans of developing member countries.

India's subscription to the Bank's capital stock was 6.317 per cent with a voting power of 5.352 per cent and voting power among regional members is 8.229 per cent.

India started borrowing from ADB's Ordinary Capital Resources (OCR) in 1986. During calendar Year 2009, ADB Board approved loans of US \$ 1711 million for fifteen loans to India.

The Bank's lending has been mainly in the Energy, Transport and Communications, Finance, Industry, Social/Urban Infrastructure, Multi-Sector, Agriculture and Irrigation Sectors. As of 31.3.2010, the Bank had cumulatively approved 128 public sector loans and one grant to India amounting to US \$ 20,8885.2 million and US \$ 100 million respectively. As of 31.3.2010, the ADB portfolio includes 52 loans with a net loan amount of US \$ 8.4 billion.

As of 31 March 2010, 64 Technical Assistance (TAs) amounting to approximately US \$ 70.4 million are going on in different sectors in the country. ADB also provided a special grant of \$ 100 million for Tsunami and 3 JFPRs (Japan Fund for Poverty Reduction) for \$ 10.3 million were provided as emergency relief to the States of Tamil Nadu and Kerala. The technical assistance provided include support for institutional strengthening, effective project implementation and policy reforms as well as for Project preparation.

India holds the position of Executive Director on the Board of Directors of the Bank - its Constituency comprises Afghanistan, Bangladesh, Bhutan, India, Lao PDR, Tajikistan and Turkmenistan. The Finance Minister is India's Governor on the Board of Governors of Asian Development Bank and Finance Secretary is the Alternative Governor.

UNDP Programmes in India

The United Nations Development Programme (UNDP) is the largest channel for development cooperation in the UN System. It has been India's partner in development since 1951. The overall mission of the UNDP is to assist the programme countries through capacity development in Sustainable Human Development (SHD) with priority on poverty alleviation, gender equity, women empowerment and environmental protection. The UNDP sees SHD as an integrated, multi-disciplinary, holistic process for development, which is people-centred, participatory and environmentally sound. SHD stresses economic growth with equitable distribution, equitable distribution, enhancement of people's capabilities and enlargement of their choices.

The UNDP has field offices worldwide. The India Office is located in New Delhi. The UNDP derives its funds from voluntary contributions from various donor countries. These contributions are made separately to the UNDP Core and to Non-core funds. Core resources are 'non earmarked' allocations from the UNDP headquarters that are

available for a country programme and form the bedrock of the UNDP's neutrality, impartiality and truly multilateral character. Non-core funds are mobilized by the UNDP Country Office for specific programmes/activities from donors. Non-core resources are 'earmarked' funds given by the donors for specific themes and regions. All assistance provided by the UNDP is grant assistance.

India's annual contribution to the UNDP has been to the extent of US\$ 4.5 million, which is one of the largest from developing countries. Over and above its annual contribution, the GOI also pays for the expenditure of the Local Office. Given that total external aid contributes only modestly to India's annual plan outlay, the primary benefits that accrue from the UNDP's activities are not in the quantum of monetary contribution but through intangibles such as:

- Capacity enhancement of development agencies in India through the introduction of international best practices;
- Rigour and discipline of programme implementation; and
- Pilot programmes in greenfield activities that can be later replicated through other assistance .

Country Cooperation Framework (CCF)

The country-specific allocation of UNDP resources is made every five years under the Country Cooperation Framework (CCF) which usually synchronizes with India's five-year plans. The resource allocation criteria takes into account factors such as population and per capita Gross National Product (GNP).

The last CCF (CCF-II) synchronized with 10th Five-year Plan (2003-07) and focused on thematic areas (i) promoting human development and gender equality, (ii) capacity-building for decentralization, (iii) poverty eradication and sustainable livelihoods and (iv) vulnerability reduction and environment sustainability. The total resource base of CCF-II was US\$ 190 million, of which core resources were US\$ 93 million. Projects worth US\$ 115 million approx. were approved.

New Country Programme

The new Country Programme Document (CPD): 2008-12, since adopted in the UNDP Executive Board Meeting held in New York in September, 2007, is based on the United Nations Development Assistance Framework (UNDAF) goal on 'promoting social, economic and political inclusion for the most disadvantaged, especially women and girls'. The document has been formulated by the GOI in partnership with the UNDP Country Office and is in harmony with the 11th Plan's thrust on inclusive growth. The document is effective from 1 January 2008 and will remain in force till 31 December 2012.

The new country programme will primarily concentrate on the UNDAF foals, namely, democratic governance, poverty reduction, HIV and development, disaster risk management and energy and environment. Further, it will focus on seven states that are economically laggard; Bihar; Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh.

The total resource requirement for the new country programme is estimated at US\$ 200-250 million, out of which one-third would be Core, one-third Non-core, and one-third mobilized from UN Trust Funds, etc.

As per UNDP new programme guidelines, the Country Programme document formulation is the first step in the country programme formulation process, followed by the Country Programme Action Plan (CPAP) and the elaboration of an Annual Work Plan (AWP). The CPAP and AWP are delineated from the agreed CP document.

CPAP, which basically specifies the management arrangements for the implementation of this programme, is a legal agreement between the host government and UNDP to execute the Country Programme; and AWP, which are also part of the CPAP, are legal agreements between UNDP and the implementing Partners (Line Ministries/State Governments, NGOs/CSOs) to implement a specific project within a calendar year as identified in the CPAP.

India-EU Macroeconomic and Financial Dialogue

India had participated in the India-EU Macroeconomic and Financial dialogue which was concluded on 8-9 July, 2010 at Brussels, Belgium, EU appreciated India's participation in the forums of international cooperation like G20 and FSB and the need for stabilization of flow of capital for emerging economies. The dialogue covered issues related to hedge funds to disclose information to regulators including risk management, improvement of quality and quantity of capital in banking reforms, risk management in Financial Institutions through empowerment of shareholders, etc. India emphasized the need for repair of credit markets in developed countries and that the financial markets should serve the needs of the real sector and simultaneously ensure growth in goods and services. India also expressed concern on the Issue of globalization through increased cost of capital through increased regulation and the 'one-size-fits-all' approach.

India informed that the banking reforms initiated in 1990s focused on reducing regulatory pre-emption of funds, freeing interest rates and introducing income recognition and asset classification norms. The Public Sector banks account for more than 70 per cent of the total banking business and the PSBs have fared very well during the crisis since they were well regulated. As far as growth is concerned in India, the impact of the slowdown was short lived. IMF forecast is showing growth of 9.4 per cent for 2010-11. The important part is the speed of the global economy, the reaction of the markets to the sovereign, the high level of inflation at 9.5 per cent in contrast with the deflation in some of the countries across the world due to the structural problem on the supply side etc. On the issue of capital inflows, The growth in India has picked up because of increase in external demand which increased by almost 35 per cent from last year.

In conclusion, both India and EU agreed on the need to implement the reforms to boost the potential growth. Though there exists different challenges, there also exists common issues of fiscal exit strategy, for EU has a reign in fiscal deficit and decrease the sovereign risk in a credible way which is growth friendly. On financial side there exists need for transparency like Stress test being done for banks in EU. While India agreed that the growth in India is on the right trajectory, but other non-growth issue also need to be looked after.

SOCIAL SECTOR

Employment

Employment in establishments covered by Employment Market Information System of the Ministry of Labour and Employment grew at 1.20 per cent per annum during

1983-1994 but decelerated to 0.03 per cent per annum during 1994-2007. The latter decline was mainly due to a decrease in employment in public sector establishments from 1.53 per cent per annum in earlier period to 0.57 per cent per annum in the later period, whereas the private sector had shown acceleration in the pace of growth in employment from 0.44 per cent to 1.30 per cent per annum. Latest available data indicates public sector employment having declined by 1.8 per cent in 2008 as compared to 2007 while the private sector employment increased by 6.5 per cent. Total increase in the employment was 1 per cent.

The sixth Quarterly Quick Employment Survey by Labour Bureau, Ministry of Labour and Employment, launched and completed in the month of April, 2010 to assess the impact of economic slowdown on employment in India is based on the employment data collected for the period between January-March, 2010. A total of 2,816 sample units have been covered during the survey in eight selected sectors viz. textiles, leather, metals, automobiles, gems and jewellery, transport, IT/BPO and handloom/ powerloom. The findings are summarized below:

- At overall level (all sectors covered) employment has increased by 0.61 lakh in March 2010 over December, 2009.
- In textile sector the employment has declined by 1.19 lakh during the period March, 2010 over December, 2009.
- In the exporting units the employment has increased by 1.87 lakh during the period March, 2010 over Dec. 2009; however in the non-exporting units it has declined by 1.25 lakh during the same period.
- An analysis of changes in employment that took place during the quarters falling in the financial year 2009-10 (i.e. March 2010 over March 2009) indicates that the overall employment in the eight selected sectors covered in the quarterly surveys has increased by 10.66 lakh during this period.

The Mahatma Gandhi National Rural Employment Guarantee Scheme/ MGNREGS)

NREGS has been provided a sum of Rs. 40,100 crore in the budget of current financial year, 2010-11. During the year 2009-10, 5.25 crore households had been provided employment under the scheme as against more than 4.51 crore households provided employment during the year 2008-09. Out of the 283.32 crore person-days created under the scheme during this period, 30 per cent and 21 per cent were in favour of SC and ST population, respectively and 49 per cent of the total person-days created went in favour of women. During 2010-11, so far (17.8.2010), 1.79 crore households have been provided employment under the Scheme. 43.91 crore person-days have been created of which 21.44 per cent and 19.87 per cent were in favour of SC and ST population. 50 per cent of the Total person days went in favour of women.

Rashtriya Swasthya Bima Yojana (RSBY)

RSBY started rolling from 1 April 2008. Coverage extends to five members of the family which includes the head of household, spouse and up to three dependents. Beneficiaries need to pay only ₹ 30/- as registration fee while Central and State Government pays the premium to the insurer selected by the State Government on the basis of a competitive bidding. The scheme has a provision of issues of smart card to its beneficiaries to enable cashless transactions for health care. More than 1.83 crore Smart Cards have been issued as on 16 August 2010.

Trade Unit

During 2010-11 (April-July), exports were valued at US \$ 68,629 million, which was 30.1 per cent higher than the level of US \$ 52,737 million in 2009-10 (April-July). Export growth in July 2010 has increased to 13.2 per cent compared to (-) 24.6 per cent in July 2009. Export growth rate is positive from November 2009 onwards.

Imports during 2010-11 (April-July), were valued at US \$ 1.12.214 million, which was 33.3 per cent higher than the level of US \$ 84.156 million in 2009-10 (April-July). Import growth in July 2010 increased to 34.3 per cent compared to (-) 31.3 per cent registered in July 2009. Petroleum, Oils and Lubricants (POL) imports during 2010-11 (April-July) were valued at US \$ 32,941 million, which was 37.3 per cent higher than the level of US \$ 23,993 million in 2009-10 (April-July). POL imports growth in July 2010 increased by 4.4 per cent due to normalized price behaviour of crude oil Non-POL. Imports during 2010-11 (April July) were valued at US \$ 79.273 million, which was 31.8 per cent higher than the level of US \$ 60,163 million in 2009-10 (April-July).

Trade Deficit for 2010-11 (April-July) was valued at US \$ 43,585 million which was 38.7 per cent higher than the level of US \$ 31,420 million in 2009-10 (April-July)

Inflation

Wholesale Price Index (WPI 2004-05=100); Year-on-year Information measured in terms of WPI for August. 2010 was at 8.51 per cent. This reflects a sharp decline of 127 basis points compared to WPI Inflation in July, 2010. (inflation was 0.31 per cent in August, 2009 and 11.22 per cent in August, 2008). In new series, inflation had remained in the negative zone in June 2009 and July 2009 and turned positive in August 2009 thereafter it reached to double digit in March, 2010. The average initiation rate for last 12 months (September 2009 to August 2010) was 7.89 per cent as compared to 3.89 per cent last year during September 2008 to August 2009. In case of financial year change, it has recorded 3.31 per cent in August 2010, which is lower than 4.95 per cent last year, Sectorial inflation rate is indicated in Table 1 below:

Table 1 : Current price situation based on monthly Wholesale Price Index (Base : 2004-05)

Items/Groups	Weight (%)	Percent variation during					
		Cumulative change from March In August		Inflation (Year-on-year) In August		Inflation (Average of last 12 months) In August	
		2009-10	2010-11	2009-10	2010-11	2009-10	2010-11
All Commodities	100.0	4.95	3.31	0.31	8.51	3.89	7.69
1.Primary articles	22.02	12.59	6.69	9.84	15.76	8.96	17.81
2. Fuel and Power group	14.23	6.82	5.64	-9.68	12.55	1.01	6.87
3.Manufactured Products	63.75	1.68	1.27	-0.33	4.78	2.89	4.17

Consumer price Index: Year-on-year inflation in Consumer Price index for Industrial Workers (CPI-IW) has declined to 11.25 per cent in July, 2010 from its peak of 16.22 per cent in January, 2010. This declaration in CPI-IW inflation is due to continuous

decline in food inflation and higher statistical base of last year (table-2). On the other hand, rising trend in consumer prices still continues which reflects in CPI-IW.

Public Private Partnerships

Provision of quality infrastructure is a pre-requisite for the economy to achieve a higher growth trajectory on a sustained basis. Planning Commission has estimated that the total investment in infrastructure has to increase from 4.5 per cent to around 8 per cent of the GDP in the 11th Five Year Plan'. The investment requirements are enormous and are not likely to be met from the public sector alone. Attracting private capital to this critical sector is acknowledged as a key to meet the resource deficit. Consequently, Public Private Partnership (PPPs) are being encouraged as the preferred mode for execution and operation of infrastructure projects.

In addition to freeing Government resources to expand investments in other sectors. PPPs bring in private sector expertise and efficiencies in operation and maintenance leading to increase in quality of public services delivered.

Government of India's Initiatives

The Government is actively pursuing PPPs to bridge the Infrastructure deficit in the country and to address the identified constraints. Several initiatives like viability gap funding, Public Private Partnership Appraisal Committee (PPPAC) and India Infrastructure Finance Company Ltd. (IIFCL) have been taken during the last few years to promote the PPPs in sector like power, ports, highways, airports, tourism and urban infrastructure.

The appraisal mechanism for the PPP projects has been streamlined to ensure speedy appraisal of projects, eliminate delays, adopt international best practices and have uniformity in appraisal mechanism and guidelines. The appraisal mechanism notified includes setting up of the Public Private Partnership Appraisal Committee (PPPAC) responsible for the appraisal of PPP projects in the Central Sector. Since its constitution in January 2006, PPPAC has granted in-principle / final approval to one hundred and ninety six projects, with a total project cost of 188,985.55 crore.

There are some areas in infrastructure where the externalities caused by projects cannot be captured by project revenues alone. Such projects, which are marginally viable or unviable can be made financially attractive through a grant. The Government has created a Viability Gap Funding arrangement for such projects in the infrastructure sector. So far under the Viability Gap Funding Scheme, 65 proposals have been granted in principle approval with a total project cost of 41612.35 crore and an estimated viability gap funding of 8233.28 crore.

India Infrastructure Finance Company Limited (IIFCL) has been set-up with the specific mandate to play a catalytic role in the Infrastructure sector by providing long-term debt for financing infrastructure projects. IIFCL funds viable infrastructure projects through Long Term Debt, refinance to Banks and Financial Institutions for loans granted by them, with tenor exceeding 10 years or any other mode approved by the Government. So far, term loan, amounting to 27190.36 crore, for 155 infrastructure projects (with a total project cost of 229135.22 crore) have been sanctioned, of which 102 (Total Project Cost of 160219.02 crore; loan amounting to 20014.50 crore) are PPP projects.

¹ Approach Paper to the Eleventh Five Year Plan

A panel of eleven Transaction Advisers to PPPs has been notified for use by the States and other entities. This panel is available to all sponsoring authorities including central, state and municipal governments and their agencies who are undertaking PPP transactions. Panel members, have skills and experience to provide both commercial financial and legal services in support of PPP transactions. The process of renewal of panel of Transaction Advisers is in progress.

Department of Economic Affairs, in collaboration with the Asian Development Bank initiated the **PPP Pilot Projects Initiatives** where the process of structuring the PPP Project is hand held by the Central Government to develop demonstrable PPP Projects in challenging sectors. 30 projects in various states, municipalities and Central Ministries level have been identified and are being thus developed, encompassing sectors such as rural secondary education, Elementary education, Greenfield hospital, and diagnostic centers, water supply and sanitation, affordable housing, training centres, rural infrastructure, etc.

The Government is also providing assistance in the form of providing **Professional assistance to the PPP Cells** of the selected States and Central Ministries. The primary objective is effective institutionalization of the PPP cells through provision of in-house consultancy services in the form of PPP Expert and MIS Expert (Financial Expert in the case of Central Ministries) for a period of three years to enable them to implement PPP schemes effectively and efficiently at the Centre and State level.

An **online database** www.pppindia.database.com on PPP projects in the country has been developed. The purpose of the database is to provide comprehensive and current information on the status and extent of PPP initiatives in India at the central, state and sectoral level. In addition, a national level PPP Capacity Building programme, to be delivered through State and Central Training Institutes is being developed; PPP Toolkits are being finalised for various infrastructure sectors, a Communication Strategy for PPPs is being developed for roll out; and risk and contingent liability frameworks are being established. All these initiatives are likely to enhance the quality of PPP projects which are structured and also accelerate the pace with which they are brought to the market.

Furthermore, many State Governments have institutionalized various measures to encourage private sector engagement in creation of infrastructure and delivery of services. Infrastructure Development and Enabling Acts for development of infrastructure projects have been developed by states of Andhra Pradesh, Bihar, Gujarat and Punjab. PPP policies and guidelines to facilitate PPP projects (and avail of the GOI interventions such as Viability Gap Funding and Indian Infrastructure Projects Development Fund) have been notified by Karnataka, Orissa, Assam, Goa and Madhya Pradesh. Other measures include development of sectoral policies for promoting PPPs in roads, ports, energy, IT, Tourism etc. establishing nodal Departments/PPP Cells to facilitate and scale up PPPs, establishing Viability Gap Funds to provide state share of grants to PPP projects (to supplement VGF provided by GOI), establishing Project Development of Fund (to supplement GOI grant under IIPDF) and establishing panels of Transaction Advisers and developing standardized bid documents, sectoral templates, handbooks on PPPs and guidelines for appointment of Transaction. Advisers, Awareness of schemes, guidelines, initiatives and resource materials prepared are being created through the website for PPPs.²

The details of these initiatives are available at the national website on PPPs www.pppinindia.com which gives necessary information on that is a one that is a one stop site for all information relating to PPP initiatives in India. These measures have resulted in a robust pipeline of over 600 projects in diverse sectors.

For providing financial support for quality project development activities to the States and the Central Ministries a corpus fund titled 'India Infrastructure Project Development fund' (IIPDF) with initial budgetary outlay of 100 crore is being set up. It would be a revolving fund that would get replenished through the refund of 'investment' through success fee earned from successful bid projects. In case of need, it can be topped up in subsequent years through budget support. The IIPDF would contribute up to 75 per cent of the project development expenses. The IIPDF contribution would be in the form of interest free loan. On successful completion of the bidding process, the project development expenditure would be recovered from the successful bidder. However, in the case of failure of the bid, the loan would be converted into grant. So far 34 proposals have been granted approval with IIPDF assistance of 3296.08 lakhs and 974.82 lakhs have so far been disbursed.

VIABILITY GAP FUNDING SCHEME

Infrastructure projects are often not commercially viable on account of having substantial sunk investment and low returns. However, they continue to be economically essential. Accordingly, the Viability Gap Funding Scheme has been formulated which provides financial support in the form of grants, one time or deferred, to infrastructure projects undertaken through public private partnerships with a view to make them commercially viable. The Scheme provides total Viability Gap Funding up to twenty per cent of the total project cost. The Government of statutory entity that owns the project may, if it so decides, provides additional grants out of its budget up to further twenty per cent of the total project cost. Viability Gap Funding under the Scheme is normally in the form of a capital grant at the stage of project construction. The Scheme requires the project authorities to seek 'in-principle' approval of the Empowered Institution/Empowered Committee prior to seeking bids and obtain the final approval after the selection of the bidder.

The PPP projects may be posed by the Central Ministries, State Governments or Statutory Authorities (like Municipal Authorities and Councils) which own the underlying assets. To be eligible for financing under the scheme, the PPP project should be implemented, i.e. developed, financed, constructed, maintained and operated for the Project term by a Private Sector Company to be selected by the Government or a statutory entity through a transparent and open competitive bidding process. The criterion for bidding should be the amount of viability gap funding required by the Private Sector company for implementing the project where all other parameters are comparable. The project should provide a service against payment of a pre-determined tariff or user charge. This scheme will apply only if the contract concession is awarded in favour of a private sector company in which 51 per cent or more of the subscribed and paid up equity is owned and controlled by its private entity. The approval to projects is given prior to invitation or bids and actual

² Orissa- www.ppporissa.gov.in; Rajasthan- ppp.rajasthan.gov.in; Uttarakhand - cell.upppc.org; Andhra Pradesh- www.ppp.ap.gov.in; Assam- www.assampp.gov.in; Bihar- www.biada.in; Gujarat- www.gidb.org/; Karnataka- www.idd.kar.nic.in; Maharashtra- www.muidel.com; www.pppinmaharashtra.com

disbursement taken place once the private entity has expended his portion of the equity and the final VGF is determined through the bidding.

The sectors eligible under the scheme are roads and bridges, railways, seaports, airports, inland waterways, power, urban transport, water supply, sewerage, solid waste management and other physical infrastructure in urban areas, infrastructure projects in Special Economic Zones, International convention centres and other tourism infrastructure projects. The Empowered committee may, with approval of the Finance Minister, add or delete sectors/sub-sectors from the aforesaid list.

So far, under the Viability Gap Funding Scheme, 65 proposals have been granted 'in-principle/final approval' approval with a total project cost of ₹ 41612.35 crore and an estimated viability gap funding of ₹ 8233.28 crore.

INDIA INFRASTRUCTURE PROJECT DEVELOPMENT FUND (IIPDF)

Project development has been identified as a key area of attention to enable creation of a shelf of bankable infrastructure projects that can be bid out in the Public Private Partnership (PPP) mode. The fund titled 'India Infrastructure Project Development Fund' (IIPDF) is, therefore, being set-up in Department of Economic Affairs with an initial budgetary outlay of 100 crore for supporting quality project development activities to enable Sponsoring Authority to source funding to cover a portion of the PPP transaction costs, thereby reducing the impact of costs related to procurement on their budgets.

The objectives are:

- (i) The IIPDF will be available to the Sponsoring Authorities for PPP projects for the purpose of meeting the project development costs which may include the expenses incurred by the Sponsoring Authority in respect of feasibility studies, environment impact studies, financial structuring, legal reviews and development of project documentation, including concession agreement, commercial assessment studies (including traffic studies, demand assessment, capacity to pay assessment) etc. required for achieving Technical Close of such projects, on individual or turnkey basis but would not include expenses incurred by the Sponsoring Authority on its own staff.
- (ii) The Sponsoring Authority will, be able to source funding to cover a portion of the PPP transaction costs, thereby reducing the impact of costs related to procurement on their budgets.

The eligibility conditions are:

- The proposals for assistance under the Scheme would be sponsored by Central Government Ministries/Departments, State Governments, Municipal or Local Bodies or any other statutory authority.
- To seek financial assistance from the IIPDF, it would be necessary for the Sponsoring Authority to create and empower a PPP Cell to not only undertake PPP project development activities but also address larger policy and regulatory issues to enlarge the number of PPP projects in Sponsoring Authorities shelf.
- The IIPDF will finance an appropriate portion of the transaction advisor costs on a PPP project where such transaction advisors are appointed by the Sponsoring Authority through a transparent system of procurement under a contract for services.

The IIPDF will contribute upto 75 per cent of the project development expenses to the Sponsoring Authority as an interest free loan. The balance 25 per cent will be co-funded by the Sponsoring Authority. On successful completion of the bidding process, the project development expenditure would be recovered from the successful bidder. However, in the case of failure of the bid, the loan would be converted into grant. In case the Sponsoring Authority does not conclude the bidding process for some reason, the entire amount contributed would be refunded to the IIPDF. So far 34 proposals have been granted approval with IIPDF assistance of 3296.08 lakhs and 974.82 lakhs has been disbursed so far.

BANKING

The first bank of limited liability managed by Indians was Oudh Commercial Bank founded in 1881. Subsequently, Punjab National Bank was established in 1894. Swadeshi movement, which began in 1906, encouraged the formation of a number of commercial banks. Banking crisis during 1913 -1917 and failure of 588 banks in various parts of the country during the decade ended 1949 underlined the need for regulating and controlling commercial banks. The Banking Companies Act was passed in February 1949, which was subsequently amended to read as Banking Regulation Act, 1949. This Act provided the legal framework for regulation of the banking system in India.

The largest bank - Imperial Bank of India - was nationalised in 1955 and renamed as State Bank of India, followed by formation of its 7 Associate Banks in 1959. With a view to bringing commercial banks into the mainstream of economic development with definite social obligations and objectives, the Government of India issued an ordinance on 19 July 1969 acquiring ownership and control of 14 major banks in the country. Six more commercial banks were nationalised from 15 April 1980.

As certain rigidities and weaknesses were found to have developed in the banking system during the late eighties, the Government of India felt that these had to be addressed to enable the financial system to play its role in ushering in a more efficient and competitive economy. Accordingly, a high-level Committee on the Financial System (CFS) was set up on 14 August 1991 to examine all aspects relating to the structure, organization, functions and procedures of the financial systems. Based on the recommendations of the Committee (Chairman: Shri M.Narasimham), a comprehensive reform of the banking system was introduced in 1992-93.

To review the record of implementation of financial system reforms recommended in 1991 by the Committee on Financial System and chart the path of reforms in the years ahead, a high-level Committee on Banking Sector Reforms, under the Chairmanship of Shri M.Narasimham was constituted by the Government of India in December 1997. The Committee submitted its report in April 1998. Some of the recommendations of the Committee, on prudential norms, Capital Adequacy Ratio, classification of Government guaranteed advances, provisioning requirements on standard advances and more disclosures in the Balance Sheets of banks were accepted and implemented. Recent major initiatives undertaken for strengthening the financial sector in pursuance to the recommendations of the above Committee relate to guidelines to banks on Asset-Liability Management and integrated risk management systems, compliance with Accounting Standards, consolidated accounting and supervision, fine-tuning of prudential norms for income recognition,

asset classification and provisioning for NPAs, etc. The guidelines on setting-up of Off-shore Banking Units in Special Economic Zones, Fair Practices Code for Lenders, Corporate Governance, Anti-Money Laundering measures, Know Your Customer (KYC) norms, Corporate Debt Restructuring (CDR) derivatives, guidance notes on Credit Risk, Market Risk, Operational Risk, etc., are other important developments introduced in the banking sector in recent years. RBI has also issued revised guidelines on migration to Basel II Framework on Capital Adequacy. The Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 has facilitated NPA management by banks more effectively.

In 1993, in recognition of the need to introduce greater competition, new private sector banks were allowed to be set up. Licenses were issued to 10 banks which had satisfied the necessary regulatory requirements. Subsequently in 2001, fresh guidelines for setting up new private sector were issued and two banks were issued license under those guidelines.

A draft comprehensive policy framework for ownership and governance in private sector banks was put in the public domain on 2 July 2004 for discussion and feedback. After taking into consideration the feedback received from all concerned and in consultation with Government of India, RBI issued detailed Guidelines on ownership and governance in private sector banks on 28 February 2005. The underlying principles of the guidelines *inter alia* are to ensure that the all banks in the private sector have a networth of ₹ 300 crore, ultimate ownership and control of private sector banks is well diversified, important shareholders (i.e., shareholding of 5 per cent and above) conform to the 'fit and proper' criteria. The directors and the CEO who manage the affairs of the bank should also satisfy the 'fit and proper' criteria. The guidelines also provide for restrictions on cross holding of 5 per cent above by one bank/Financial Institution (FI) in another bank/FI and observance of sound corporate governance principles.

On a review of corporate governance practices in Banks in 2007, RBI advised banks in private sector to ensure that their Memorandum and Articles of Association conform to the above mentioned stipulations. Banks in private sector were also advised to split the posts of Chairman/MD/CEO and have a part time Chairman of the Board of Directors and a separate Chief Executive Officer/Managing Director who would be responsible for day-to-day management/activities of the bank.

Reserve Bank of India issued guidelines on May 11, 2005 for merger/amalgamation of private sector banks for consolidation in the banking sector. The guidelines are application where the merger takes place between two banking companies or between a banking company and a non-banking financial company.

RESERVE BANK OF INDIA

The Reserve Bank of India (RBI) was established under the Reserve Bank of India Act, 1934 on 1 April 1935 and nationalised on 1 January 1949. The Bank is the sole authority for issue of currency in India other than one-rupee coins and subsidiary coins. As the agent of the Central Government, the Reserve Bank undertakes distribution of one-rupee coin as well as small coins issued by the Government of India. It acts as banker to the Central Government, and State Governments by virtue of agreements entered into with them. It also handles the borrowing programme of the Central and State Governments. It formulates and administers monetary policy with a view to ensuring price stability while promoting growth in the real sector

through proper deployment of credit. It plays an important role in maintaining and managing the country's foreign exchange reserves and ensures orderly conditions in the foreign exchange market. It also acts as an agent of the Government of the India in respect of India's membership of International Monetary Fund. It regulates and supervises commercial banks, Urban Co-operative Banks, Non-banking Financial Companies (NBFCs) and select All India Financial Institutions. It also performs a variety of developmental and promotional functions. Recently, it has taken a lot of measures / initiatives in promoting financial stability, financial inclusion and financial literacy in the country as a whole. The RBI celebrated its Platinum Jubilee in the year 2009-10 and initiated its outreach programme to make its presence felt in a more effective and broad-based manner amongst the members of the general public.

Composition of Banking System

The Indian banking system consists of commercial banks both in public and private sector, Regional Rural Banks (RRBs) and cooperative banks. As on June 30, 2009, Commercial Banking system in India consisted of 171 Scheduled Commercial Banks out of which 113 were in public sector, including 86 RRBs. The remaining 27 banks, other than RRBs, in the public sector consist of 19 nationalized banks, 7 banks in SBI group and IDBI Bank Ltd. Public sector banks (excluding RRBs) accounted for about 76.6 per cent of the deposits of all scheduled commercial banks.

Amongst the public sector banks, the nationalised banks (including IDBI Ltd.) group is the biggest unit with 33,095 offices, deposits aggregating ₹ 19,93,305 crore and advances of ₹ 14,17,121 crore as on 30th June 2009. The State Bank of India group (SBI and its six Associates) with 16,260 offices, deposit aggregating ₹ 10,07,042 crore and advances ₹ 7,39,606 crore was the second largest.

Nationalised banks as a group, accounted for more than one-half (50.9 per cent) of the aggregate deposits, while State Bank of India and its Associates accounted for 23.4 per cent. The shares of other Scheduled Commercial Banks, Foreign Banks and Regional Rural Banks in aggregate deposits was 17.1 per cent, 5.5 per cent and 3.0 per cent, respectively. As regards gross bank credit, Nationalized Banks held the highest share of 50.6 per cent in the total bank credit followed by the SBI Group at 23.8 per cent and other Scheduled Commercial Banks at 17.8 per cent. Foreign banks and Regional Rural Banks had relatively lower shares in the total bank credit at 5.3 per cent and 2.5 per cent, respectively. Some important indicators in regard to progress of commercial banking in India since 2000 are given in the Table that follows:

TABLE: COMMERCIAL BANKING AT A GLANCE

S. No.	Important Indicators	December 2008	March 2009	June 2009	September 2009	December 2009
1.	Number of Commercial Banks	169	171	171	171	169
	(i) Scheduled Commercial Banks	164	166	166	167	165
	of which : Regional Rural Banks	86	86	86	86	84
	(ii) Non-Scheduled Commercial Banks *	5	5	5	4	4
2.	Number of Reporting Offices					
	(i) Rural	31,204	31,489	31,666	31,829	32,024
	(ii) Semi-Urban	18,329	18,764	19,057	19,418	19,841
	(iii) Urban	14,966	15,325	13,544	15,889	16,277

(iv) Metropolitan	13,251	13,478	13,666	13,954	14,369
Total	77,750	79,056	79,933	81,090	82,511
3. Population Group - Annual Growth Rates (per cent)					
Rural					
(i) Aggregate Deposits	20.4	20.6	18.9	19.8	18.0
(ii) Gross Bank Credit	15.9	14.0	15.1	21.5	18.3
Semi-Urban					
(i) Aggregate Deposits	25.3	23.9	23.1	23.2	19.4
(ii) Gross Bank Credit	16.9	15.7	15.9	18.7	18.5
Urban					
(i) Aggregate Deposits	25.3	25.4	22.0	20.8	16.6
(ii) Gross Bank Credit	21.2	20.4	19.0	18.9	18.9
Metropolitan					
(i) Aggregate Deposits	19.1	20.5	20.7	18.6	16.1
(ii) Gross Bank Credit	25.6	20.2	12.8	9.0	9.1
4. Bank Group - Annual Growth Rates (per cent)					
SBI and its Associates					
(i) Aggregate Deposits	28.9	30.5	29.9	22.8	13.2
(ii) Gross Bank Credit	24.0	21.0	16.2	13.9	14.4
Nationalised Banks					
(i) Aggregate Deposits	22.5	24.5	23.8	24.4	24.2
(ii) Gross Bank Credit	29.0	24.7	21.0	18.5	15.7
Foreign Banks					
(i) Aggregate Deposits	12.0	12.7	18.6	14.7	13.8
(ii) Gross Bank Credit	18.1	3.5	-7.6	-14.7	-9.2
Regional Rural Banks					
(i) Aggregate Deposits	19.8	21.9	19.8	20.6	20.5
(ii) Gross Bank Credit	13.6	14.6	15.6	25.0	23.9
Other Scheduled Commercial Banks					
(i) Aggregate Deposits	11.1	8.9	5.8	6.0	8.7
(ii) Gross Bank Credit	12.3	10.2	3.7	3.7	6.3
All Scheduled Commercial Banks					
(i) Aggregate Deposits	21.0	21.9	21.1	19.8	17.9
(ii) Gross Bank Credit	23.3	19.3	14.3	12.3	12.2
5 Population per office (in thousands) @	15	15	14	14	14
6 Credit-Deposit Ratio (per cent)	74.8	72.6	70.3	70.3	71.1

Note : Figures of quarter ended March relate to 31st March and those of the other quarters relate to the last Friday.

* : Includes Local Area Banks

@ : Projected mid-year population from Census office divided by number of offices

(Source : Quarterly Statistics on Deposits and Credit of Scheduled Commercial Banks - December 2009)

Indian Banks' Operations Abroad

Indian banks continued to expand their presence overseas. Twenty two Indian banks (16 from public sector and 6 from private sector) operated a network of 232 offices. (148 branches 22 subsidiaries, 7 joint venture banks and 55 representative offices) abroad in 52 countries at end (June 2010). The details are given in the table given below:

Table: Overseas operations of Indian banks (as on June 30, 2010)

1	2	3	4	5	6
Name of the Bank	Branch	Subsidiary	Joint Venture Bank	Representative Office	Total
Allahabad Bank	1	-	-	1	2
Andhra Bank	-	-	-	2	2
Bank of Baroda	46	8	1	3	58
Bank of India	24	3	1	5	33
Canara Bank	4	-	-	1	5
Corporation Bank	-	-	-	2	2
Indian Bank	3	-	-	-	3
Indian Overseas Bank	6	1	-	4	11
IDBI Bank	1	-	-	-	1
Punjab National Bank	4	2	1	4	11
State Bank of India	42	5	4	8	59
Syndicate Bank	1	-	-	-	1
UCO Bank	4	-	-	2	6
Union Bank of India	1	-	-	5	6
United Bank of India	-	-	-	1	1
Oriental Bank of Commerce	-	-	-	1	1
HDFC Bank Ltd	1	-	-	2	3
ICICI Bank Ltd	7	3	-	8	18
IndusInd Bank Ltd	-	-	-	2	2
Axis Bank Ltd	3	-	-	2	5
Federal Bank	-	-	-	1	1
Kotak Mahindra Bank	-	-	-	1	1
Total	148	22	7	55	232

Deposit Mobilisation and Development

There has been a substantial increase in the deposits of Scheduled Commercial Banks in the post-nationalisation period. At the end of June 1969, deposits of these banks aggregated to only ₹ 4,646 crore. As on 31st March 2009, this amount has increased to ₹ 39,21,981 crore. Deposit amount with Public Sector Banks was ₹ 3,871 crore in June 1969. As on 31st March 2009, this amount stood at ₹ 28,84,457 crore.

Deposite mobilized by the Banks are utilized for : (i) loans and advances; (ii) investments in government and other approved securities in fulfillment of the liquidity stipulations; and (iii) investment in commercial paper, shares, debentures, etc. up to a stipulated ceiling. There has been a significant increase in the investments of banks in governments and other approved securities from ₹ 1,361 crore in June 1969 to ₹ 11,66410 crore as at the end of March 2009 (last reporting Friday). The Bank credit of scheduled Commercial Banks have grown from ₹ 3,599 crore in June 1969 to Rs. 27.75,549 crore as at the end of March 2009.

Progress of Commercial Banking at a glance is given in the Table that follows :
Table : PROGRESS OF COMMERCIAL BANKING AT A GLANCE

Important Indicators	June	March	March	March	March	March	March	March	March	March
	1969	2001	2002	2003	2004	2005	2006	2007	2008	2009
	1	2	3	4	5	6	7	8	9	10
No. of Commercial Banks	89	301	298	294	291	288	222	183	175	170
(a) Scheduled Commercial Banks	73	296	294	289	286	284	218	179	171	166
Of which: Regional Rural Banks	-	196	196	196	196	196	133	96	91	86
(b) Non-Scheduled Commercial Banks	16	5	4	5	6	4	4	4	4	4
Number of Offices of Scheduled Commercial Banks in India ^	8262	65919	66190	66535	67188	68355	69471	71839	76050	80547
(a) Rural	1833	32562	32380	32303	32121	32082	30579	30551	31076	31667
(b) Semi-Urban	3342	14597	14747	14859	15091	15403	15556	16321	17675	18969
(c) Urban	1584	10293	10477	10693	11000	11500	12032	12970	14391	15733
(d) Metropolitan	1503	8467	8586	8680	8976	9370	11304	11957	12908	14178
Population per office (in thousands)	64	15	16	16	16	16	16	15	15	14.5
Deposits of Scheduled Commercial Banks in India (₹ Crore)	4646 @	989141#	1131187 #	1311761 #	1542284 &	1732858 &	2109049	2611933	3196939	3334110
of which: (a) Demand	2104	159407	169103	187837	245943	265033	354540	429731	524310	523085
(b) Time	2542	829734	962085	1123924	1296342	1467824	1744409	2182203	2672630	3311025
Credit of Scheduled Commercial Bank in India (₹ crore)	3599	529272	609053	746432	865594	1124300	1507077	1931189	2361914	2775549
Deposits of Scheduled Commercial Banks per office (₹ Lakh)	56	1501	1709	1972	2295	2535	3036	3631	4204	4760
Credit of Scheduled Commercial Banks per Office (₹ Lakh)	44	803	920	1122	1288	1645	2169	2685	3106	3446
Per Capita Deposits of Scheduled Commercial Banks (₹)	88	9758	10994	12554	14550	16091	19276	23468	28327	33471

(Contd.)

Per Capita Credit of Scheduled Commercial Banks (₹)	68	5221	5919	7143	8166	10440	13774	17355	20928	24230
Deposits of Scheduled Commercial Banks as percentage of National Income (at Current Prices)	15.5	58.9	60.7	65.3	68.5	68.5	73.8	79.1	84.4	88.1
Scheduled Commercial Banks Advance to Priority Sector (₹ Crore)	504	182255	205604	250989	311335	400775	546774	703756.04	824773	965773
Credit of Scheduled Commercial Banks (per cent)	14.0	35.5	34.8	34.6	37.1	36.7	37.2	36.5	34.9	34.8
Share of Priority Sector Advances in Total Non-Food Credit of Scheduled Commercial Banks (per cent)	15.0	38.5	38.2	37.1	38.8	38.1	38.2	37.4	35.6	35.4
Credit Deposit Ratio	77.5	53.5	53.8	56.9	56.1	64.9	71.5	73.9	73.9	72.4
Investment Deposit Ratio	29.3	37.1	38.7	41.3	43.8	41.6	35.5	30.3	30.4	30.4
Cash Deposit Ratio	8.2	8.4	7.1	6.3	5.6	6.9	6.6	7.5	8.6	6.7

@ Includes Resurgent India Bonds (RIB) (₹ 17,945 crore)

Includes Resurgent India Bonds (RIB) (₹ 17,945 crore) and also India Millennium Deposits (IMD) (₹ 25,662 Crore)

& Includes India Millennium Deposite (IMD) (₹ 25,662 Crore)

* Provisional

^ Excludes Administrative Offices

Banking Ombudsman Scheme

Banking Ombudsman Scheme is in operation since 1995. The Scheme works under the control and supervision of Reserve Bank of India (RBI). Banking Ombudsman is an independent body with legal powers to settle disputes quickly and inexpensively. RBI has appointed 15 Banking Ombudsmen all over the country. The system is designated to ensure, in normal course, satisfactory resolution of complaints as early as possible. Any customer whose grievance has not been resolved by banks to his satisfaction can approach Banking Ombudsman. The Banking Ombudsman Scheme 2006 has been further amended by RBI in consultation with Government of India on 3rd February, 2009. The coverage of the Scheme has been widened to include new grounds of complaints. The grounds of complaint broadly covered under Banking Ombudsman Scheme are:-

1. Credit Card complaints;
2. Pension Complaints;
3. Complaints relating to failure in providing the promised facilities, including through the direct selling agents;
4. Complaints relating to nonadherence to fair practices code as adopted by individuals banks;
5. Non-payment or inordinate delay in the payment or collection of cheques, drafts, bills etc.;
6. Non-Payment or delay in payment of inward remittances.
7. Failure to issue or delay in issue of drafts, pay orders or bankers' cheques;
8. Non-adherence to prescribed working hours.
9. Complaints from Non-Resident Indians having accounts in India in relation to their remittances from abroad, deposits and other bank-related matters;
10. Levying of charges without adequate prior notice to the customer.
11. Non-observance of Reserve Bank guidelines on engagement of recovery agents by banks; and
12. Any other matter relating to the violation of the directives issued by the Reserve Bank in relation to banking or other services.

During the financial year 2008-09 total number of 75009 complaints, relating to the above matters, were handled by various Banking Ombudsman offices. This includes pending complaints from previous period. The Banking Ombudsman have disposed of 65576 complaints during the same period.

Advances to Priority Sector

Extension of credit to small borrowers in the hitherto neglected sectors of the economy has been one of the key tasks assigned to the public sector banks in the post-nationalisation period. To achieve this objective, banks have drawn up schemes to extend credit to small borrowers in sectors such as agriculture, micro and small enterprises (manufacturing and services) retail trade and micro credit which traditionally had very little share in the credit extended by banks.

The scope and extent of priority sector had undergone several changes with several new areas and sectors being brought within the purview of this sector. While there had been demands to include new areas, such as infrastructure, within the ambit of priority sector, views had also been expressed that the focus on the needy

sectors of economy and weaker sections of the society would be completely lost because of such inclusions. In this background, an Internal Working Group was set up in Reserve Bank (Chairman Shri C.S. Murthy) to examine the need for continuance of priority sector lending prescriptions, review the existing policy on priority sector lending including the segments constituting the priority sector, targets and sub-targets etc. and to recommend changes, if any, required in this regard.

Based on the draft Technical Paper submitted by the Internal Working Group on Priority Sector Lending in September 2005, the guidelines on lending to priority sector were revised with effect from April 30, 2007. The revised guidelines on lending the priority sector envisages to ensure adequate flow of bank credit to those sectors of the society/economy that impact large segments of the population, the weaker sections, and to enterprises. The broad categories of advances under priority sector now include agriculture, micro and small enterprises sector, microcredit, education and housing.

The priority sector lending targets of 40 per cent and 32 per cent as also other sub-targets have been retained for the domestic and foreign banks respectively. Regional Rural Banks have a target of 60 per cent of their outstanding advances for priority sector lending. However, these are now calculated as a percentage of Adjusted Net Bank Credit (ANBC) (Net Bank Credit plus investments made by banks in non-SLR bonds held in HTM category) or credit equivalent amount of Off-Balance Sheet Exposures (OBE), whichever is higher, as on March 31 of the preceding accounting year, instead of as a percentage of net bank credit as earlier. The outstanding FCNR (B) and NRNR deposits balances would no longer be deducted for computation of ANBC for priority sector lending purposes. The revised guidelines also take into account the revised definition of small and micro enterprises contained in the Micro, Small and Medium Enterprises Development Act, 2006. Thus, the services sector has been included in the definition of micro, small and medium-enterprises.

In order to improve the credit delivery to priority sector, including agriculture and micro and small enterprises (both manufacturing and services), the following policy initiatives were taken recently:

- Commercial banks/sponsor banks of RRBs were allowed to classify, in their Books loans granted to RRBs for co-lending to the agriculture and allied activities sectors, as indirect finance to agriculture;
- Bank were advised that loans granted to housing finance companies (HFCs) for onlending to individuals for purchase/construction of a dwelling unit per family, could be classified as housing loans under priority sector, provided the loans granted by the HFCs did not exceed ₹ 20 lakh per dwelling unit. The maximum amount of loans granted by banks to HFCs that would be eligible for classification as housing loans under priority sector in the books of banks, however, could not exceed 5.0 per cent of the individual bank's total priority sector lending on an ongoing basis. The above special dispensation is applicable for loans granted by banks to HFCs up to March 31, 2010. Such loans granted till March 31, 2010 will continue to be classified under priority sector till they are repaid. It has been further advised that banks should link the tenor of the loans granted by them to HFCs in line with the average portfolio maturity of housing loans, up to ₹ 20 lakh, granted by the HFCs to the individual borrowers. If the tenors of such loans granted by banks to HFCs is not co-terminus with the on-lending of HFCs, these loans would not be eligible for classification under priority sector;

- Banks have been advised to categorize loans granted for agricultural and allied activities, irrespective of whether the borrowing entity is engaged in export or otherwise. under priority sector lending as direct advances to agriculture sector;
- Loans granted by commercial banks to micro and small enterprises (MSE) (manufacturing and services) are eligible for classification under priority sector, provided such enterprises satisfy the definition of MSC sector as contained in MSMED Act, 2006, irrespective of whether the borrowing entity is engaged in export or otherwise.
- All Scheduled Commercial Banks were advised that loans granted by banks for Retail Trade (i.e. advances granted to retail traders dealing in essential commodities (fair price shops), consumer co-operative stores, and advances granted to private retail traders with credit limits not exceeding Rs. 20 lakh) would henceforth be part of the Small (Service) Enterprises.
- All Scheduled Commercial Banks, including RRBs, were advised that banks may waive margin/security requirements for agricultural loans from the existing level of Rs. 50,000/- to Rs. 1,00,000.
- Regional Rural Banks (RRBs) have been allowed to sell loan assets held by them under priority sector categories in excess of the prescribed priority sector lending target of 60 per cent. RRBs can also issue Inter-Bank Participation Certificates (IBPCs) of tenor of 180 days on risk sharing basis to scheduled commercial banks against their priority sector advances in excess of 60 per cent of their outstanding advances.
- In November 2009, banks were advised to draw up a roadmap by March 2010 to provide banking services through a banking outlet in every village having a population of over 2,000 which will result in extending financial inclusion to more than one lakh villages. Such banking services may not necessarily be extended through a brick and mortar branch but can be provided through any of the various forms of ICT-based models, including through Business Correspondents (BCs)
- In January 2010, all domestic commercial banks- public and private sector were advised to draw up specific Board approved Financial Inclusion Plans (FIP) by March 2010, incorporating some basic minimum qualitative features, and quantitative indicators with a view to rolling them out over the next three years. Banks have been advised that the top managements need to emphasize financial inclusion and make it an integral part of their business plans. Accordingly, banks have prepared their FIPs for the period 2010-13 and submitted to the Reserve Bank. The FIPs are being monitored by the Reserve Bank on a regular basis.

Amount outstanding under priority sector lending by public sector banks during the period June 1969 to March 2010 (provisional) increased from Rs 441 crore to Rs 8,64,564.29 crore and accounted for 41.7 per cent of Adjusted Net Bank Credit (ANBC) or credit equivalent of off-balance sheet exposures, whichever is higher, as on the last reporting Friday of March 2010.

Credit Flow to Weaker Sections

With a view to augment credit flow to small and poor borrowers, commercial banks were advised by the Reserve Bank of India to provide at least 10 per cent of their net

bank credit or 25 per cent of their priority sector advances to weaker sections comprising small and marginal farmers, landless labourers, tenant farmers and share croppers, artisans, village and cotton industries where individual credit limits do not exceed Rs. 50000, beneficiaries of Government sponsored schemes such as the Swarna Jayanti Gram Swarozgar Yojana (SGSY) for rural poverty, Swarna Jayanti Shahari Rozgar Yojana (SJSRY) and the Scheme of Rehabilitation of Manual Scavengers (SRMS), beneficiaries of the Differential Rate of Interest (DRI) scheme Scheduled Castes and Scheduled Tribes; advances to Self-Help Groups and loans to distressed poor to prepay their debt to informal sector, against appropriate collateral or group security. Loans granted under above sub-heads to persons from minority communities would also comprise of loans given to weaker sections. As on the last reporting Friday of March 2010 (provisional), the amount of outstanding advances extended by public sector banks to the weaker sections under the priority sector amounted to ₹ 2,12,214.83 crore and accounted for 10.2 per cent of their net bank credit.

Credit Flow to Agriculture

Banks were initially given a target of extending 15 per cent of the total advances as direct finance to the agriculture sector to be achieved by March 1985. This target was subsequently raised to 18 per cent, to be achieved by March 1990. In terms of the guidelines issued by the Reserve Bank of India in October 1993, both direct and indirect advances for agriculture are taken together for assessing the target of 18 per cent, with the condition that for the purpose of computing their performance in lending to agriculture, lending under the "indirect" category in excess of 4.5 per cent of net bank credit would not be reckoned in computing performance under the sub-target of 18 per cent, so as to ensure that the focus of banks on direct lending to agriculture is not diluted. However, all agricultural advances under the categories 'Direct' and Indirect' will be reckoned in computing performance under the overall priority sector target of 40 percent of the net bank credit.

The Union Finance Minister announced certain measures on 18 June 2004, which, *inter-alia*, included a target for doubling of flow of credit to agriculture and allied activities within a period of three years commencing from 2004-05. over the amount disbursed during the year 2003-04. This goal was achieved in two years. The target and achievement of agricultural credit flow during the years 2004-05 to 2009-10 is as under:-

Year	Target	Achievement
		(Rs. in Crore)
2004-05	105.000	125.309
2005-06	141.000	180.486
2006-07	175.000	229.400
2007-08	225.000	254.658
2008-09	280.000	301.908
2009-10	325.000	366.919

Source: NABARD

Advances to SC/ST Borrowers

People belonging to the Scheduled Castes and Scheduled Tribes have been recognised as the most vulnerable sections. Banks have been asked to make special efforts to

assist them with adequate credit to enable them to undertake self-employment ventures for acquiring income generating capital assets so as to improve their standard of living. At the end of March 2010, the total outstanding loan extended to scheduled castes/ scheduled tribes by public sector banks under priority sector lending was ₹ 50,720.00 crore in 86.75 lakh borrowal accounts.

Differential Rate of Interest Scheme (DRI)

Under the DRI Scheme, introduced in 1972, Public Sector Banks are required to fulfil the target of lending of at least one per cent of the advances as at the end of the previous year to the weakest of the weaker sections of the society at an interest rate of four per cent per annum. The scheme covers poor borrowers having a family income of not more than ₹18,000 in rural areas and ₹ 24,000 in urban and semi-urban areas and not having more than 2.5 acres of un-irrigated or one acre of irrigated land. They are given credit support of Rs. 15,000 as term loan and working capital loan for productive ventures. In addition to the term loan SC/ST beneficiaries satisfying the income and land holding criteria under the Scheme can also avail of housing loan upto ₹ 20,000/- per beneficiary. The public sector banks have an outstanding of DRI credit amounting to ₹ 752.07 crore as at the end of March 2010.

Swarnjayanti Gram Swarozgar Yojana (SGSY)

The Union Ministry of Rural Development launched a restructured poverty alleviation programme, Swarnjayanti Gram Swarozgar Yojana (SGSY) with effect from 1 April 1999, which replaced IRDP and its allied schemes viz., Training of Rural Youth for self Employment (TRYSEM), Development of Women and Children in Rural Areas (DWCRA), Supply of improved Tool kits to Rural Artisans (SITRA), Ganga Kalyan Yojana (GKY) and Million Wells Scheme (MWS).

The scheme aims at establishing a large number of micro enterprises in the rural areas of the country. The objective of the scheme is to bring every assisted BPL family, above the poverty line in three years by providing them income generating assets through a mix of bank credit and government subsidy.

SGSY is a holistic poverty alleviation scheme covering all aspects of self employment such as organisation of poor into self help groups, training, credit, technology, infrastructure and marketing. The scheme is funded on 75:25 basis by central and the respective States Government and is implemented by DRDAs through Panchayat Samitis. Major share of assistance is for 4-5 key activities identified at the block level.

Financial year 2008-09 was the tenth year of implementation of the scheme. Total number of 13,72,238 swarozgaris have received bank credit amounting to ₹ 1,282.75 crore and Government Subsidy amounting to ₹ 416.69 crore under SGSY as at the end of March 2009. Of the Swarozgaris assisted, 4,36,541 (31.80 per cent) belonged to Scheduled Castes and Scheduled Tribes (SC/ST), while 6,47,228 (47.16 per cent) were women and 9,881 (0.72 per cent) were physically handicapped.

Swarna Jayanti Shahari Rozgar Yojana (SJSRY)

The SJSRY Scheme is in operation since 1.12.1997 in all urban and semi-urban towns of India. The programme is applicable to all the cities and towns on a whole town basis. The target population under SJSRY is the urban poor, those living below the poverty lines as defined by the Planning Commission from time to time. Under the scheme, women are to be assisted to the extent of not less than 30 per cent. Differently-abled at 3 per cent and SC/STs at least to the extent of the proportion of their strength

in the local population. The scheme is funded on a 75:25 basis by the Central and the respective State Government.

The scheme has five components as under:

- (i) Urban Self Employment Programme (USEP)
- (ii) Urban Women Self-help Programme (UWSP)
- (iii) Skill Training for Employment promotion amongst Urban Poor (STEP-UP)
- (iv) Urban Wage Employment Programme (UWEP)
- (v) Urban Community Development Network (UCDN)

During the year 2008-09, (up to March 2009), disbursements amounting to Rs 282.25 crore were made in 73,837 cases (out of 1,33,668 applications received). Of the above, Rs 72.29 crore was disbursed to 20,399 SC/STs, Rs 63.70 crore were disbursed to 16,676 women and Rs 3.29 crore were disbursed to 792 disabled persons.

Self Help Groups (SHGs)

The SHG-Bank Linkage Programme was started in the year 1992 as a flagship programme by NABARD and ably supported by RBI through policy support. The programme envisages organization of the rural poor into Self-Help Groups (SHGs) building their capacities to manage their own finances and then negotiating bank credit on commercial terms. The poor are encouraged to voluntarily come together to save small thrift regularly and extend micro-loans among themselves. Once the group attains required maturity of handling larger resources, the bank credit follows.

After phases of (i) pilot testing during 1992 to 1995 (ii) mainstreaming during 1996 to 1998 and (iii) expansion from 1998 onwards, the SHG-Bank Linkage programme has now assumed the shape of a movement in the country. The programme has been well supported by a large number of NGOs and several Government organisations. The phenomenal outreach of the programme has enabled an estimated 86 million poor households to gain access to microfinance.

PROGRESS IN 2008-09

Small Industries Development Bank of India (SIDBI)

The Small Industries Development Bank of India (SIDBI) was established as the principal financial institution for promotion, financing and development of industries in the small scale sector. SIDBI started its operations from April 02, 1990 and is engaged in providing assistance to Micro, Small and Medium Enterprises (MSMEs) in the country.

Progress under Microfinance - Savings of SHGs with Banks

(Amount in ₹ Lakh)

Name of the Agency	Total Savings of SHGs in the		Out of Total - Under SGSY		Out of Total - Exclusive	
	No. of SHGs	Amount of Savings	No. of SHGs	Amount of Savings	No. of SHGs	Amount of Savings
Commercial Banks	3549509	277298.94	931422	68160.25	2843932	216003.51
Regional Rural Banks	1628588	198975.08	433912	77454.74	1336219	177115.36
Cooperative Banks	943050	78287.80	140247	10723.52	683770	50284.15
Total	6121147	554561.82	1505581	156338.51	4863921	443403.02

Progress under Microfinance -Bank Loans disbursed to SHGs

(Amount in ₹ Lakh)

Name of the Agency	SHGs Loans disbursed by		Out of Total - Under SGSY		Out of Total - Exclusive	
	No. of SHGs	Amount of Loan	No. of SHGs	Amount of Loan	No. of SHGs	Amount of Loan
Commercial Banks	1004587	806053.10	133117	110237.87	862527	696517.77
Regional Rural Banks	405569	319349.01	81662	65527.74	355184	283439.65
Cooperative Banks	199430	99949.28	49874	25756.83	156868	72780.16
Total	1609586	1225351.39	264653	201552.44	1374579	1052737.58

Progress under Microfinance -Bank Loans Outstanding against SHGs

(Amount in ₹ Lakh)

Name of the Agency	Total Loans of Outstanding		Out of Total - Under SGSY		Out of Total - Exclusive	
	No. of SHGs	Amount of O/S Loans	No. of SHGs	Amount of U/S Loans	No. of SHGs	Amount of O/S Loans
Commercial Banks	2831374	1614942.90	6451.45	396153.06	2245564	1350912.69
Regional Rural Banks	977834	522441.61	258890	150810.18	724179	414723.74
Cooperative Banks	415130	130599.84	72852	39209.31	307619	92717.14
Total	4224338	2267984.25	976887	586172.55	3277362	1858353.57

directly and through other institutions like State Financial Corporations, Commercial Banks, State Industrial Development Corporations, etc. The financial assistance sanctioned and disbursed by SIDBI during FY 2009-10 aggregated to ₹ 421 crore during FY 2009-10.

HOUSING FINANCE**National Housing Bank (NHB)**

The National Housing Bank (NHB), the apex institution of housing finance in India, was set up as wholly owned subsidiary of the Reserve Bank of India. The NHB started its operations from July, 1988. The authorized paid-up capital of NHB stood at ₹ 450 crore and the reserves were ₹ 1972 crore as on June 30, 2009. The Bank had made a profit of ₹ 236 crores in the year 2008-09 (July-June). The total loan sanctions were ₹ 15737.30 crores and the disbursements were ₹ 10899 crores. A special liquidity package of ₹ 4000 crores was provided to HFCs for financing housing loans to the customers. A fund known as Rural Housing Fund has been established in NHB. The contribution to the fund for the year amounting to ₹ 1760 crores was made by the Banks which fell short of their priority sector lending obligations.

Total refinance extended by NHB to all housing institutions including HFCs, commercial banks and co-operative sector institutions stood at ₹ 16208 crore as on 20 June 20 2009. NHB monitors the performance of the Golden Jubilee Rural Housing Finance Scheme being implemented through Scheduled Commercial Banks, HFCs and co-operative sector institutions. Against a target of 3.50 lakh dwelling units set by Government of India for the year 2009-10, 3,87,546 units were financed during the period. In addition to that, National Housing Bank has introduced a Reverse Mortgage product for senior citizens, under which a senior citizen, who is the owner of a house can avail a monthly stream of increase against the mortgage of his/her house, while

remaining the owner and occupying the house throughout his/her lifetime, without repayment or servicing of the loan.

Export-Import Bank of India (EXIM Bank)

Export-Import Bank of India (EXIM Bank) was established for financing, facilitating and promoting foreign trade in India. During the year 2009-10, EXIM Bank received share capital of ₹ 300 crore from Government of India. As on 31 March 2010 EXIM Bank's paid up capital was ₹ 1700 crore. During the year ended 31 March 2010, EXIM Bank sanctioned loans of ₹ 38,843 crore while disbursements amounted to ₹ 33,249 crore. Profit after tax of the EXIM Bank for the year 2009-10 amounted to ₹ 513 crore. The broad range of products includes deferred credit arrangements for exporters, equity and loan support for overseas investments and finance for technology imports, and RandD Expenditure.

India Infrastructure Finance Company Ltd. (IIFCL)

IIFCL, a wholly owned Government of India company, was set up on 5 January 2006 and commenced operations from April, 2006. The company provides long term debt to commercially viable infrastructure projects as per the Scheme for Financing Viable Infrastructure Projects through IIFCL (SIFTI). The authorized capital of the company is Rs. 2000 crore and the paid-up capital as on 31.3.2010 was ₹ 1800 crore. Since commencement of operations in April, 2006 till March, 2010 the Company has sanctioned ₹ 24,378 crore in 139 projects in sectors like Roads, Power, Airport, ports and urban infrastructure.

National Bank for Agriculture and Rural Development (NABARD)

National Bank for Agriculture and Rural Development (NABARD) came into existence on 12 July, 1982. NABARD was established for providing credit for promotion of agriculture, small-scale industries, cottage and village industries, handicrafts and other allied economic activities in rural areas with a view to promoting integrated rural development and securing prosperity of rural areas. The paid-up capital of NABARD stood at Rs. 2000 crore as on 31 March 2010. The profit after tax amounted to ₹ 1558 crore during the year 2009-10 as against ₹ 1390 crore during the year 2008-09.

Since 1995-96 NABARD has been providing finance to the State Governments for rural infrastructure projects under Rural Infrastructure Development Fund (RIDF). Total sanctions by NABARD under RIDF (RIDF-I to RIDF-XV), as on 31 March 2010, aggregate to ₹ 1,03,718.00 crore while the cumulative disbursements stand at ₹ 68,439.74 crore. This fund is meeting the financing needs of the State Governments for 31 approved activities, important among which include projects covering irrigation, rural roads and bridges, health and education, soil conservation, drinking water schemes, etc.

In 2006-07, a separate window of Bharat Nirman for construction of Rural Roads under PMGSY was started. Total sanctions by NABARD to National Rural Road Development Agency (NRRDA) under RIDF as on 31 March 2010, aggregate to ₹ 18,500 crore and the entire amount has been released to NRRDA.

Regional Rural Banks (RRBs)

Regional Rural Banks (RRBs) were set up to take banking services to the doorsteps of rural masses especially in remote rural areas with no access to banking services. These banks were originally intended to provide institutional credit to the weaker

sections of the society called 'target groups'. The (RRBs) were conceived as institutions that combine the local feel and familiarity with rural problems, which the co-operatives possess, and the degree of business organisation as well as the ability to mobilise deposits, which the commercial banks possess. The RRBs were also intended to mobilise and channelise rural savings for supporting productive activities in the rural areas. However, with effect from April 1997, the concept of priority sector lending was made applicable to RRBs. The interest rates on term deposits offered and interest rates on loans charged by RRBs have also been freed. RRBs which comply with certain prescribed conditions are also permitted to open and maintain non-resident accounts in rupees. With a view to consolidating and strengthening RRBs, the Government of India initiated, in September 2005, the process of amalgamation of RRBs, in a phased manner. Accordingly as on 31st March, 2010 the total number of RRBs stood at 82 (46 amalgamated and 36 standalone) including one new RRB viz. Puduval Bhathiar Grama Bank established in Puducherry on 26th March, 2008. Further, as part of the financial strengthening of RRBs, recapitalization of 27 RRBs having negative networth as on 31st March, 2007 was initiated in 2007-08. As on 31st March, 2010, these 27 RRBs have been recapitalized with total funding support of ₹ 1795.97 crore by Government of India, State Governments and sponsor banks.

The credit outstanding of all the 196 RRBs stood at ₹ 60,159.74 crore as at the end of March 2009 and deposit of ₹ 105568.13 crore had been mobilized by the RRBs by that date.

Insurance

Since opening up, the number of participants in the industry has gone up from six insurers (including Life Insurance Corporation of India, four public sector general insurers and General Insurance Corporation of India as the National Reinsurer) in the year 2000 to 47 insurers as on March 2010 operating in the life, non-life and reinsurance segments (including specialized insurers viz. Export Credit Guarantee Corporation and Agriculture Insurance Company of India Ltd. AICIL). Three of the general insurance companies, viz. Star Health and Alliance Insurance Company; Apollo Munich Health Insurance Company; and Max BUPA Health Insurance Co. Ltd. function as standalone health insurance companies.

Of the 22 life insurance companies which have set up operations in the life segment post opening up of the sector, 20 are in joint venture with foreign partners. Of the 17 who have commenced operations in the non-life segment, 16 had been set up in collaboration with foreign partners. Thus, 36 companies in the private sector are operating in the country in collaboration with established foreign insurance companies from across the globe as on 31st March, 2010.

Life Insurance Corporation of India (LIC)

The Life Insurance Corporation with its Central Office in Mumbai, 8 Zonal Offices at Mumbai, Kolkata, Delhi, Chennai, Hyderabad, Kanpur, Bhopal and Patna, 109 Divisional Offices including one Salary Savings Schemes (SSS) Division at Mumbai, 2048 Branch Offices and 1004 Satellite Offices as on 31 March 2010, spreads the message of Insurance through the length and breadth of India, with the help of 14.02.807 agents.

LIC also transacts business abroad. International Operations were set up with an endeavor to establish global presence and also to acquire the best practices being

followed internationally so that LIC may become a world class organization. LIC's endeavour is to further consolidate their Brand Image across the world.

At present LIC is operating internationally through Branch Offices in Fiji, Mauritius and UK and through Joint Venture Companies in Bahrain, Nepal, Sri Lanka, Kenya and Saudi Arabia. Its Representative Office in Singapore was opened on 06.11.2008. LIC is now in the process of establishing a Wholly-Owned Subsidiary (WOS) there.

In 2009-10, all foreign units put together procured new business of 82,794 policies with First Premium income of ₹ 207.92 crores, registering a growth of 31.75 per cent (NOP) and 23.81 per cent (FPI). The total Premium Income of all units in 2009-10 was ₹ 736.61 crores.

During the financial year 2009-10, the total First Year Premium under Individual Assurances was approximately ₹ 50,527.31 crores under 368.38 lakh policies. The Group Insurance brought a new business premium of approximately ₹ 20,542.11 crore under 18,573 schemes covering 2,37,57,262 lives.

The Life Fund, as on 31.3.2010, amounts to approximately ₹ 9.98,501 crores. The Corporation made payments of around ₹ 7,031.62 crores under Death Claim cases, around ₹ 46,917.93 crores under Maturity Claims and around ₹ 3,770.41 crores under annuities.

(i) JANASHREE BIMA YOJANA

The Janashree Bima Yojana (JBY) was launched in 10 August 2000. The Scheme has replaced Social Security Group Insurance Scheme (SSGIS) and Rural Group Life Insurance Scheme (RGLIS). 45 occupational groups have been covered under this scheme.

The Scheme provides for an insurance cover of ₹ 30,000 on natural death. On death/total permanent disability due to accident, the benefit is ₹ 75,000/-. On partial permanent disability due to accident, the benefit is ₹ 37,500/-. The premium for the scheme is Rs 200/- per member per annum, 50 per cent of which is met out of Social Security Fund. The balance premium is to be borne by the member and/or Nodal Agency. As on 31 March 2010, about 184.43 lakh have been covered. The balance in Social Security Fund as on 31 March 2010 is 618.83 crore. (Provisional)

(ii) SHIKSHA SAHAYOG YOJANA

The Scheme was launched on 31 December 2001, with the object to lessen the burden of parents in meeting the educational expenses of their children. It provides scholarships to students of parents living below or marginally above poverty line and who are covered under Janashree Bima Yojana and children are studying in 9th to 12th standard (including ITRI courses).

A scholarship amount of ₹ 600/- per half year per child is paid for a maximum period of four years and for maximum two children of a member covered under Janashree Bima Yojana.

No premium is charged for this benefit. During the financial year 2006-2010 scholarship were disbursed to 9,13,281 beneficiaries amounting to ₹ 67.58 crores.

(iii) AAM ADMI BIMA YOJANA

AAM ADMI BIMA YOJANA, a new Social Security Scheme for rural landless household was launched on 2nd October, 2007 by the then Union Finance Minister at Shimla.

The head of the family or one earning member in the family of rural landless household is covered under the Scheme.

The premium of ₹ 200/- per person per annum is shared equally by the Central Government and the State Government. Head of the family or one earning member of the family aged between 18 and 59 years is covered for an amount of ₹ 30,000/- under the Scheme. In case of death or total disability (including loss of 2 eyes/2limbs) due to accident, a sum of ₹ 75,000/- and in case of partial permanent disability (loss 1 eye/1 limb) due to accident, a sum of ₹ 37,500/- is payable to the nominee/beneficiary. As on 31 March 2010, 1,30,45,666 heads of the families of rural landless households were covered under the Scheme.

A free add-on benefit for the children of the members of AAM ADMI BIMA YOJANA is provided under the Scheme in the form of a scholarship at the rate of ₹ 100/- per month and is given to maximum two children studying between IX to XII Standard payable half yearly on 1st July and 1st January each year. During the financial year 2009-2010 scholarship were disbursed to 86,906 children amounting to ₹ 54.48 Crores.

General Insurance Corporation of India (GIC Re)

The General Insurance Corporation of India (GIC Re) was approved as the "Indian Reinsurer" on 3rd November 2000. As an the "Indian Reinsurer" GIC Re has been giving reinsurance support to non-life Insurance companies in India. It continues its role as a reinsurance facilitator by managing Marine Hull Pool, Terrorism Pool and Indian Motor Third Party Insurance Pool on behalf of Indian Insurance industry. The Reinsurance programme of GIC Re aims at optimizing the retention within the country and developing adequate reinsurance capacity.

The Corporation continued to offer maximum support for all classes of business to the Indian insurers. Property and Engineering Risks are covered up to ₹ 1500 crore. Whenever there is a requirement to cover a Large Risk beyond ₹ 1500 crore, specific Excess of Loss cover is arranged beyond the said limit. The per location capacity of the Terrorism Pool managed by GIC Re has increased to ₹ 750 crore with effect from 1.4.2008 from the earlier limit of ₹ 600 crore.

Since 1.4.2007, the GIC Re administers the market initiative in respect of Commercial Vehicle Market Third Party Liability policies as a multi-lateral reinsurance arrangement among the participating non-life insurance companies in India. The GIC Re continues to lead the reinsurance programme of the companies in Kenya, Malaysia, Mauritius, Middle-East, Africa and Sri Lanka. In the process, it has emerged as a preferred Reinsurer in the Afro-Asian region. GIC Re is expanding its global presence and now plans to enter the Latin American market having got the 'Eventual Reinsurer' status in Brazil. GIC Re has been selected as the Manager for Nat Cat Pool promoted by the Federation of Afro-Asian Insurers and Reinsurers (FAIR).

During the year 2009-10, the net premium income of the Corporation was ₹ 8776.87 crore as against ₹ 7402.33 crore in the previous year. The net incurred claims were at ₹ 6,856.39 crore, i.e., 84.9 per cent as against ₹ 6217.14 crore in the previous year, i.e., 79.6 per cent. Profit after tax was ₹ 1774.60 crore as on 31st March 2010 compared to ₹ 1407.20 crore as on 31st March 2009. The total assets and networth as on 31st March 2010 was ₹ 43842.13 crore and ₹ 9133.26 crore, respectively.

The Corporation has its presence in foreign reinsurance business through its Branch offices in Dubai and London and a Representative Office in Moscow. A branch

office is also being opened shortly in Kuala Lumpur, Malaysia. Apart from reinsurance business, GIC Re continues to participate in the share capital of Kenindia Assurance Company Ltd. Kenya; India International Insurance Pvt Ltd. Singapore; LIC (Mauritius) Offshore Ltd, Mauritius; Asian Reinsurance Corporation. Thailand; East Africa Reinsurance Company Ltd.; Kenya; and Agriculture Insurance Company of India Limited.

Public Sector General Insurers' Companies (GIPSA)

After opening up of the insurance sector and de-linking from GIC in 2000, the four General Insurance Companies, namely, National Insurance Company Ltd., New India Assurance Company Ltd., Oriental Insurance Company Ltd., and United India Insurance Company Ltd., are functioning independently. The four Public Sector General Insurance Companies have a network of 101 Regional Offices, 1395 Divisional Offices, 2880 Branch Offices in India and 55 Overseas Offices.

The gross premium income of the four Public Sector General Insurance Companies during 2008-09 was ₹ 19,107 crore as against ₹ 17,813 crore during 2007-08. Profit after Tax for 2008-09 was ₹ 508.85 crore as against ₹ 2205 crore in 2007-08. The companies have paid a total dividend of ₹ 141 crore in 2008-09 to the government as against ₹ 449 crores in 2007-08

Universal Health Insurance Scheme (UHIS) :

The four Public Sector General Insurance Companies have been implementing UHIS for improving the access of health care to poor families from the year 2003-04 onwards; The Scheme, applicable to BPL families, provides for reimbursement of medical expenses up to ₹ 30,000 towards hospitalisation floated amongst the entire family; death cover due to accident for ₹ 25,000/- to the earning head of the family and compensation due to loss of earning of the earning member or spouse @ ₹ 50/- per cent per day up to a maximum of 15 days of hospitalization. The coverage also includes pre-existing diseases. Maternity benefits up to ₹ 2,500/- for normal delivery are reimbursed and expenses for the new born are also covered. The entry into the Scheme is available for persons up to the age of 70 years.

The subsidy amounting to Rs. 200/- for an individual, ₹ 300/- for a family of five and ₹ 400/- for a family of seven members is provided by the Central Government. The premium rest of subsidy ₹ 100/- for individuals, ₹ 150/- for a family of five and ₹ 200/- only for a family of seven members.

Agriculture Insurance Company of India Ltd (Aic)

A separate organization for agriculture insurance viz. Agriculture Insurance Company of India Ltd. (AIC) was incorporated under the Companies Act, 1956 on 20 December 2002 with the capital participation from General Insurance Corporation of India (GIC), four public sector general insurance companies viz., (i) National Insurance Company Ltd., (ii) New India Assurance Company Ltd., (iii) Oriental Insurance Company Ltd., and (iv) United India Insurance Company Ltd. and NABARD. The promoter's subscription to the paid-up capital is 35 per cent by GIC, 30 per cent by NABARD and 8.75 per cent each by the four public sector general insurance companies.

The authorised capital of the AIC is ₹ 1,600 crore, while the initial paid-up capital is ₹ 200 crore. The company had commenced business from 1 April 2003.

While AICIL underwrote crop insurance to begin with, it has covered other allied rural/agricultural risks also. National Agriculture Insurance Scheme (NAIS) which was being implemented by the General Insurance Corporation of India (GIC) was transferred to the AICIL, in addition to NAIS. AICIL is also implementing Weather Based Crop Insurance Scheme (WBCIS).

Appreciating the importance of agriculture insurance the Government of India while approving the National Policy for Farmers 2007, has taken into account the recommendations of National Commission on Farmers for inclusion of crop insurance as a part of a comprehensive approach towards development and sustenance of the farm sector.

National Agricultural Insurance Scheme (NAIS)

NAIS was implemented from Rabi 1999-2000 season replacing Comprehensive Crop Insurance Scheme (CCIS). The Scheme is being implemented by the Agriculture Insurance Company of India Ltd. on behalf of Ministry of Agriculture. The main objective of the Scheme is to protect the farmers against the losses suffered by them due to crop failure on account of natural calamities, such as drought, flood, hailstorm, cyclone, fire, pest/diseases, etc, so as to restore their credit worthiness for the ensuing seasons.

The Scheme is available to all the farmers both, loanee and non loanee irrespective of the size of their holding. The Scheme envisages coverage of all crops including cereals, millets, pulses, oilseeds and annual commercial and horticulture crops in respect of which past yield data of 10 years, is available.

At present 70 different Food and Oilseed crops are covered during Kharif and Rabi seasons. Sugarcane, Potato, Ginger, Onion, Turmeric, Chilly, Jute, Tapioca, Banana, Pineapple, Brinjal, Coriander, Cumin, Fennel, French Bean. Garlic, Isabgul, Fenugreek and Tomato have been brought under insurance coverage among the annual commercial / horticultural crops.

As per the provisions of National Agriculture Insurance Scheme, the flat premium rates are 3.5 per cent for Bajra and Oilseeds, 2.5 per cent for other Kharif crops; 1.5 per cent for Wheat, and 2 per cent for other Rabi crops. In case actuarial rates are less than prescribed flat premium rates, the lower rate is applicable for food crops and oilseeds.

In case of annual commercial and horticulture crops actuarial rates are charged. At present, 10 per cent subsidy in premium is allowed for small and marginal farmers, shared equally by Central and State government.

However, some State and Union Territory governments are also providing higher subsidy to small and marginal farmer and subsidy to other farmers. The Scheme operates on the basis of 'Area Approach' for widespread calamities. The unit of insurance may be Gram Panchayat, Mandal, Hobli, Circle, Phirka, Block, Taluka etc., to be decided by the respective State/UT Government.

At present 25 States and 2 Union Territories are implementing the Scheme. Some of the states have notified lower unit of insurance such as village. Till kharif 2009 season, 15.23 crore farmers were covered with area insurance of 23.63 crore hectares, sum insured of ₹ 174910 crore, compensating 4.28 crore farmers with claim amount of ₹ 18725.27 crore since the inception of the scheme.

Weather Based Crop Insurance Scheme (WBCIS)

From the season Kharif 2007-08, AIC has started implementing WBCis as a pilot risk mitigation scheme as an alternative to NAIS. WBCIS is a parametric insurance product designed to provide insurance protection to the cultivator against adverse weather incidence during the cultivation period, such as deficit and excess rainfall, frost, heat (temperature), relative humidity, wind speed etc. which are deemed to adversely impact the crop yield.

Crops and Reference Unit Areas (RUA) are notified before the commencement of the season by the State Governments. Each RUA is linked to a Reference Weather Station (RWS), on the basis of which payout/claims are processed. The payouts are made on the basis to adverse variations in the current season's weather parameters as measured at Reference Weather Station (RWS). Claim under WBCIS is area-based and automatic. Insured cultivators are not needed to intimate losses or lodge claims to the insurers.

During Kharif 2007 season, the scheme was implemented in Karnataka covering 70 Hoblis. During Rabi 2007-08 season, the Scheme was implemented in the State of Rajasthan, Chattisgarh, Madhya Pradesh and Bihar.

During the Kharif 2008 season, the Scheme was implemented in 10 States namely Madhya Pradesh, Haryana, Punjab, Bihar, Rajasthan, Jharkhand, Maharashtra, Karnataka, Orissa and Tamilnadu. During Rabi 2008-09 season, the Scheme was again implemented in 10 States namely Haryana, Bihar, Rajasthan, Jharkhand, Karnataka, Tamil Nadu, Kerala, West Bengal, Chattisgarh and Himachal Pradesh.

During Kharif 2009 season, the Scheme was implemented in 13 States namely Madhya Pradesh, Haryana, Bihar, Rajasthan, Jharkhand, Maharashtra, Karnataka, Orissa, Tamilnadu, Gujarat, West Bengal, Andhra Pradesh and Kerala. During the Rabi 2009-10 season, the Scheme was again implemented in 11 States namely Haryana, Bihar, Madhya Pradesh, Rajasthan, Jharkhand, Karnataka, Tamilnadu, Kerala, West Bengal, Andhra Pradesh and Himachal Pradesh. The coverage so far under WBCIS is shown in the table below:

(Amount in ₹ 00.000)

S. No.	Particulars	Kharif-07	Rabi 07-08	Kharif 08	Rabi 08-09	Kharif 09	Rabi 09-10
1	Farmers	43,790	6,27,168	1,65,109	1,68,884	11,32,219	8,69,829
2.	Sum Insured	5,301	1,70,495	31,313	42,623	1,98,931	1,97,215
3.	Farmers	142	4,300	831	874	5,799	3,982
4.	Claims	524	10,072	1,440	2,750	16,128	13,367 *

(* Claims payable figures for Rabi 2009-10 are estimated. The Scheme is being continued in Kharif 2010)

Besides the above, AIC has designed and implemented various crop insurance products to cater to the diverse needs of farming community of India such as Apple Insurance, Cardamon Insurance, Rubber Insurance etc.

DISINVESTMENT

The disinvestment of Government equity in Central Public Sector Enterprises (CPSEs) began in 1991-1992. Till 1999-2000, it was primarily through sale of minority shares in

small lots. From 1999-2000 till 2003-04, the emphasis of disinvestment changed in favour of Strategic Sale viz. sale of a large block of shares alongwith transfer of management control to a Strategic Partner identified through a process of competitive bidding. After 2004-2005, disinvestment realisations have been through sale of small portions of equity. The total proceeds from disinvestment between 1991-1992 and 31st March, 2010 amounted to ₹ 76,975.96 crore, consisting of the following:

Item	Amount Realised (' in Crore)	per cent
Receipts through sale of minority shareholding in CPSEs	58,910.94	76.53
Receipts through sale of majority shareholding of one CPSE to another CPSE	1317.23	1.71
Receipts through Strategic sale	6,344.35	8.24
Receipts from other related transactions	4,005.17	5.20
Receipts from sale of residual shareholding disinvested CPSEs/companies	6,398.27	8.31
TOTAL	76,975.96	100.00

Policy Framework

The objective of the disinvestment policy is to develop people's ownership of Central Public Sector Enterprises to share in their wealth and prosperity while ensuring that Government equity does not fall below 51 per cent and government retains management control.

The Government, on 5th November 2009 approved an action plan for disinvesting Government equity in profit making CPSUs.

Approach for disinvestment:

- (i) Already listed profitable CPSEs (not meeting mandatory shareholding of 10 per cent) are to be made compliant by 'Offer for Sale' by Government or by the CPSEs through issue of fresh shares or a combination of both.
- (ii) Unlisted CPSEs with no accumulated losses and having earned net profit in three preceding consecutive years are to be listed.
- (iii) The Department of Disinvestment to identify CPSEs in consultation with respective administrative Ministries and submit proposal to CCEA in cases requiring Offer for Sale of Government equity.

Constitution of National Investment Fund

The Government has constituted a "National Investment Fund" (NIF) in 2005-06 into which the proceeds from disinvestment of Government equity in CPSEs would be channelised. NIF would be maintained outside the Consolidated Fund of India and would be professionally managed by selected Public Sector Mutual Funds to provide sustainable returns without depleting the corpus. Of the annual income of the Fund, 75 per cent will be used to finance selected social sector schemes, which promote education, health and employment. The residual 25 per cent of the annual income of the Fund will be used to meet the capital investment requirements of profitable and revivable CPSEs that yield adequate returns, in order to enlarge their capital base to finance expansion/diversification. The corpus of the fund as on 31st

March, 2009 is ₹1814.45 crore.

In view of difficult economic situation, the disinvestment proceeds channelised into NIF from April 2009 to March 2012 (three years) would be channelised in full to support specific social sector schemes identified by Planning Commission/ Department of Expenditure. *Status quo ante* of NIF will be restored after three years, i.e., after April 2012.

Use of Disinvestment Proceeds

From April 2009, the disinvestment proceeds are being used for funding the capital expenditure under the social sector schemes of the Government, namely:-

- (i) Mahatma Gandhi National Rural Employment Guarantee Scheme
- (ii) Indira Awas Yojana
- (iii) Rajiv Gandhi Gramin Vidyutikaran Yojana
- (iv) Jawaharlal Nehru National Urban Renewal Mission
- (v) Accelerated Irrigation Benefits Programme
- (vi) Accelerated Power Development Reform Programme

During 2004-05, Government realized ₹ 2,684.07 crore from the sale of 43.29 crore equity shares of ₹ 10 each of National Thermal Power Corporation Ltd., ₹ 64.81 crore from the sale of shares of employees of IPCL and ₹15.99 crore as balance amount of realization from the Offer for Sale in ONGC.

In January 2006, the Government realized a sum of ₹ 1,567.60 crore from the sale of 8 per cent of equity out of its shareholding of 18.28 per cent in Maruti Udyog Limited (MUL), to public sector financial institutions and banks. The average realization was ₹ 678.24 per share. Further, ₹ 2.08 crore was received by the Government in March 2006, from the sale of 31,507 equity shares in MUL to officers/ employees of MUL at a price of ₹ 660 per share.

During the year 2007-08, the Government realized a sum of ₹ 2,366.94 crore from the sale of 10.27 per cent equity in MUL to Public Sector Financial Institutions, Public Sector Banks, and Indian Mutual Fund. The average realization per share was ₹ 797.49. Further, Government realized ₹ 994.82 crore from sale of 10 per cent paid up equity capital each of Power Grid Corporation of India Ltd, and Rural Electrification Corporation India Ltd. out of its shareholding of 100 per cent.

During the year 2009-10, Government realized an amount of ₹ 23,552.93 crore from sale of 5 per cent equity in NHPC Ltd., 10 per cent in Oil India Ltd., 5 per cent in NTPC Ltd, 5 per cent in REC Ltd, and 8.38 per cent in NMDC.

EXPENDITURE

The Department of Expenditure has taken a number of measures to improve the systems and procedures of public financial management, thereby promoting the cause of good governance. The Prime Minister's Thrust Areas included five planks of institutional reforms, viz. decentralization, simplification, transparency, accountability and e-governance. The Department of Expenditure and Planning Commission had jointly prepared the first ever outcome Budget for the year 2005-06. Thereafter, a series of guidelines were issued to all ministries/departments on preparation of Outcome Budget and Performance Budget by individual ministries. In a further refinement of the process, fresh guidelines were issued for integration of Outcome Budget and Performance Budget documents into single document. Outcome

Budget has become an integral part of the budgeting process since 2005-06. Latest guidelines issued in January, 2010 emphasized that the projected physical output should be disaggregated by sex, wherever possible and appropriate to where delivery is to individuals, indicators of performance relating to individuals should also be sex disaggregated.

STAFF INSPECTION UNIT

The Staff Inspection Unit (SIU) was set up in 1964 with the objective of securing economy in the staffing of Government Organisations consistent with administrative efficiency and evolving performance standards and work norms. In the changed scenario and keeping in view the Government emphasis on better governance and improved delivery of services, the role of SIU has been re-defined. The SIU has now been positioned to act as catalyst in assisting the Ministries and autonomous organisations in improving their organizational effectiveness, through improved organizational structure/processes, optimum utilization of resources and focusing on monitorable, measurable outcome and specific deliverables.

Chief Adviser (Cost)

Office of Chief Adviser Cost (CAC) is one of the divisions functioning in the Department of Expenditure, Ministry of Finance. The office is responsible for advising the Ministries and Government Undertakings on cost accounts matters and to undertake cost investigation work on their behalf. It is a professional agency staffed by Cost/Chartered Accountants.

The office of Chief Adviser Cost is dealing with matters relating to costing and pricing, industry level studies for determining fair prices, studies on user charges, central excise abatement matters, cost-benefit analysis of projects, studies on cost reduction, cost efficiency. Appraisal of capital intensive projects, profitability analysis and application of modern management tools evolving cost and commercial financial accounting for Ministries/Departments of Government of India.

It was set up as an independent agency of the Central Government to verify the cost of production and to determine the fair selling price for Government Departments including Defence purchases in respect of the cases referred to. The role of the Office was further enlarged and extended to fixing prices for a number of products covered under the Essential Commodities Act, such as, Petroleum, Steel, Coal, Cement, etc. under the Administered Price Mechanism (APM). Since cost/pricing work in the Ministries increased significantly, various other Ministries/Departments started to have their in-house expertise by seeking posting of officers for work requiring expertise in cost/commercial accounts matters. In the post-liberalization era, the office is receiving and conducting studies in synchronization with liberalization policy of the Government in addition to the traditional areas of cost-price studies.

Chief Adviser Cost Office, is also the cadre controlling office for "Indian Cost Accounts Service" (ICoAS) up to Adviser (Cost) level and looks after training requirements of the officers for continuous up-gradation of their knowledge in addition to rendering professional guidance to the ICoAS officers working in different participating organizations.

The major areas of professional functions of the office of the Chief Adviser Cost are as under: -

- (i) Assisting all Central Government Ministries/Departments/ Organizations/ in solving complex Price/Cost related issues, in fixing fair prices for various services/products and rendering advice to various Ministries/Departments in cost matters.
- (ii) Examination/Verification of claims between Government Departments/ Public Sector undertakings and suppliers, arising out of purchase contracts.
- (iii) Determining prices of products and services supplied to Government, in order to enable Government Departments to negotiate the prices with the supplying organizations.
- (iv) Unit specific as well as industry level studies for determining cost/fair prices and making recommendations for fair prices/rates for products and user charges for services, revision of these charges and also to determine reasonableness of prices charged, duty structure, etc.
- (v) Valuation of assets and liabilities of business taken over and shares of public sector undertakings.
- (vi) Functioning as Chairman/Members of Committee constituted by Government/ different Departments related to Cost/financial and Pricing matters.
- (vii) Cost and performance audit of industrial undertaking.
- (viii) Concurrent Internal audit of escalations claims of urea manufacturing units, determined by Fertiliser Industry Coordination Committee.
- (ix) Subsidy determination and verification of claims.
- (x) Cost Accounting System for departmental undertakings/autonomous bodies.
- (xi) Time and Cost Overruns of major projects. Efficiency and Competitiveness studies.
- (xii) Arbitrator in resolving pricing disputes.
- (xiii) Advise on matters relating to determination of abatement rate for purposes of Central Excise.

Till March 2010, total 8164 number of studies/reports were completed by the office of Chief Adviser Cost and out of these 79 reports were completed during the year 2009-10. The studies completed during the year varied widely in nature.

During the year, the office of Chief Adviser Cost provided its services to various ministries like Petroleum and Natural Gas, Chemicals and Fertilizers, Agriculture, Commerce, Textiles, Defence, Home, Railways, Health and Family Welfare Ministry of Urban Development and Corporate Affairs etc. Some of the major studies undertaken were Study of Under-recovery of Oil Marketing Companies on petroleum products, Concurrent cost audit of escalation claims of Urea Fertilizer units, Reimbursement of loss under Price Support Scheme and Market Intervention Scheme, Fixation of final prices of Traction and Electronics Equipment supplied by BHEL to Railway factories, Common hourly rate and overhead percentages for Government of India Printing Presses, Ascertainment of cost of Multipurpose National Identify Card (MNIC), cost of production of bogies used for manufacturing of Railway Wagons for supply to the Indian Railways etc. Through these studies, savings for several hundred crores of rupees have been achieved.

The officers are functioning as Chairman/Members of Committee constituted by Government/different Departments related to Cost/Financial and Pricing matters

like National Pharmaceuticals Pricing Authority, Fertilizer Industry Coordination Committee, Department of Fertilizers and various Inter-ministerial committees constituted by different departments.

Central Assistance to States

Central Assistance to States for their Annual Plans including Normal Central Assistance that is not tied to specific projects are released. Further, Additional Central Assistance is provided for specific schemes/project such as Externally Aided Projects, Jawaharlal Nehru National Urban Renewal Mission, Accelerated Irrigation Benefit Programmes, Accelerated Power Development and Reforms Programme, National Social Assistance Programme (including Annapurna), Backward Region Grant Fund, Nutrition Programme for Adolescent Girls (NPAG), National E-Governance Action Plan, Tsunami Rehabilitation Programme, Long Term reconstruction of assets damaged during 2005-06 floods and ACA for other specific schemes/projects of the States. Special Plan Assistance is also provided to States. Special Central Assistance for Hill Areas/Western Ghats Development Programmes and Special Central Assistance for the Border Areas Development Programme.

Central Plan

In respect of development schemes and projects, the focus has been on improving the quality of development expenditure through better project formulation, emphasis on outputs, deliverables, impact assessment, projectisation (Mission approach) and convergence.

During the period from 1st January to 31st December 2009, 51 meetings of the Expenditure Finance Committee (EFC) chaired by Secretary (Expenditure) considered 93 Plan Investment Proposals/Schemes of various Ministries/Departments costing ₹121227.42 crore. Also, 7 meetings of Public Investment Board (PIB) were held and 13 projects with a capital outlay of ₹ 7087.10 crore were considered and out of this 6 cases were recommended by the competent authority as per the following details :-

S.No.	Ministry/Department	No.of projects recommended for approval	Cost (₹ crore)
1.	Power	1	421.01
2.	Fertilizer	4	5281.04
3.	Coal	1	846.06
Total		6	6548.11

Financial restructuring of Central PSUs on the recommendations of Bureau for Restructuring of Public Sector Enterprises (BRPSE) are also done. Modalities for financial assistance to CPSEs, quantification of IandEBR generation for preparation of budget, finalizing modernization of Plants and Equipments to ensure more efficiency in production are worked out.

At micro level, issues relating to food, fertilizers and petroleum subsidies. including their quantification and extension of assistance to the Stake holders are dealt with. Concerned Department/Ministry, are actively consulted in shaping up future subsidy policy of the Government to ensure effective targeting coupled with minimum burden on the Government.

During 2009-10, an amount of ₹ 65736.50 crore was released for assistance to various schemes and budget provision of ₹ 70156.25 crore has been made for the year 2010-11.

FINANCE COMMISSION DIVISION

Finance Commission Division undertakes processing of and follow up action on the various recommendations and suggestions of Finance Commission's including issue of Presidential/Executive Orders and sanctions. Under Article 280 of the constitution, a Finance Commission is to be constituted every fifth year or at such earlier time by the President on specified aspects of Centre-State Fiscal relations. The recommendations of the Commission together with an Explanatory Memorandum as to the action taken thereon, are laid before each House of Parliament.

The award period of the 12th Finance Commission (FC-XII) ended on 31.03.2010 and the award period of the 13th Finance Commission (FC-XIII), 2010-15, commenced on 01.04.2010. The FC-XIII was appointed by President on 13th November 2007 under the Chairmanship of Dr. Vijay Kelkar. It submitted its report on December 30, 2009. The FC-XIII report covering the five year period commencing 1st April 2010 together with the Explanatory Memorandum as to the action taken on the recommendations of the Finance Commission was laid on the Table of both the Houses of the Parliament on 25.2.2010.

The Twelfth Finance Commission

Grants-in-aid : The 12th FC in its report for the period 2005-10 had recommended a total transfer of ₹ 7,55,752 crore (share in central taxes and duties of ₹ 6, 13, 112. crore and grants-in-aid of ₹ 1,42,640 crore) to States. The grants-in-aid recommended by 12th FC under various sectors and amounts released are as under:

(₹ in crore)

Sl.No.	Purpose of Grant	Allocations by 12th FC during 2005-10	Released (as on 31.03.2010)
1.	Local Bodies grants	25,000	23,759
2.	Centre's share in Calamity Relief	16,000	16,000
3.	Non-Plan revenue deficit grants	56,856	56,856
4.	Grant for education	10,172	8,701
5.	Grant for health	5,887	4,769
6.	Grant for maintenance of roads and bridges	15,000	13,569
7.	Grant for maintenance of public buildings	5,000	3,776
8.	Grant for maintenance of forest.	1,000	953
9.	Grant for heritage conservation.	625	570
10.	Grant for State-specific needs	7,100	6,153
Total		1,42,640	1,35,106

Debt Consolidation and Relief Facility (2005-10)

Debt Consolidation and Relief Facility (DCRF), formulated as per recommendations of Twelfth Finance Commission had two components - consolidation of central loans (from Ministry of Finance); and debt waiver. FC-XII had recommended that the Central loans to States contracted till March 31, 2004 and outstanding on March 31, 2005 (estimated by FC-XII at ₹ 128,795 crore) may be consolidated and rescheduled for a fresh term of 20 years (resulting in repayment in 20 equal installments), and an interest rate of 7.5 per cent per annum be charged on them. The year 2009-10 was the last year of the award period of the 12th Finance Commission. So far, 26 out of 28 States (except West Bengal and Sikkim) have enacted FRBM Acts. Central loans (from Ministry of Finance) of 26 States have been consolidated to the extent of Rs. 113601.14 crore. Details of Debt relief and interest relief provided under Debt Consolidation and Relief Facility (DCRF) to the 26 States during 2005-10 are as under :

(₹ in crore)

Sl. No.	Year	Debt relief	Interest Relief
1.	2005-06	3984.35 (15)	4392.03 (21)
2.	2006-07	5007.51 (23)	3995.22 (24)
3.	2007-08	5514.02 (23)	3903.01 (25)
4.	2008-09	5153.82 (20)	3452.59 (26)
5.	2009-10	2379.65 (8)	2945.67 (26)
Total		22039.35	18688.52

Note : Figures in parenthesis show the number of states availing the benefits

The Thirteenth Finance Commission

Main recommendations of the FC-XIII relate to the sharing of net proceeds of Union taxes between Centre and States, grants-in-aid of revenue of States under Article 275, Goods and Services Tax (GST), financing of relief expenditure and roadmap for fiscal consolidation.

Salient recommendations of the Thirteenth Finance Commission (FC-XIII)

(i) **Sharing of Union Taxes :** The Commission has recommended that the share of States in the net proceeds of Union taxes may be fixed at 32 per cent. It has also recommended on the inter-se distribution of the States' share amongst the States. The total transfers to the States on the revenue account be subjected to an indicative ceiling of 39.5 per cent of the gross revenues receipts of the Centre.

(ii) Grants-in-Aid of Revenues of States under Article 275 of the constitution

- **Non Plan Revenue Deficit Grant:** FC-XIII has assessed the revenues and expenditure of the States for the period 2010-15 and has projected the deficit for each State after taking into account the amount of share in Central taxes for that State. It has recommended a grant of ₹ 51800 crore to meet this deficit for eight States. FC-XIII has also recommended a performance incentive grant of ₹ 1500 crore for three special category States of Assam, Sikkim and Uttarakhand that have graduated out of non Plan Revenue Deficit.

- **Grant for Elementary Education :** After assessing the requirement of providing elementary education for each State based on the Sarva Shiksha Abhiyan norms and recommended to provide a grant of ₹ 24068 crore equivalent to 15 per cent of the assessed requirement.
- **Environment Related Grants :** FC-XIII has recommended three grants under this category of ₹ 5000 crore each aggregating ₹ 15000 or as under:
 - a) forest grant
 - b) promotion for renewable energy
 - c) water sector
- **Grants for Improving Outcomes :** FC-XIII has recommended six grants under this category aggregating to ₹ 14446 crore as under:
 - a) an incentive grant for reduction in infant mortality - ₹ 5000 crore,
 - b) improved delivery of justice for Lok Adalats and Legal Aid, Alternate Dispute Resolution Centres, Heritage Court Buildings, State Judicial Academy and training of judicial officers and public prosecutor - ₹ 5000 crore,
 - c) grant for Unique Identification (UID) programme - ₹ 2989. 10 crore,
 - d) District Innovation Funds - ₹ 616 crore,
 - e) improving statistical systems at district and State levels - ₹ 616 crore,
 - f) setting up database of employees and pensioners - ₹ 225 crore.
- **Grants for maintenance of Roads and Bridges :** FC-XIII has assessed the requirement of ordinary repairs of roads in a State and has recommended grant of ₹ 19,930 crore equivalents to 90 per cent of the assessed requirement for PMGSY roads and 50 per cent of the assessed requirement for other roads, for four years of the award period starting 2011-12.
- **State Specific grants:** FC-XIII has recommended grants aggregating to ₹ 27945 crore for various state specific needs of the States subject to States meeting conditions stipulated by FC-XIII.

The Government has accepted above recommendations.

- (iii) **Goods and Services Tax:** FC-XIII has recommended a model GST structure that includes features such as single rate, zero rating of exports, inclusion of various indirect taxes at the Central and State level in GST ambit, major rationalisation of the exemption structure, etc. The Commission has recommended a grant of ₹ 50,000 crore for implementation of GST as per the recommended model. This grant is to be disbursed initially in the form of compensation for loss due to implementation of GST and residual amount to be distributed amongst States in the terminal year of the awarded period as per the devolution formula. It has also recommended administrative structure for implementation and monitoring of this grant. The Government has accepted these recommendations in principle.

(iv) **Local Bodies**

- FC-XIII has recommended a basic grant and a performance grant for local bodies quantified, based on a percentage of the divisible pool of the preceding year.

Basic grant amounts to 1.5 per cent of the size of divisible pool in the preceding year. Performance grant for 2011-12 is 0.5 per cent of the divisible pool of the preceding year and for subsequent years in the award period, 1 per cent of the divisible pool of the preceding year.

- FC-XIII has also recommended a separate special area basic grant of ₹ 20 per capita, carved out of the total basic grant, for every year in the award period for Schedule V and Schedule VI areas and areas excluded from Part IX and IXA of the Constitution. For these areas, it has recommended a special area performance grant of ₹ 10 per capita for 2011-12 and ₹ 20 per capita for subsequent years of the award period.

- The performance grants are to be released if the States meet conditions specified by FC-XIII.

- FC-XIII has estimated total grant recommended for the local bodies aggregates to ₹ 87519 crore over the award period. The Commission has also recommended distribution of the grants between urban and rural areas and the inter-se distribution between States.

(v) Disaster Relief

- FC-XIII has recommended merger of the National Calamity Contingency Fund (NCCF) into National Disaster Response Fund (NDRF) and merger of Calamity Relief Fund (CRF) into State Disaster Response Fund (SDRF) with effect from 1 April 2010 and transfer of the balances in the existing funds into the new funds. NDRF and SDRF are under the Disaster management Act, 2005.

- It has 75 per cent of the SDRF requirement for general category states and 90 per cent for special category states that Centre will provide through a grant to the States. FC-XIII has also recommended a grant of Rs. 525 crore for capacity building. Overall, to meet the Central share of SDRF and for capacity building, the Commission has recommended a grant of ₹ 26373 crore. It has mandated all states to follow the required accounting practices to properly account for relief expenditure. The Government has accepted recommendations on local bodies and disaster relief.

(vi) Fiscal Roadmap

- FC-XIII has specified a combined debt target of 68 per cent of gross domestic Product (GDP) to be met by 2014-15.

- It has worked out a roadmap for Fiscal Deficit (FD) and Revenue Deficit (RD) for the award period. For Centre, it has recommended RD to be eliminated and FD to be brought down to 3 per cent of GDP by 2013-14. For States, the Commission has worked out fiscal roadmap for each State depending on its current deficit and debt levels. The States are required to eliminate RD and achieve FD of 3 per cent of their respective Gross State Domestic Product (GSDP) during the Commission's award period in stages, in a manner that all the States would eliminate RD and achieve FD of 3 per cent of GSDP latest by 2014-15.

- The borrowing limits of the States should be fixed by the Centre in line with these targets. The Government has accepted these recommendations in principle.

(vii) Debt Relief to States

- FC-XIII has recommended that the interest rates on loans from National Small Savings Fund (NSSF) to States contracted till the end of 2006-07 and outstanding as at the end of 2009-10 be reset at interest rate of 9 per cent. This is estimated to provide relief of Rs. 13517 crore during the award period and Rs.28360 crore over the entire period, till the maturity of the last loan. Government has accepted it in principle.
- FC-XIII has recommended write-off of Central loans advanced to States by central ministries other than Ministry of Finance under Centrally Sponsored Schemes/ Central Plan Schemes outstanding as at the end of 2009-10.
- The Commission has also recommended extension of the debt consolidation facility recommended by the FC-XIII to States that have not yet availed this benefit. The loans contracted by these states till 31st March 2004 and outstanding as at the end of the year preceding the year in which FRBM Act is put in place, shall be consolidated as per the same terms and conditions as recommended by FC-XII.
- All the above mentioned debt relief is available to States only if they amend/ legislate FRBM Acts in accordance with the recommendations of the Commission. The Commission has also recommended that the States will be eligible for the state specific grants only if they comply with this condition.
- Government has accepted recommendations relating to write-off of the Central loans to States, extension of the debt consolidation schemes recommended by the Twelfth Finance Commission to States that did not avail the benefit till now, and the conditions laid down by the Commission for availing these benefits.

CONTROLLER GENERAL OF ACCOUNTS

According to Article 150 of the Constitution of India, the accounts of the Union and the States shall be kept in such form as the President may on the advice of Comptroller and Auditor General of India prescribe. This function of the President has been allocated to Controller General of Accounts in terms of Article 77 (3) of Constitution of India. The Controller General of Accounts (CGA) is the principle advisor to the Government of India on accounting matter and is responsible for establishing and maintaining a sound and efficient accounting and financial reporting system.

Principles and Form of Accounts: The CGA prescribes general principles and form of accounts of government relating to Union as well as State governments and frames rules and manuals relating thereto. In exercise of this power, CGA is entrusted with the responsibility of framing and administering Government Accounting Rules, Central Government Accounts (Receipts and Payments) Rules, Central Treasury Rules, Accounting Rules for Treasuries, Account Code for State Accountant Generals, Account Code – Vol III, List of Major and Minor Heads of Account, Civil Accounts Manual, Suspense Manual, Drawing and Disbursing Officers Manual and Inspection Code.

Budgetary Control, Payments, Receipts Collection and Accounting : The CGA, through Chief Controller/Controller of Accounts and their Pay and Accounts Offices, carries out the budget control, payments, receipts collection and accounting functions of the Union. The CGA also prescribes the banking arrangement for government transactions and closely monitors movement of cash through a network of over 20,000

bank branches, authorised to handle government transactions, into and out of the government cash balance with Reserve Bank of India.

Financial Reporting : The CGA provides regular feedback to the Finance Minister and other line Ministries on the status of Government finances. He submits a critical fiscal analysis to the Finance Minister every month and releases data on Central Government Operations on the Internet in compliance with the Special Data Dissemination Standards (SDDS) of IMF.

Technical Advice on Accounting Matters : The CGA provides advice to all Ministries/ Departments and State Governments on various accounting matters. The advice rendered by the CGA covers aspects related to maintenance of accounts, accounting procedures for new schemes/programmes or activities, collection of receipts and its crediting into Government account, release of payment and its accounting, creation and operation of funds within Government accounts, banking arrangements of making payments and collecting receipts, etc.

Disbursement of pension: The CGA is responsible for disbursement and accounting of pension payments to Government employees retiring from all civil ministries. The functions are discharged through Central Pension Accounting Office (CPAO), which was created with the primary objective of simplifying the procedure of pension disbursement and accounting and providing better quality service to the pensioners. The CPAO is the central budgeting and accounting unit for the civil pensions. It functions as a single point interface between the Government, the banks and pensioners. With the introduction of modern technology, CPAO is able to serve over 6,00,000 pensioners spread all over the country through the network of bank branches specially authorised for pension disbursement.

Quality Assurance Wing: Consequent upon the decision to introduce *Sevottam* in Civil Accounts Organisation at the earliest, the Inspection Wing of the office of CGA, whose main duty was to conduct regulatory/compliance inspections of Pr. Accounts Offices and Pay and Accounts Offices, was renamed as 'Quality Assurance Wing' w.e.f. 16th April, 2010. The revised roles and responsibilities of the Quality Assurance Wing is to improve the quality in functioning of the departmentalized accounting units and to guide the Internal Audit Wings of the line Ministries in conducting 'Quality Audits' of the Pay and Accounts Offices and Drawing and Disbursing Offices. The Quality Assurance wing has, keeping in line with its new roles and responsibilities developed a Checklist of control points for conducting Internal Audit of PAOs of the line Ministries. A similar checklist for internal audit of DDOs is being finalized. The Quality Assurance Wing is also geared to assist the Steering Group set up by the Controller General of Accounts for implementing *Sevottam* in the Civil Accounts Organisation.

Capital Restructuring and Disinvestment of PSUs: With the setting up of Board of Reconstruction of Public Sector Enterprises, the Capital Restructuring Cell in the Office of Controller General of Accounts has been offering its comments on the proposals for consideration of the Board as well as on proposals for restructuring received from administrative Ministries.

Core Accounting Solution : The office of CGA has taken initiative to achieve Core Accounting Solutions in phases. This program aims at a seamless electronic data transfer related to payment and receipt information, accounting information and reconciliation information in a secure environment. This will establish a centralized

database to enable the organization to act as a single window for accessing all information related to accounts and other MIS data for decision making. By using Information Technology for compressing the timelines for submission of audited accounts and ensuring real time reporting of revenue/expenditure data, financial management in Government is expected to improve significantly.

Human Resource Development: The CGA manages the cadre of the Indian Civil Accounts Service (ICAS) and the entire accounts personnel deployed in civil ministries and is responsible for the entire gamut of personnel management including their recruitment, transfers, promotions, training, and capacity building both within the country as well as abroad, and periodical review of cadre strength and distribution.

Training: Founded in 1992, the Institute of Government Accounts and Finance (INGAF) is defined by its excellence as the training arm of the Controller General of Accounts (CGA) specializing in professional training in modern, technology enabled government accounting and financial systems. Its changing mandate over the years reflects the growing role of INGAF in an era of super-specialization that calls for professional skills being continuously and consistently upgraded. Its curriculum has been diversified to fast-track the changing environment of public expenditure management and, to focus on cutting edge capacity building in a gamut of areas related to financial management, information technology, fiscal and budgetary reforms, internal audit and leadership and change management.

Parliamentary Financial Control: Monitoring Cell in office of CGA is entrusted with monitoring the progress of submission by Ministries of remedial/corrective Action Plan taken, keeping in mind the recommendations of Public Accounts Committee (PAC), as contained in their reports from time to time. It is further entrusted with the task of coordination, collection and monitoring the submission of Action Taken Notes on various Paras contained in CandAGs Report (Civil). Besides it is also responsible for coordination, collection and timely submission to the Public Accounts Committee of explanatory Notes by Ministries/Departments on "excess expenditure" and "savings" of ₹ 100 crores and above, appearing in the annual appropriations accounts. In addition, the Monitoring Cell monitors the receipt of Utilization certificates from Grantee Institutions by various Ministries/Departments of Government of India.

Central Plan Schemes Monitoring System : CPSMS is a Central Sector Plan Scheme being implemented by the Office of Controller General of Accounts. The Scheme aims at establishing a suitable On-line Management information System and Decision Support System for Plan Schemes of Civil Ministries of Government of India. The system is envisaged to track the fund disbursement from about 1000 Central Plan and Centrally Sponsored Schemes and ultimately report utilization under these schemes at different levels of implementation on a real time basis.

CPSMS is a web-enabled application and all Civil Ministries/Departments have to register the detail of agencies on this portal for releasing grants/funds. Thereafter, Sanction IDs are generated for releasing the payments. The system has helped in creating a comprehensive and permanent master data bank of all the agencies receiving grants and detail of releases made from the Government of India. The system can generate Ministry-wise, Scheme-wise, State-wise, Agency-wise releases made under Plan scheme. The website address is www.cga.nic.in.

NATIONAL INSTITUTE OF FINANCIAL MANAGEMENT

In 1994, the Government of India established the National Institute of Financial Management (NIFM) as an autonomous organization under the Ministry of Finance to train directly recruited probationers belonging to various group 'A' Accounting Services. The Union Finance Minister, the Minister of State in the Ministry of Finance, the Secretary to the Government of India, Department of Expenditure and the heads of various accounting services, are ex-officio members of the Registered Society for providing broad policy guidelines. Currently the Institute runs three long-term programmes - Professional Training Course of 44 weeks for newly recruited probationers of Accounting Services; a one year Diploma Course in Govt. Accounts and Internal Audit and a two-year Post-Graduate Diploma in Business Management (Financial Management) programme for officers of Central Government, the State Government, Public Sector Undertakings and other Organizations under Government. In addition, NIFM also conducts short term programmes for Central Government, State Governments, PSUs, Autonomous Bodies and Officers from different foreign countries also participate in the programmes. NIFM also provides consultancy services to various departments and organizations of the Govt. of India, State Government, PSUs, Autonomous Body, Universities and foreign courtiers.

REVENUE

The Department of Revenue exercises control in respect of revenue matters relating to direct and indirect Union taxes, through two statutory Boards, namely, the Central Board of Direct Taxes and the Central Board of Excise and Customs. The Department is also entrusted with administration and enforcement of controls and regulatory measures provided in the enactments concerning central sales tax, stamp duties, forfeiture of properties of smugglers and foreign exchange manipulators, and other fiscal statutes. Control over production and disposal of opium and its products is also vested with this Department.

DIRECT TAXES

The Central Board of Direct Taxes (CBDT) is the apex body entrusted with the responsibility of administering direct tax laws in India. The CBDT consists of a Chairman and six members. Various Chief Commissioners of Income tax stationed all over the country supervise collection of direct taxes and provide taxpayer services. With modern information technology as a key driver, the CBDT is implementing a comprehensive computerization programme in the Income Tax Department. The Programme aims to establish a taxpayer friendly regime, increase the tax base, improve supervision and generate more revenue for the Government.

Revenue collection from Direct Taxes has been growing consistently for the last five years. The Direct Tax collections as a percentage of GDP has grown from 2.68 per cent in 1998-99 to 6.27 per cent in 2008-09. As a result of improved tax administration and better tax compliance direct taxes collection is displaying positive trends. During 2003-04, the direct taxes collection was ₹ 1,05,088 crore and for the year 2008-09, it reached to ₹ 3,33,818 crore (provisional). The collection from TDS till 31 March 2009 was ₹ 1,30,172 crore which is very healthy growth rate of around 25 per cent over corresponding figure last year. The Department has collected ₹ 10,016 crore from arrear demand during 2008-09 at a growth rate of 10.42 per cent against a corresponding collection of ₹ 9071 crore last year.

Direct Taxes Slabs for 2010-11

A. Individual, Hindu undivided family, association of persons, body of individuals, artificial juridical pension

The rates of income-tax in the case of every individual or Hindu undivided family or every association of persons or body or individuals, where incorporated at not, or every artificial juridical person referred to in sub-clause (vii) of clause (31) of section 2 of the income-tax Act (not being a case to which any other Paragraph of Part III applies) have been specified in Paragraph A of Part III. The basic exemption limits and the rates of income-tax will continue to be the same as those specified for assessment year 2011-11. However the tax slabs are revised as under :-

Upto Rs. 1,60,000	Nil
₹ 1,60,001 to ₹ 5,00,000	10 per cent
₹ 5,00,001 to ₹ 8,00,000	20 per cent
Above ₹ 8,00,000	30 per cent

In the case of every individual, being a woman resident in India, and below the age of sixty-five years at any time during the previous year:-

Upto ₹ 1,90,000	Nil
₹ 1,90,001 to ₹ 5,00,000	10 per cent
₹ 5,00,001 to ₹ 8,00,000	20 per cent
Above ₹ 8,00,000	30 per cent

In the case of every individual, being a resident in India, who is of the age of sixty-five years or more at any time during the previous year:-

Upto ₹ 2,40,000	Nil
₹ 2,40,001 to ₹ 5,00,000	10 per cent
₹ 5,00,001 to ₹ 8,00,000	20 per cent
Above ₹ 8,00,000	30 per cent

No surcharge shall be levied in the cases of persons covered under paragraph-A of part-III of the First Schedule.

B. Co-operative Societies

In the case of co-operative societies, the rates of income-tax have been specified in Paragraph B of Part-III of the First Schedule to the Bill. These rates will continue to be the same as those specified for assessment year 2010-11, No surcharge will be levied.

Education Cess

Education Cess on 'Income tax' and 'Secondary and Higher Education Cess' shall be continued by a surcharge at the rate of two and one account, respectively, of income tax including surcharge wherever applicable, in the cases of persons not resident in India including companies other than domestic company.

New Initiatives

- Various steps have been taken to maintain the momentum of tax collection. Some of them are:
- Tax machinery is being made more tax payer friendly by expeditious issue of refunds, response to the grievance of the tax payers etc
- Monitoring of advance tax payments of top taxpayers by the senior officers of the Department
- Further computerization of the Departmental business processes and database for linking information and reporting of high value transactions to the tax authorities.
- Quoting of PAN being made mandatory in most of the financial transactions
- Operation *Sampark* was launched in August-September, 2009 to make contact with the Government DDOs, to sensitize them about TDS matters.
- Tax benefits for New Pension System: The New Pension System has become operational since 1 January 2004 and is mandatory for new recruits to the Central Government Service from 1 January 2004, A new clause (44) has been inserted in Section 10 of the Income tax Act so as to provide that any income received by any persons on behalf of the New Pension System Trust established on 27 February, 2008 under the provisions of the Indian Trust Act, 1882 shall be exempt form income tax.

INDIRECT TAXES

Customs, Union Excise and Service Tax duties are the major sources of indirect tax revenue. The revenue for the year 2008-09 (Actual) in respect of Customs, Union Excise duties and Service tax is ₹ 99,850- crore, *₹ 1, 09,343- crore and ₹ 60,702- crore respectively. (*inclusive of revenue of ₹ 1,246 crore from Cesses administered by other than Department of Revenue. The Provisional revenue collections between April-November 2009 in respect of Custom, Central Taxes and Service tax are ₹ 52,011 crore, 61,020 crores and 32,793 crore.

CHANGES IN BUDGET 2009-10

CUSTOMS

The peak rate of Customs Duty on non-agricultural products, which was reduced to 10 per cent in 2007-08 and continued in 2008-09, was retained at 10 per cent in the Budget 2009-10 announced on 8 July 2009. The other major *ad valorem* rates of 5 per cent and 7.5 per cent were also retained However, some sector specific changes in the rates of duty were made as follows:

Capital Goods

The Concessional rate of Basic Customs duty of 5 per cent on specified machinery for tea, coffee and rubber plantations which was earlier available upto 30.04.2009, was restored for one more year i.e. upto 06.07.2010. Basic Customs Duty on 'mechanical harvester' for coffee plantation was reduced from 7.5 per cent to 5 per cent. Such harvesters were also exempted from CVD by way of Excise Duty exemption. On permanent magnets for manufacture of PM synchronous generators of more

then 500 KW for use in wind operated electricity generators, the Basic Customs Duty was reduced from 7.5 per cent to 5 per cent.

Export Promotion

Full exemption from Customs Duty available to specified raw materials/Inputs Imported by manufacturer-exporters of sports goods was extended to five more items. Similarly, full exemption from Customs Duty available to specified raw materials and equipment imported by manufacturer-exporters of leather goods, textile products and footwear industry was extended to some additional items. The Basic Customs Duty on unworked corals was also reduced from 5 per cent to Nil.

Electronics Hardware

Full exemption from Basic Customs Duty available to set-top boxes was withdrawn and Basic Customs Duty of 5 per cent was reimposed. Basic Customs Duty on LCD panels for manufacture of LCD televisions was reduced from 10 per cent to 5 per cent. Full exemption from 4 per cent special CVD on parts for manufacture of mobile phones and accessories was reintroduced for one year i.e. upto 6.7.2010.

Health Care

Basic Customs Duty on nine specified drugs and bulk drugs for their manufacture, and one vaccine was reduced from 10 per cent to 5 per cent. CVD on these items was also exempted by virtue of full exemption from Excise Duty. Also, the Basic Customs Duty on Patent Ductus Arteriosus/Atrial Septal Defect occlusion devices was reduced from 7.5 per cent to 5 per cent with Nil CVD by way of Excise Duty exemption. Similarly, Basic Customs Duty on Artificial Heart (left ventricular assist device) was reduced from 7.5 per cent to 5 per cent. This device attracts Nil excise duty/CVD.

Textiles

Basic Customs Duty on cotton waste and wool waste was reduced from 15 per cent to 10 per cent.

Information Technology Software

On packaged or canned software, CVD exemption has been provided on the portion of the value which represents the consideration for transfer of the right to use such software, subject to specified conditions. The portion of the value is leviable to service Tax as 'Information Technology Software Service'.

Precious Metals

Customs Duty on serially numbered gold bars (other than tola bars) and gold coins was increased from ₹ 100/- per 10 gm to ₹ 200/- per 10 gm. On other forms of gold, the Customs Duty was increased from ₹ 250/- per 10 gm to ₹ 500/- per 10 gm. Customs Duty on silver was increased from ₹ 500/- per Kg to ₹ 1,000/- per Kg.

Miscellaneous

- Basic Customs Duty on rock phosphate was reduced from 5 per cent to 2 per cent.
- CVD exemption on Aerial Passenger Ropeway Projects was withdrawn. Consequently, such projects attract applicable CVD.
- Basic Customs Duty exemption for concrete batching plants of capacity 50 cu.m per hour or more has been withdrawn. Such plants will now attract 7.5 per cent basic duty.
- Basic Customs Duty on inflatable rafts, snowskis, water skis, surfboats and sail boards and other water sports equipment was fully exempted.

- Basic Customs Duty on bio-diesel was reduced from 7.5 per cent to 2.5 per cent.

Customs Act, 1962

These Regulations have been framed by the Development in pursuance of the recommendations of the Public Accounts Committee (PAC), and consequent to the amendment of the customs Act, 1962 (sub-section (2) to section 141 of the Customs Act, 1962). The salient features of the regulations are given below.

- (i) The regulations are applicable to all Customs Cargo Service Providers' (CCSPs) that is to say all persons operating in a customs area and engaged in the handling of import/export goods. These include the Custodians holding custody of import/export goods and handling such goods and all persons working on behalf of such custodians such as fork lift or material handling equipment operators, etc. It also covers consolidators/break bulk agents and other persons handling imported/export goods in any capacity in a customs area.
- (ii) The regulations provide for various responsibilities and conditions for different kinds of CCSPs. One set of conditions prescribed would apply to the CCSPs to be approved as custodians of imported/export cargo and thus handle goods in customs areas. The other set of conditions apply to those persons who only provide certain services on their own or on behalf of the custodians referred above. .
- (iii) These regulations also provide for safety and security, responsibility for pilferage of goods under custody of CCSP, disposal of uncleared, unclaimed or abandoned goods within the prescribed time limit, requirement for publishing or display of the schedule of charges for the activities undertaken in respect of imported/export goods. These requirement and responsibilities on CCSPs have been specified with the overall objective of expeditious clearance of goods, reduction of dwell time, transaction cost to the import/export trade and to safeguard Government revenue.

Amendments in the Customs Tariff Act, 1975

- 1) Section 3 of the Customs Tariff Act, 1975 is being amended so as to provide that where the Central Government has fixed tariff value for collection of central excise duty on an article produced or manufactured in India, the value of a like imported article shall be such tariff value.
- 2) Section 8B and 8C of the Customs Tariff Act, 1975 are being amended retrospectively so as to extend the machinery provisions of the Customs Act, 1962 to safeguard duties levied under these sections.
- 3) Section 9 of the Customs Tariff Act, 1975 is being amended retrospectively so as to extend the machinery provisions of the Customs Act, 1962 to countervailing duty levied under this section.
- 4) Section 9A of the Customs Tariff Act, 1975 is being amended to-
 - (a) provide that the margin of dumping in relation to an article exported by an exporter or producer shall be determined on the basis of records maintained by such exporter or producer and on the basis of information available in the case of non-cooperating exporter or producer.
 - (b) extend retrospectively the machinery provisions of the Customs Act, 1962 to anti-dumping duties levied under this section.
- 5) Para (A) in Note 2 of Section XI of the Customs Tariff Act, 1975 is being

substituted by a new para so as to align it with the parallel provision in the Central Excise Tariff Act, 1985.

- 6) Notification No. 40/2006-Customs dated 01.05.2006 is being amended retrospectively from its date of issue so as to,
- (a) allow facility of rebate under rule 18 or rule 19 of Central Excise rules, 2002 in respect of materials which have been locally procured and have been used in the manufacture of goods exported under the Duty Free Import Authorisation Scheme.
 - (b) provide that goods procured under duty free replenishment in respect of which the facility under rule 18 or 19 has been availed shall be used in the manufacture of dutiable goods in the factory of the exporter or in the factory of his supporting manufacturer even after discharge of export obligation.
 - (c) provide that the importer shall pay an amount equal to additional duty of customs together with interest @ 15 per cent per annum from the date of clearances of the said materials in case the materials are imported against an authorisation transferred by the regional authority or such materials are transferred with the permission of the regional authority. However, no such amount shall be payable in respect of authorisation issued from 01.05.2006 to 31.03.2007.
 - (d) define dutiable goods for the purpose of the notification.
- 7) Notification No. 27/2009-Customs (NT) dated 17.03.2009 provides for officers of DGCEI to act as officers of customs with all India jurisdiction. This notification has been given retrospective effect from 09.05.2000.

Clarification on Customs Tariff related Matters

- (i) In order to properly implement the duty exemption benefit on import of edible oils, the Board clarified that the term 'crude' used in the Serial No. 33A of the Notification No. 21/2002 dated 1.3.2002 is intended to cover all edible oils which have not been subjected to any process of refining. It has also been clarified that the condition of edible grade of oil has to be certified by testing it in terms of the standards of quality specified for such goods in terms of Appendix B to the Prevention of Food Adulteration Rules, 1955.
- (ii) On the issue of classification of line and mobile/cellular phones and for the assessment of addition duty of customs, it was clarified by the Board that subsequent to changes made in the Harmonized System of Nomenclature (HSN) in 2007, the First Schedule to the Customs Tariff Act, 1975 was also revised for consequential changes and accordingly, the present entry 'telephone sets' under heading 8517 covers both 'line telephones' as well as 'cellular / mobile phones'.

Central Excise

The robust growth momentum of the Indian economy since 2003-04 could be ascribed in great measure to the resurgence of the manufacturing sector and this was facilitated to a large extent by the rationalization of excise duties. As a consequence of changes in the ad valorem rates of Central Excise Duty for non-petroleum products on 24th February, 2009, a dual rate structure with rates of 4 per cent and 8 per cent *ad valorem*

was put in place. This rate structure for non-petroleum products has been retained in Budget 2009-10. However, the rate of duty on several items attracting 4 per cent was restored to 8 per cent. Among the important sectors/ items where such increase has occurred are ceramic tiles, plywood, flush doors and articles of wood, writing ink and other ink used in writing instruments, zip fasteners, MP3/MP4 or MPEG4 players etc. Consequent upon increase in Excise Duty rate from 4 per cent to 8 per cent, abatement rates were revised suitably on items covered under retail sale price (RSP) based assessment. On the other hand, the 4 per cent rate was retained on mass consumption and essential items, such as-

- Sugar confectionary, biscuits with retail price exceeding Rs. 100Kg, cakes and pastries. sherbets, scented supari etc.
- Paraxylene
- Drugs and pharmaceutical products
- Certain varieties of paper, paperboard and articles therefrom
- Footwear of RSP exceeding Rs.250 but not exceeding Rs.750 per pair
- Pressure cookers
- Power driven pumps for handling water
- Water filtration/purification equipment
- Specified textile machinery
- Compact Fluorescent Lamps and vacuum and gas filled bulbs of retail price not exceeding Rs. 20 per bulb, and
- Medical equipment

The sector specific duty changes are as under.

Textiles

- The scheme of optional Excise Duty of 4 per cent for pure cotton has been restored. The rate of duty on manmade fibre and yarn was enhanced from 4 per cent to 8 per cent on mandatory basis. Beyond the fibre/yarn stage, the optional levy of 8 per cent *ad valorem* was restored (instead of pre-budget rate of 4 per cent). Similarly, textile items manufactured from natural fibre other than cotton such as silk, wool, flax etc. was to bear an optional levy of 8 per cent *ad valorem* instead of 4 per cent beyond the fiber stage. The enhanced rate of 8 per cent also apply to blended fabrics and products.
- Corresponding changes in the rates of duty applicable to Export Oriented Units (EOU) using only indigenous raw materials when they make clearances of textiles items into the Domestic Tariff Area (DTA) were also made.
- Excise duty on some important textiles Intermediates viz, Polyester chips, Di-Methyl Terephthalate (DMT), Pure Terephthalic Acid (PTA), and Acrylonitrile was also enhanced from 4 per cent to 8 per cent *ad valorem*.

Petroleum

- The *ad valorem* component of Excise Duty on petrol, intended for sale with a brand name, was converted into a specific rate. Consequently, such petrol now attracts total Excise Duty of ₹ 14.50 per litre instead of '6 per cent + ₹ 13 per litre'.
- Similarly, the *ad valorem* component of Excise Duty on diesel, intended for sale with a brand name, was converted into a specific rate. Consequently, such

diesel now attracts total Excise Duty of ₹ 4.75 per litre instead of '6 per cent + ₹ 3.25 per litre'.

- Exemption from Basic Excise Duty, Additional Duty of Excise and special additional Duty of Excise was provided to High speed diesel oil blended with bio-diesels, up to 20 per cent by volume, provided both HSD and bio-diesel have paid the appropriate duty of excise.
- Excise Duty rate on special boiling point spirits and Naphtha was reduced to 14 per cent.

Automobiles

- Excise duty on large cars/utility vehicles, having engine capacity exceeding 1999, was reduced from '20 per cent + ₹ 20,000' per unit to '20 per cent + ₹ 15,000 per unit'.
- Excise duty on petrol driven trucks/lorries was reduced from '20 per cent + ₹ 10,000' per chassis to '8 per cent + ₹ 10,000' per chassis.

Small Scale Industries (SSI) exemption

- There was no change either in the exemption limit or the eligibility limit for the small scale exemption. The brand name restriction was relaxed in respect of printed laminated rolls. As a consequence, manufacturers of printed laminated rolls bearing the brand name of another person and fulfilling the conditions of the notification was made entitled to full exemption from Excise Duty for their first clearances of this item (for home consumption) not exceeding ₹ 150 lakh during the remaining part of this financial year i.e. 2009-10.

Other changes/reliefs

- Full exemption from Excise Duty has been provided to goods falling under Chapter 68 manufactured at the site of construction for use in construction work at such site.
- Full exemption from Excise Duty has been provided to tops manufactured from duty paid tow of man-made fibre using the tow-to-top process under specified conditions.
- Articles of jewellery on which brand name or trade name is indelibly affixed or embossed (branded jewellery), have been fully exempted from Excise Duty.
- Full exemption has also been provided to EVA compound manufactured on job-work basis for further manufacture of footwear.
- Partial exemption from Excise Duty has been provided to packaged or canned software so that the duty payable on that portion of the value which represents the consideration for the transfer of the right to use such software is exempted.
- Recorded smart card and tags were exempted from Excise Duty. A condition has been added to this exemption so as to make it available only if the manufacturer has not availed of Cenvat credit of the duty paid on inputs for these goods.

Amendments in Central Excise Act, 1944

- 1) Section 9A of the Central Excise Act is being amended so as to provide for the manner of compounding of offences and to provide that certain offences and circumstances shall not be compoundable. Consequential amendment is also being made in section 37 of the Central Excise Act.

- 2) Sections 14A and 14AA of the Central Excise Act are being amended so as to empower the Chief Commissioner of Central Excise to nominate a Chartered Accountant for conducting special audit under these provisions.
- 3) Section 23A of the Central Excise Act is being amended so as to substitute the definition of the 'Authority for Advance Rulings' to include therein the authority authorized under section 28F of the Customs Act.
- 4) Section 35G of the Central Excise Act is being amended retrospectively with effect from 01.07.2003 so as to make an express provision to empower High Courts to condone delay in filing of appeals beyond the prescribed period.
- 5) Section 35H of the Central Excise Act is being amended retrospectively with effect from 01.07.1999 so as to make an express provision to empower High Courts to condone delay in filing of applications or memorandum of cross objections beyond the prescribed period.

Amendments in the First Schedule to the Central Excise tariff Act, 1985.

- 1) Note 1 to Chapter 8 in the First Schedule to the Central Excise Tariff Act, 1985 has been substituted so as to exclude 'betel nut product known as supari' of tariff item 2106 9030 from its purview.
- 2) A Note (No. 6) has been inserted in Chapter 21 so as to provide that in relation to product of tariff item 2106 90 30 the process of adding or mixing cardamom, copra, menthol, spices, sweetening agents or any such ingredients, other than lime, katha (catechu) or tobacco to betel nut in any form shall amount to 'manufacture'.
- 3) In Chapter 58, against tariff item 5801 22 10, in column (3) and (4), the entries 'm2' and '8 per cent' respectively are being inserted.

Amendments in central Excise Rules and CENVAT Credit Rules.

- 1) A new rule is being inserted in Central Excise Rules, 2002 to provide that records seized by the department during an investigation but not relied upon in the Show Cause Notice should be returned to the party within 30 days of issue of Show Cause Notice.
- 2) An explanation is being inserted in Rule 2 of Cenvat Credit rules, 2004 so as to clarify that 'inputs' shall not include cement, angles, channels, CTD or TMT bars and other items used for construction of shed, building or structure for support of capital goods.
- 3) Notification Nos. 33/97-CE (NT) dated 01.08.1997, 44/97-CE (NT) dated 30.08.1997 and 7/98-CE (NT) dated 10.03.1998 are being amended with retrospective effect from the date of issue of respective notifications so as to provide the Central Government with the power to notify rates of excise duty under these notifications by virtue of powers conferred on it by the erstwhile section 3A of the Central Excise Act [These changes to come into effect on enactment of the Finance (No.2) Bill 2009] .
- 4) Rule 6 (3) of the Cenvat Credit Rules, 2004 is being amended to prescribe that a manufacturer of both dutiable and exempted goods, who does not maintain separate accounts of inputs, shall pay an amount equal to 5 per cent of the total price of the exempted goods instead of 10 per cent.

Service tax

The rate of Service Tax at 10% reduced from 12% on 24 February 2009 was retained.

Broadening the Tax Base

The following four new services were brought under the Service Tax net:

- Service provided in relation to transport of goods and goods through National Waterways and Inland Water.
- Service provided in relation to transport of goods by rail (for the time being, Service Tax on this service has been kept in abeyance)
- Cosmetic and plastic surgery service undertaken to preserve or enhance physical appearance or beauty.
- Legal consultancy service provided by a business entity to another business entity.

Relief to Exporters

- Two taxable services, namely, 'Transport of goods by road' and 'Commission paid to foreign agents' are exempted from the levy of service Tax as, if the exporter is liable to pay Service Tax on reverse charge basis.
- In respect of other taxable services, a new revamped and trust-based refund scheme was notified w.e.f. 07.07.2009. Under the new scheme, refund is granted to the exporters within one month without any pre-audit based on self-certification or certification by the chartered accountant. A simplified format has been prescribed to file the refund claims. The condition for filling the refund claims once in a quarter has been dispensed with and the time period for filing the refund claim has been increased to one year from the date export.
- Terminal Handling charges is added to the list of services eligible for refund.
- Services provided for transport of export goods through national waterway, inland water and coastal shipping were included in the list of services eligible for refund of Service Tax.

Other relief measures

- Exemption from Service Tax has been provided to inter-State or intra-State transportation of passengers in a vehicle bearing 'Contract carriage permit', with specified conditions.
- Federation of Indian Export Promotion Organization (FIEO) and other specified export promotion councils have been exempted from the levy of Service Tax under the 'Club or association service'. The exemption is valid till 31.03.2010.
- Exemption from Service Tax leviable under 'Banking and other financial services' or under 'Foreign exchange broking service' has been provided to Inter-bank purchase and sale of foreign currency between scheduled banks.
- Service provided in relation to transport of goods by call has been exempted from Service Tax.
- Service Tax exemption has been provided on taxable service provided in relation to transport of specified good through national waterway, Inland water and coastal shipping.

- Sub-brokers have been excluded from the definition of 'Stock-broker'. As a consequence, sub-brokers have been excluded from the definition of 'stock-broker'. As a consequence, sub-brokers will be outside the purview of Service Tax.

Amendments in the Finance Act,1994

- 1) Finance Act, 1994 is being amended to:-
 - (a) abolish revision procedure prescribed under section 84 and to prescribe the procedure of filing departmental appeals before the Commissioner (Appeal) in Service Tax cases similar to the central excise procedure. Accordingly, section 84 pertaining to revision by Commissioner is being modified and consequential changes are being made in section 86. A saving clause is being provided to protect the pending cases.
 - (b) empower the Central Government to frame rules with respect to the place of provision of taxable services; and with respect to the relevant date for determination of the rate of Service Tax.

Amendments in existing Rules and Notifications

- 1) The scope of notification No. 1/2002-ST dated 01.03.2002 is being enlarged by extending the applicability of Service Tax provisions to installations, structures and vessels in the entire Continental Shelf of India and Exclusive Economic Zones of India.
- 2) Rule 6 (3) of the Cenvat Credit Rules, 2004 is being amended to prescribe that a provider of both taxable and exempted services, who does not maintain separate accounts of inputs, shall pay an amount equal to 6 per cent of the value of exempted services instead of 8 per cent.
- 3) Rule 3 (5B) of the Cenvat Credit Rules, 2004 is being amended so as to provide that a service provider shall pay back the amount of credit taken on inputs/ capital goods fully written off.
- 4) Explanation provided in the Works Contract Rules, 2007 is being modified so as to allow the benefit of optional composition scheme only to such works contracts where the taxpayer declares the entire value of goods (whether supplied under any other contract for a consideration or otherwise) and services used in the execution of the works contract as the 'gross value' charged for the works contract. This restriction would not apply to current works contracts on or before 07.07.2009.

Exemptions

- 1) Exemption from service tax is being provided to inter-state or intra-state transportation of passengers in a vehicle bearing 'Contract Carriage Permit' with specified conditions.
- 2) Exemption from service tax (leviable under Club or Association Service) is being provided to the Federation of Indian Export Organizations (FIEO) and specified Export Promotions Councils. The exemption is valid till 31.03.2010.
- 3) Exemption from service tax (leviable under banking and other financial services or under foreign exchange broking service) is being provided to inter-bank

purchase and sale of foreign currency between scheduled banks.

Refund Scheme for Exporters

Notification No. 41/2007-ST dated 06.10.2007 provides for refund of service tax paid on services, which though not in the nature of input services, are relatable to export of goods. The scheme is being revamped to ensure speedier grant of refunds to the exporters. The salient features of the new scheme, being notified under two notifications, both dated 07.07.2009, are as follows:

- (a) Two taxable services, namely, 'Transport of goods by road' and 'Commission paid to foreign agents' have been exempted from the levy of service tax, if the exporter is liable to pay Service Tax on reverse charge basis. However, as the present cap of 10 per cent on commission agency charges has been retained, the exporter will have to pay Service Tax on the amount of commission which is in excess of 10 per cent.
- (b) Following are some of the salient features of the revamped refund scheme, notified in supersession of notification No.41/2007-ST dated 06.10.2007:
 - 'Terminal Handling Charges' is being added to the list of eligible services.
 - The time period for filing a refund claim is being increased to one year from the date of export. The condition for filing refund claims once in a quarter is being dispensed with. Now the exporter can file a refund claim anytime after each export shipment.
 - A simplified format is being prescribed for filing refund claims.
 - Self-certification is being introduced to ensure faster sanction and disbursement of refunds. In a case, where total amount of refund claim does not exceed 0.25 per cent of the total f.o.b. value of exports under a claim, a self-certification by the exporter on the relevant documents to the effect that: (a) the eligible services have been received by him; (ii) the service tax payable thereon has been reimbursed; and (iii) such services have been used for the export, would be sufficient. The refunds shall be granted within one month without any pre-audit.
 - In a case, where amount of refund claim exceeds 0.25 per cent of the f.o.b. value of exports, the documents submitted by the exporter should be certified by the chartered accountant, who audits his annual accounts. On the basis of such certification, the refund claim shall be sanctioned within one month without any pre-audit.

CENTRAL SALES TAX (CST)

The Central Sales Tax is levied under the provisions of the Central Sales Tax Act, 1956 on the sale of goods of the course of inter-State trade or commerce. The Central Sales Tax is levied by the Central Government by virtue of Entry 92 A of the Union List, but the same is assigned to the States within which the tax is leviable, by virtue of provisions of Article 269 of the Constitution of India. It is an accepted fact that the CST, being an origin-based tax, is inconsistent with VAT (which is a destination based tax). Moreover, CST is a cascading-type taxed since it is not rebatable against VAT. Hence, it is agreed that CST should be phased out.

In fact, after extensive consultations between the Centre and the States, the

roadmap for phasing out the CST by 31.3.2010 (i.e. before the date appointed for introduction of GST) has been finalized. The package of compensation to the States for revenue loss on this account has also been finalized. Accordingly, the process of phasing out of the CST has been started with reduction in CST from 4 per cent to 3 per cent w.e.f. 01.04.2007 and further from 3 per cent to 2 per cent w.e.f. 1st June, 2008.

For the residual losses thereafter, the Central Government has further released Rs. 5979.65 crore to States till 31st December, 2009 as budgetary support component of compensation for the loss due to phasing out of CST in Financial Year 2009-10.

ANTI-SMUGGLING DRIVE

The following measures have been introduced with a view to help detect and curb evasion of Customs duty and frauds:

India has signed Customs Mutual Assistance Agreement, Memorandum of Understanding with various countries to promote sharing of intelligence and provide investigative assistance to curb duty evasion.

Customs Overseas Intelligence Network (COIN) provides actionable intelligence for facilitating seizures of offending goods and to detect evasion of Customs duty.

Use of National Import Database (NIDB) helps in detecting under-valuation of imported goods, which has been reported to be the oft-used route for Customs commercial frauds.

Intelligence Support System (ISS) provides for development of intelligence and for analyzing macro level inputs into macro level workable intelligence. This system has resulted in detection of commercial fraud and evasion of customs duty.

In order to disseminate information about new modus operandi, DRI shares details of important cases booked by it through issuance of alert circular. These alert circulars act as useful tools for the field formations in the detection of Customs duty evasion. These alert circulars are also used for targeting in the Risk Management framework.

The department has installed one Mobile Gamma Ray Container Scanner, one fixed X-ray scanner at Mumbai Sea Port. The department also proposed to install 7 additional Mobile and fixed container scanner during 2009-10 for effectively curbing the misdeclaration of goods etc. The speed Boats are being procured for effective patrolling of the coastal area. The department also approved procurement of 87 XBIS for installation at airport for scanning of baggage.

STATE VALUE ADDED TAX (VAT)

Under Entry 54 of List II (State List) of the Seventh Schedule of the Constitution of India, 'tax on sale or purchase of goods within a State' is a State subject. Introduction of State VAT to replace the earlier Sales Tax systems of the States has been one of the important tax reform measure taken on indirect tax side. The decision to implement State VAT was taken in the meeting of the Empowered Committee held on 18.06.2004, where a broad consensus was arrived at amongst the States to introduce VAT w.e.f. 01.04.2005, Accordingly, VAT has been introduced by all the States/UTs, except for the UTs of Andaman and Nicobar Islands and Lakshadweep.

Since Sales Tax/VAT is a State subject, the Central Government has been playing the role of a facilitator for successful implementation of VAT. Some of the steps taken by the Central Government are listed below :

- a) A package for payment of compensation to States for any revenue loss on account of introduction of VAT has been implemented. The rate of revenue loss compensation under this was 100 per cent during 2005-06, 75 per cent during 2006-07 and 50 per cent during 2007-08. An amount of ₹ 2558.67 crore has already been released by Central Government to States till 31st December, 2009 in the Financial Year 2009-10.
- b) Technical and financial support on 100 per cent basis is being provided to North Eastern/Special-category States to enable them to take up VAT related computerization. An amount of ₹ 6, 06 crore has been spent on the project by 31st December 2009 in the Financial Year 2009-10. Another project for computerization of VAT administration in Himachal Pradesh and Jammu and Kashmir with overall cost of ₹ 40.49 crore has been sanctioned in this financial Year. A Mission Mode project for computerization of State VAT administrations has also been formulated.
- c) 50 per cent funding is being provided to the Empowered Committee of State Finance Ministers for Implementation of the TINXSYS Project for tracking of inter-State transaction.
- d) The project for upgradation of Centre for Taxation Studies, Kerala to a national level institute of Public Finance, named Gulati Institute of Finance and Taxation (GIFT), has been sanctioned. This involves commitment financial assistance of ₹ 23.63 crores out of the total project cost of ₹ 33.13 crore.
- e) Financial support had been provided to the Empowered Committee as well the States for undertaking VAT related publicity and awareness campaigns. The experience with implementation of VAT has been very encouraging so far. The new system has been received well by all the Stake-holders and the transition to the VAT system has been quite smooth. The tax revenues of VAT Implementing States had registered an increase of 13.8 per cent during 2005-2006 and about 21 per cent during 2006-2007. During 2007-08, the gross revenue growth in State VAT and Sates Taxes for all the States/UTs had been 15.7 per cent, which had included a growth of about 24 per cent in the revenue from VAT-Items.

Rationalization of Instruments under Indian Stamp Act, 1899

A High level Expert Committee on Corporate Bonds and Securitisation (under Chairmanship of Dr. R.H. Patil, Chairman, UTI) was constituted. The Committee has recommended for rationalization of certain instruments under Indian Stamp Act, 1899 namely Debentures (Article 27), Bonds in the nature of Promissory Notes (Article 49) and Assignment etc. The recommendations of the Committee have been accepted by the State Government in the meeting of Standing Committee of State Secretaries on Stamps and Registration held on 11.05.2007 at NIPFP. It was decided to reduce/to make rates of stamp duty uniform in respect of two instruments viz. Debenture and Promissory Notes, being the Central Instruments and notifying them under Section 9 (1)(a) of the Indian Stamp Act. Necessary Stamp Order notifying the rates of Stamp Duty in respect of Debentures and Promissory Notes has since been issued vide S.O. 2189 (E) dated 12.09.2008.

Empowered Committee of State Finance Ministers (EC) has been requested to work with the Central Government to create a truly pan Indian market for securities that will expand the market base and enhance the revenues of the State Government.

Goods and Services Tax (GST)

Introduction of GST is the logical extension of reforms in Central and States' indirect taxation aimed at avoiding double taxation and tax-cascading and thereby ensuring level field and market competitiveness of our products in national and international markets. The process of introduction of GST has been commenced with the cooperation of the Empowered Committee of State Finance Ministers, whose Terms of Reference have been expanded to the original Resolution, to enable the EC "To work with the Central Government to prepare a roadmap for introducing Goods and Services Tax (GST) in the country with effect from April 1, 2010 and to deal with related matters." The EC had set up a Joint Working Group (JWG) dated 10th May 2007, comprising officials of the Central Government and State Governments. The Working Group studied various models of GST existing globally and other relevant material available on the subject, including through field visits. The Group also undertook identification of alternative models and assessment of their suitability for introduction of GST in India's fiscal federal context. The JWG presented its report to the EC on November 19, 2007. This was examined by EC and their views on "a Modal and Roadmap for GST in India" were communicated to the Ministry of Finance on 30.04.2008.

The views of EC had been examined in depth at the Ministry, in consultations involving the Tax. Research Unit, Central Board of Excise and Customs, Commissioner Service Tax and Commissioner Central Excise also. The consolidated preliminary comments of the Department of Revenue, Ministry of Finance had been conveyed to the Empowered Committee of State Finance Ministers. EC has released First discussion Paper on GST on 10th November, 2009 to obtain feedback from the stakeholders. The comments of the Department of Revenue have been furnished to the Empowered Committee. A Joint Working Group of officers of State and Central Government has been constituted to prepare draft Constitutional amendment bills and draft Central and State legislations for GST. The GST once implemented is likely to reduce cascading of tax and bring down compliance cost. The removal of cascading effect will make the products more competitive and thus is likely to lead to increased sales. The economy in general is therefore likely to see higher growth than would have been achieved otherwise.

OPIUM CULTIVATION

India is the sole licit producer and exporter of opium gum in the world market. Other countries which grow opium follow the Concentrate of Poppy Straw (CPS) method. Cultivation of opium poppy through licences issued by the Central Bureau of Narcotics (CBN), and export of opium are under the exclusive control of the Central Government. The Central Bureau of Narcotics, headed by the Narcotics Commissioner, is the designated agency to supervise the licit production of opium in the notified tracts of the three States namely Madhya Pradesh, Rajasthan and Uttar Pradesh.

During the crop year 2008-09, 509 Metric. Tonnes (provisional) of opium at 70 degree consistence was procured. The average yield at 70 degree consistence on basis of provisional results received from MP, Rajasthan and UP for the crop year 2008-09 was 56.66, 58.71 and 59.08 kgs/hectare (provisional) respectively. The All India average yield during 2008-09 was 57.50 kgs/hectare at 70 degree consistency (provisional). The figures related to opium cultivation are provisional as final reports

from factories for the crop year 2008-09 are awaited. The figures are for 2008-09 as the crop cycle for the cultivation of opium is October to September next year.

DIRECTORATE OF ENFORCEMENT

The Directorate of Enforcement is mainly concerned with the Enforcement of the provisions of the Foreign Exchange Management Act (FEMA), 1999, beside implementation of Prevention of Money Laundering Act (PMLA), 2002, w.e.f. 1.7.2005. The Directorate is also responsible for adjudication of the Foreign Exchange Regulation Act, 1973 (FERA) cases (repealed Act) and follow-up of prosecutions filed under the erstwhile FERA. Consequent to the amendment of PMLA, which has been notified on 1.6.2009, the work of the Directorate, with regard to implementation of PMLA has increased manifold.

The intelligence is collected by the Directorate from different sources, which is collated and investigated upon resulting in filing of the complaint by the Investigating Officers before the Adjudicating Authority, who on consideration of the same issues Show Cause Notices in the deserving cases, which SCNs on Adjudication result in imposition of penalty besides confiscation of the amount involved in the contraventions.

Under FEMA, the Directorate, during the period 1.4.2009 – 31.3.2010, conducted 86 searches, which resulted in the seizure of ₹ 1989.10 lakh foreign and Indian currencies.

Under Prevention of Money Laundering Act (PMLA) 2002, the Directorate has taken up investigations in 65 ECIRs (Enforcement Case Information Report) cases under the provisions PMLA, relating to Scheduled Offences such as (a) waging war against the country/state, (b) drug offences under NDPS Act, (c) IPC offences like forgery of valuation security (d) Fake Indian currency notes, etc (e) offences under the Arms Act (f) Wild Life (Protection) Act (g) Immoral Traffic (Prevention) Act etc. Provisional Attachment of Properties under PMLA valued at ₹ 46.76 crores had been ordered.

Provisional Attachment Orders (PAO) have been issued in 10 cases, whereby proceeds of crime to the tune of Rs. 1077.88 lakhs have been provisionally attached; out of these 34 (PAO) involving a sum of Rs. 7,307 lakhs, stand already confirmed by the Adjudicating Authority.

FORFEITURE OF ILLEGALLY ACQUIRED PROPERTY

The Smugglers and Foreign Exchange Manipulators (Forfeiture of Property) Act, 1976 (SAFEM(FOP)A), provides for forfeiture of illegally acquired property of the persons convicted under the Sea Customs Act, 1878, the Customs Act, 1962 and the Foreign Exchange Regulation Act, 1947 and Foreign Exchange Regulation Act, 1974 and the persons detained under the Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974. The Narcotics Drugs and Psychotropic Substances Act, 1985 [NDPS Act] provides for tracing, freezing, seizure and forfeiture of illegally acquired property of the persons convicted under that Act or any corresponding law of any foreign country, and those who are detained under the Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988 and Jammu and Kashmir Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988.

SAFEM(FOP) Act and NDPS Acts provide for appointment of Competent Authorities for carrying out forfeiture of illegally acquired properties. At present, the Offices of Competent Authorities are located at Kolkata, Chennai, Delhi, Mumbai and one unit is at Ahemdabad. During the year 2009-2010 (upto 31/11/09) the Competent Authorities have forfeited property worth of Rs. 2153.70 lakhs in 20 cases.

14 Corporate Affairs

INDIA'S corporate sector is one of the major driving forces of its economic growth. From major multinational corporations to small and medium enterprises and ranging across a wide diversity of sectors, including manufacturing, construction, telecom and services, corporate sector has played a significant role in the economic development of the country. This growth and development of corporate sector was enabled by the liberal reforms introduced in the country from time to time.

GROWTH OF CORPORATE SECTOR

Year ended March	No. of companies (limited by shares)	Paid up capital (₹ Crores)	% contribution to GDP
1982	72,402	18,935.5	11.1
1987	1,40,670	43,967.8	14.0
1992	2,50,361	84,642.3	12.9
1997	4,50,950	1,90,518.6	13.8
2002	5,89,246	4,05,753.2	17.8
2003	6,12,155	4,57,058.7	18.7
2004	6,41,512	4,98,790.8	18.1
2005	6,79,649	6,54,021.6	21.0
2006	7,32,169	6,19,152.0	16.7
2007	7,43,678	706560.0	16.49
2008	7,69,145	924028.0	18.68
2009	7,86,774	1003887	18.01

To meet the expectations of the Corporate Sector and its stakeholders in the changing national and global business environment, Ministry of Corporate Affairs has extended its efforts through a number of initiatives to bring about 'Good Governance'. These initiatives aim at improvement in the legislative framework and administrative set-up to enable easy incorporation and exit of the companies, convenient compliance of regulations with transparency and accountability in corporate governance.

The Ministry is primarily concerned with the administration of the Companies Act, 1956 and other related statutes, and has taken up a series of initiatives to meet the needs of the Indian corporate sector. These initiatives include the implementation and stabilization of an ambitious e-governance Project known as MCA21 as one of the Mission Mode Projects of the Govt. of India under the National E-governance Plan, comprehensive revision of the Companies Act, 1956 through a wide consultative process, introduction of a new legal framework on the Limited Liability Partnerships, amendments to the Acts governing the three professional Institutes of Chartered

Accountants, Cost and Works Accountants and the Company Secretaries, Amendments to the Competition Act, 2002, Developments and notification of Accounting Standards, creation of physical infrastructure in order to meet the requirements of offices and provide for an efficient work environment and proposed establishment of the Indian Institute of Corporate Affairs.

The Corporate Sector, apart from creating wealth for the nation, plays a significant role in the national economy by providing investment and employment opportunities to millions of our people in India. There were about 30,000 registered companies at work in 1957, i.e. initial year of 2nd Five Year Plan and this number has increased to 8,03,330 registered companies at work at the end of March 2009.

The corporate sector consists mainly of non-government companies which form 99.8 per cent of the total sector whereas government owned companies are a negligible 0.2 per cent. The companies are of three types—companies limited by shares, companies limited by guarantee and companies with unlimited liabilities; companies limited by shares forming the major chunk of the corporate sector (97.9 per cent).

The industrial sectors having major concentration of Indian companies are the manufacturing sector, finance, insurance, real estate and business activities, wholesale and retail trade, hotels and restaurants and construction. Each of the manufacturing sector 26 per cent and finance, insurance, real estate and business sector constitutes 27.58 per cent of the Indian corporate sector. The industrial sector with the activities of wholesale and retail trade, hotels and restaurants forms 14.64 per cent whereas construction forms 8.68 per cent of the corporate sector.

State-wise distribution of Indian companies

The three largest states constituting 54.22 per cent of the corporate sector are Maharashtra, Delhi and West Bengal. The top fifteen states having largest concentration of Indian companies are Maharashtra, Delhi, West Bengal, Tamil Nadu, Andhra Pradesh, Gujarat, Karnataka, Uttar Pradesh, Rajasthan, Kerala, Punjab, Madhya Pradesh, Haryana, Bihar and Orissa in that order. These states constitute 95.59 per cent of the sector.

STATUTORY REFORMS

The Ministry has been working on wide ranging reforms in the statutory framework relating to the corporate sector. Some of the major initiatives taken in this direction are as under :

Companies Bill 2009

The corporate sector in India is primarily regulated under the Companies Act, 1956 (hereinafter referred to as the Act) and various rules/regulations made under such Act. The Act is being administered by the M/o Corporate Affairs. The Act has been in force since 1956 and about 25 amendments have been made in this Act from time to time. These include major sets of amendments through the Companies (Amendment) Act, 1988 made after considering the recommendations of the Sachar Committee and later through the Companies (Second Amendment) Act, 2002 consequent to the report of the Eradi Committee. Most recent amendments were made in 2006 to introduce the concept of MCA-21 e-Governance Programme.

Many changes have taken place in the national and international economic environment since the enactment of the Act. Following economic liberalization in India over the past few years avenues for international business, trade and capital gains flows have increased considerably. Simultaneously, with these developments,

the Indian economy has registered steady growth and has consequently expanded considerably. The number of companies has expanded from about 30,000 in 1956 to nearly 9 lakh as of date.

Keeping the above factors in mind, it was decided that the issues concerning company law in India could be addressed effectively through a comprehensive review and revision of the existing Companies Act, 1956. It was decided to take up such a review keeping in view the following:-

- (a) to revise and modify the Companies Act, 1956 in consonance with the changes in the national and international economy;
- (b) to bring about compactness by deleting the provisions that had become redundant over time and by regrouping the scattered provisions relating to specific subjects;
- (c) to re-write various provisions of the Act to enable easy interpretation; and
- (d) to delink the procedural aspects from the substantive law and provide greater flexibility in rule making to enable adaptation to the changing economic and technical environment.

Subsequently, on the basis of recommendations of an expert committee constituted for the purpose and after holding consultation with various stakeholders including various concerned Ministries/Departments, the Companies Bill, 2008 was introduced in the Lok Sabha on 23 October 2008 to replace the existing Companies Act, 1956. However, due to dissolution of 14th Lok Sabha, the Companies Bill, 2006 lapsed in view of article 107(5) of Constitution. The Ministry of Corporate Affairs has re-introduced the Companies Bill, 2008 as Companies Bill, 2009 in the Lok Sabha on 3 August 2009. The Bill was referred to Hon'ble Parliamentary Standing Committee on Finance for examination and report. The Committee has submitted its report which is under examination.

Limited Liability Partnerships Act, 2008

The provisions of the newly enacted Limited Liability Partnership Act, 2008 have been notified for implementation with effect from 31 March 2009. The Limited Liability Partnership Rules, 2009 have been notified on 1 April 2009. The provisions relating to conversion of partnership firms, private company and unlisted public company into LLP came into effect from 31 May 2009. LLP is a new business vehicle in the body corporate form and therefore a separate legal entity which limits the liability of the partners to their agreed contribution. Any two or more individuals or bodies corporate may incorporate an LLP for carrying on a lawful business with a view to profit. LLP structure is not restricted to any specific trade, business, profession or service. LLP is a legal entity separate from its partners and has perpetual succession. Ministry of Corporate Affairs has set up a single central Registry at Delhi for registration of LLP and filing of further returns with Registrar LLP online on its website namely, www.lip.gov.in on 1 April 2009.

Through the notification no. GSR 6(E) dated 6 January 2010, the Central Government in exercise of powers conferred by sub-section (1) of section 67 of Limited Liability Partnership Act, 2008, made applicable the winding up provisions of the Companies Act, 1956 to a Limited Liability Partnership, except where the context otherwise requires, with certain modifications. Through the notification no. GSR (24E) dated 11 January 2010 the Central Government has notified Limited Liability Partnership Amendment Rules, 2010. The Central Government has notified the Limited

Liability Partnership (Winding up and Dissolution) Rules, 2010 on 30 March 2010.

Convergin of Accounting Standards with International Financial Reporting Standards (IFRS)

Accounting Standards are policy documents relating to various aspects of measurement, treatment, presentation and disclosure of accounting transactions and events. The purpose of Accounting Standards is to standardize diverse accounting policies with a view to eliminate incomparability of financial statements. The objective is to provide a set of standard accounting policies which are in conformity with generally accepted principles and policies.

Pursuant to the provision of section 211(3C) of the Companies Act, 1956, the Companies (Accounting Standards) Rules, 2006 were notified in the Gazette of India dated 7 December 2006. At present 28 Accounting Standards have been notified. Every company registered under the Companies Act, 1956 is required to comply with these Accounting Standards.

International Financial Reporting Standards (IFRSs) are considered as "principles based" set of standards in which they establish broad rules as well as dictate specific treatments. There is also a Framework for the Preparation and Presentation of Financial Statements which describes some of the principles underlying IFRSs. The objective of financial statements is to provide information about the financial position, performance and changes in the financial position of an entity that is useful to a wide range of users in making economic decisions, and to provide the current financial status of the entity to its shareholders and public in general.

India has adopted policy of convergence with IFRSs keeping in view the requirements of change and transition necessary to be followed by Indian companies and regulatory bodies. Therefore, the initiative for harmonization of Indian Accounting Standards with the IFRSs has been taken up with the intention of achieving convergence with IFRSs by 2011. India has decided to apply converged Indian Accounting Standards in phases for different categories of companies (depending on specified criteria).

Competition Act

India has responded to the current world-wide trend of globalization by opening up its economy, removing controls and resorting to liberalisation. As a natural corollary of this, it was felt that the Indian market should be geared to face competition from within the country and outside. It was also felt that the existing Monopolies and Restrictive Trade Practices Act, 1969 has become obsolete in certain respects in the light of international economic developments relating more particularly to competition laws and there is a need to shift out focus from curbing monopolies to promoting competition. Hence the Government decided to enact a new law for bringing competition in the Indian market.

The Competition Act, 2002 was passed by the Parliament in the Winter Session of 2002 and received the assent of President in January 2003. Consequent upon a challenge to certain provisions of the Act and the observations of the Hon'ble Supreme Court of India, the Act was amended by the Competition (Amendment) Act, 2007. The Competition Act, 2002 as amended, provides for setting up of the Competition Commission of India (CCI) comprising a Chairperson and a minimum of two and maximum of six Members. In addition, it also provides for establishment of a Competition Appellate Tribunal to hear and dispose of appeals against the orders of

the Commission and also to adjudicate on the claims of compensation that may arise from the findings of the Commission or orders of the Appellate Tribunal.

In accordance with the provisions of the Amendment Act the Competition Commission of India and the Competition Appellate Tribunal have been established. The provisions of the Competition Act relating to anti-competitive agreements and abuse of dominant position have been brought into force with effect from 20 May 2009 and the Commission has started dealing with cases under the provision.

Competition Act lays responsibility on the Competition Commission of India to take appropriate measure for the promotion of competition advocacy, creating awareness and imparting training about competition issues. In pursuance of these objectives, the Commission organizes interactive meeting, workshops and seminars, etc. with different regulatory bodies, policy makers, trade organizations, consumer associations and the public at large to create awareness of competition issues. The Commission also develops research capability in the area of competition economics, law and policy among the various stakeholders, ministries/departments, research community, regulators, lawyers, industries, etc.

Investor Education and Protection Fund (IEPF)

The Ministry of Corporate Affairs has established the Investor Education and Protection Fund (IEPF) under the provision of Section 205C of the Companies Act, 1956 with the objectives of promoting investors' awareness and protection of their interests. Under this initiative, the Ministry while promoting the concept of prudent and informed investment decision making, also provides services related to making available informational and educational content for investors, investor grievance redressal and technical assistance to organizations engaged in investor education activities. The activities undertaken through the aegis of IEPF include the following :

- Providing (simple user friendly) educational and awareness content to all the investors through the website www.lepf.gov.in.
- Providing the material Registry of economic offenders through the website www.watchoutinvestors.com which covers all entities who have been found to be guilty under different economic laws of the country.
- Providing on-line investor grievance redressal facility through the website www.watchoutinvestors.com.
- Undertaking investor awareness programmes in partnership with Institute of Chartered Accountants of India (ICAI), Institute of Company Secretaries of India (ICSI) and institute of Cost and Works Accountants of India (ICWAI) specifically targeting investors in tier II and tier III cities.
- Providing technical/financial assistance to voluntary organizations for undertaking investor awareness related activities.
- Undertaking multi-lingual media campaigns to reach out to investors across the country.

During the year 2009-10, investors' awareness programmes were organized at 238 locations by ICSI, ICAI and ICWAI.

The numbers of registered NGO's under IEPF have increased from 69 to 106 up to 31 March, 2010. Series of advertisements on investor education and awareness were issued in national as well as regional language newspapers in the month of December 2009.

In order to reach out to the large majority of Hindi speaking people in the country, the Ministry launched its website www.iepf.gov.in in Hindi on 26 March 2010. This will help large number of investors to understand their rights and responsibilities while making investment decisions.

The Ministry of Corporate Affairs has decided to mainstream the investor awareness during financial year 2010-11. In pursuance of this, the ministry has partnered with a number of organizations including the professional institutes, national stock exchanges and leading trade and industry chambers to organise a large number of investor awareness programmes throughout the country. In order to bring a national focus on this issue, the Ministry organised India Investor Week from 12-17 July 2010. During this week, five national events were organised at Mumbai, Chennai, Hyderabad, Bangalore and Kolkata. A large number of programmes were also organised in smaller cities and towns. The Ministry also launched its investor awareness website in Regional languages during this Week.

A simple and easy to understand Investor Guide in English and Beginner's Guide in various regional languages were also released during this period. With these initiatives, the Ministry hopes to bring a large number of people into the economy through informed investment decisions making.

National Foundation for Corporate Governance

Ministry of Corporate Affairs has set up National Foundation for Corporate Governance (NFCG) as a not-for profit Trust to provide a platform to deliberate issues relating to good corporate governance and to sensitize corporate leaders on the importance of good corporate governance practices, to facilitate exchange of experiences and ideas between corporate leaders, policy makers, regulators, law enforcing agencies and non-government organizations.

The NFCG has a three-tier structure for its management, viz, the Governing Council under the Chairmanship of Minister of Corporate Affairs, the Board of Trustees and the Executive Directorate.

The NFCG has been sponsoring orientation programmes for Directors through the various Institutes of Excellence and has been organizing seminars and conferences to propagate the need for following good corporate governance practices.

Over the last few years, NFCG has undertaken various initiatives to create awareness about the importance of implementing good corporate governance practices both at the level of individual corporations and for the economy as a whole.

The NFCG organized "India Corporate Week" from 14-21 December 2009 with the objective to enlighten the public about the processes, structures and practices in place to protect the interest of the stakeholders in the current market and simultaneously encourage the shareholders to join the governance process. The concluding function was held at Vigyan Bhawan, New Delhi on 21 December 2009 where the President of India was the Chief Guest. The Awards of Excellence were presented to the following organizations by the Hon'ble President :

- 1) Institute of Chartered Accountants of India
- 2) Institute of Company Secretaries of India
- 3) Institute of Cost and Works Accountants of India
- 4) Confederation of Indian Industry

- 5) ASSOCHAM
- 6) FICCI

Further, one book titled "Report on Corporate Affairs" and two compilations titled "Voluntary Guidelines on Corporate Governance" and "Voluntary Guidelines on CSR" were also released on this occasion.

Serious Frauds Investigation Office (SFIO)

Serious Fraud Investigation Office (SFIO) has been set up by the Government of India in the Ministry of Corporate Affairs by way of resolution dated 2 July 2003 as per the Cabinet decision dated 9 January 2003. This office has been set up to investigate corporate frauds of serious and complex nature. It carries out investigation under the provisions of the Companies Act as well as Indian Penal Code (IPC). Investigation is carried out by a multi-disciplinary team which includes experts from the field of accountancy, forensic auditing, taxation, customs and central excise, information technology, capital market, financial transactions (including banking) and enforcement agencies like CBI, IB and Directorate of Enforcement.

SFIO take up investigations of frauds characterized by (a) complexity and having inter-departmental and multi-disciplinary ramifications, (b) substantial involvement of public interest to be judged by size, either in terms of monetary misappropriation or in terms of persons affected, and (c) the possibility of investigations leading to, or contributing towards, a clear improvement in systems, laws or procedures.

Corporate frauds being very complex in nature involving violations of various economic laws, required to be investigated very fast. Investigation in such crime requires knowledge driven techniques, time bound planning and proper management framework. At present there is no special Act governing the functioning and jurisdiction of SFIO. Therefore SFIO functions within the ambit of Companies Act. Investigations are being carried out under Sections 235 and 237 of the Companies Act as was decided by the Central Government for the interim period. Under these provisions the Central Government or the Company Law Board or the Court can order investigation of any corporate body by the SFIO.

This office is in existence for the last about seven years and so far this organization has received 77 investigation cases and carried out investigation and submitted investigation report to the Ministry in 50 corporate fraud cases. Prosecutions have been sanctioned against the concerned officials/Directors of these corporates on the basis of these reports. On the basis of these sanctions, 744 prosecutions under the various provisions of Companies Act as well as IPC are presently pending in the competent courts while 39 convictions have been secured against the accused persons/entities.

Indian Institute of Corporate Affairs (IICA)

Indian Institute of Corporate Affairs (IICA) has been set up by the Ministry of Corporate Affairs as "A holistic capacity building institution and think tank for corporate regulation and reform, through synergized knowledge creation and management, global partnerships and real time solutions." The Institute has been registered under the Societies Registration Act, 1860 on 12 September 2008. The campus of the Institute is in advanced stage of construction at IMT, Manesar, Gurgaon and is expected to be completed by December 2010. Meanwhile, the Institute is operational from an interim office at Paryavaran Bhawan.

The Institute has undertaken the following activities :

- i) 3 training programmes for the officers of the Competition Commission of India;
- ii) 8 training programmes for the Indian Company Law officers;
- iii) 1 internship programme for the students of the National Law School, Bangalore;
- iv) 1 training workshop for the officers working at Serious Fraud Investigation Office;
- v) 2 International Roundtable/Forum;
- vi) 13 Workshops and Seminars;
- vii) 11 meetings of the various Forums under the Institute; and
- viii) Working with GTZ on project related to Corporate Social Responsibility.

Besides above, the Institute is also providing to the Ministry, policy inputs on issues relating to Convergence with IFRS, Corporate Social Responsibility, Corporate Governance, Companies Act, etc.

MCA21 e-Governance Project

The Ministry of Corporate Affairs (MCA) has implemented an e-Governance initiative known as 'MCA21 e-Governance Project'. It is one of the Mission Mode Projects of the Government of India under the National e-Governance Plan. The Project offers availability of all registry related services including filing of documents, registration of companies and public access to corporate information through a secure interactive portal. The portal services can be accessed/availed from anywhere, at any time that best suits the corporate entities, professionals and the public at large. Thus MCA21 has led to efficient delivery of services and supervision of corporate processes through the use of modern information technology.

The objective of the e-governance program is to improve the speed and certainty in delivery of MCA services in a transparent manner. This improvement is ensured primarily through the mechanism of secure electronic filing (e-filing) and easy online payment for all the services provided by the Registrar of Companies. It is, therefore, a significant step towards an end-to-end paperless delivery of the Government Services with widespread use of Digital Signature to carry out e-filing in a secure manner in conformity with the Information Technology Act, 2000. Starting with the launch of the first pilot on 18 February 2006 from Coimbatore and the major launch of the second pilot from Delhi by the Prime Minister on 8 March 2006, the programme was rolled out at all the ROC locations in a phased manner by 4 September 2006. Electronic filing, using Digital Signatures, was made compulsory from 16 September 2006 with the amendment in the Companies Act, 1956. The facility for online payment through Credit Card and Internet Banking has also been provided on the portal through a secure payment gateway, to ensure prompt recognition of payment and delivery of services.

The project has a sound foundation in its conceptualization, solution architecture, a sound BPR and deliverables measured through a strict regimen of service level benchmarks. A comprehensive outcome based project with focus on service delivery, the project envisages benefits for various categories of stakeholders as under :

- **Business:** enabled to register a company and file statutory documents quickly and easily, and in a manner that is convenient

- **Public** : to get easy access to relevant records and get their grievances redressed effectively
- **Professionals** : to be able to offer efficient services to their client companies
- **Financial Institutions** : to find registration and verification of charges easy
- **MCA** : to enure proactive and effective compliance of relevant laws and corporate governance
- **Employees** : enabled to deliver best of breed services_

The solution architecture provides for a Data Centre, which has been set up at Delhi, and a Disaster Recovery Centre at Chennai. In the event of any technology breakdown or disruption of services from the Data Centre, the services can be restored within a time-frame of 12 hours by taking recourse to the Disaster Recovery Centre. The project has been designed with provision for interoperability and interface with other Government Departments/Ministries.

The implementation of the programme has been remarkably smooth with the transition having been facilitated through a well structured communication plan with the external stakeholders and training and hand-holding of the MCA employees. Keeping in view that the stakeholders including corporate entities and the public may face certain difficulties in the beginning in switching over from the manual filing system to an electronic filing system, a network of facilitation centres at 52 locations throughout the country was set up. These facilitation centres provide complete range of services free of cost for e-filing of documents to the stakeholders who do not have the necessary computing/IT infrastructure or capability to use the same for e-filing from their own locations. The Project provides for continuation of this support for a period of three years from the Project Implementation Completion date without any charge to the stakeholders. This period of 3 years got over on 17 January 2010. Now, 48 such facilitation centres have been closed and, instead, Helpdesks have been set up at ROC locations. However, Showcase facilitation centres at 4 major Metropolitan cities of Delhi, Kolkata, Mumbai and Chennai would be continued till the end of the project cycle.

A scheme for Certified Filing Centres (CFCs) managed through the practising professionals was introduced following the concept of user charges. About 900 such CFCs have been authorised throughout the country in the beginning. The scheme expired on 3 August 2009 and currently 200 CFCs are in operation. The Ministry has decided to revive the scheme of CFCs for a further period of three years from 1 July 2010.

In a major improvement in the MCA21 Project, E-stamping facility for the selected MCA services has been introduced from 13 September 2009. This is an additional feature introduced under the MCA21 e-Governance programme. Based on specific authorisation, the electronic generation of stamp papers has been introduced to 29 major States and UTs.

The new introduction of e-stamping has reduced the time taken for the important services like Company incorporation, registration of foreign company and approval of changes in the authorized capital etc. It has also established a secure and cleaner system of duty collection to the State Government and the much needed facility of 'anytime and anywhere' operation of business to the stakeholders. Further, the initiative establishes a Green Project, eliminating use of paper drastically.

In addition to MCA21 Project, the Ministry has launched an e-Governance system for the Limited Liability Partnership Act 2008 in April 2009. This has been launched simultaneously of the commencement of the Act. E-filing facility has been made available to the stakeholders and processing of forms has been developed in electronic environment.

Enthused from the success of the above two projects, the Ministry has planned computerization and e-Governance of the Office of Official Liquidators. The project study is currently underway.

The operational statistics, as on 30 June 2010 is as follows :

Sl No.	Description	Number
Filing Status as on 30 June 2010		
1	Average portal hits per day	40.84 Million
2	Maximum number of documents filed on a day (30 October 2009)	48,947
3	Total filings through the system	104.53 lakh
4	Number of Companies Registered online	2,69,489
5	Total DIN issued till date	12.90 lakh
6	Company records viewed online	11.76 lakh
7	Number of Balance Sheets filed	16.42 lakh
8	Number of Annual Returns filed	16.52 lakh
9	Number of Din-3 filed	5.87 lakh
10	Total amount of e-stamping fee collected	1058.94 lakh

INTERNATIONAL COOPERATION

The governments of India and United Kingdom have constituted a Task Force. The first meeting of the Task Force was held in August 2007 in New Delhi. To have more meaningful interaction, both sides nominated nodal officers through whom formal channel of communication was established on various issues. The Task Force mainly deals with areas such as Regulatory and Statutory issues including Institutional Cooperation and Capacity Building, Corporate Governance, Corporate Social Responsibility, Standards in financial and related Professions, Insolvency and related issues, etc. The fourth meeting of the Task Force was held in London from 9-11 December 2009 and the Indian side was led by Shri R. Bandyopadhyay, Secretary, Ministry of Corporate Affairs (MCA).

A Joint Working Group of India-Japan Forum on convergence of International Financial Reporting Standards (IFRS) was set up. This working group will enable India and Japan to develop common understanding on Accounting Standards and also align them on the lines of IFRS. The First Joint Working Group meeting was held in Tokyo (Japan) on 26-28 July 2010.

15 Food and Civil Supplies

THE Department of Food and Public Distribution is responsible for management of the food economy of the nation. It undertakes various activities, such as procurement of food items, their storage, movement and delivery to the distributing agencies. A close watch is kept on production, and efforts are made to ensure their adequate availability at reasonable prices in different parts of the country.

The details of the production of foodgrains may be seen below :

PROCUREMENT OF WHEAT, RICE AND COARSEGRAINS DURING LAST 5 YEARS

(in Lakh Tonnes)

Marketing Year	Wheat	Rice	Coarse grains	Total
2005-06	147.85	276.56	11.54	435.95
2006-07	92.26	251.07	0.002	343.332
2007-08	111.27	284.91	2.03	398.21
2008-09	226.82	336.83	13.75	577.40
2009-10	253.82	236.87*	3.20*	493.89*

* As on 08.03.2010

The Department of Consumer Affairs under Ministry of Food and Consumer Affairs is responsible for the formulation of policies for Consumer Cooperatives, Monitoring Prices, availability of essential commodities, Consumer Movement in the country and Controlling of statutory bodies like Bureau of Indian Standards (BIS) and Weights and Measures.

ESSENTIAL COMMODITIES ACT, 1955

The Essential Commodities Act, 1955 was enacted to ensure the easy availability of essential commodities to consumers and to protect them from exploitation by unscrupulous traders. The Act provides for the regulation and control of production, distribution and pricing of commodities which are declared as essential for maintaining or increasing supplies or for securing their equitable distribution and availability at fair prices. Exercising powers under the Act, various Ministries/ Departments of the Central Government and under the delegated powers, the State Governments/UT Administrations have issued orders for regulating production, distribution, pricing and other aspects of trading in respect of the commodities declared as essential. The enforcement/implementation of the provisions of the Essential Commodities Act, 1955 lies with the State Governments and UT Administrations.

As per the decisions of the Conference of Chief Ministers held on 21 May 2001, a Group of Ministers and Chief Ministers had been constituted which recommended that the regulatory mechanism under the Essential Commodities Act, 1955 should be phased out. Accordingly, the restrictions like licensing requirement, stock limits and movement restrictions have been removed from almost all agricultural commodities. Wheat, pulses and edible oils, edible oilseeds and rice being exceptions, States have been permitted to impose some temporary restrictions in order to contain price increase of these commodities.

The list of essential commodities has been reviewed from time to time with reference to the production and supply of these commodities and in the light of economic liberalisation in consultation with the concerned Ministries/Departments administering these commodities. The Central Government is consistently following the policy of removing all unnecessary restrictions on movement of goods across the State boundaries as part of the process of globalisation simultaneously with the pruning of the list of essential commodities under the said Act to promote consumer interest and free trade. The number of essential commodities which stood at 70 in the year 1989 has been brought down to 7 at present through such periodic reviews.

In conformity with the policy of the Government towards economic liberalisation, Department of Consumer Affairs is committed to the development of agriculture and trade by removing unnecessary controls and restrictions to achieve a single Indian Common Market across the country for both manufactured and agricultural produce and to encourage linkage between agriculture and industry. With this object in view, this Department introduced the Essential Commodities (Amendment) Bill, 2005 in the Parliament in the winter session of 2005 to enable the Central Government to prune the list of essential commodities to the minimum by deleting all such commodities which have no relevance in the context of present improved demand and supply position and to facilitate free trade and commerce. Only those commodities considered essential to protect the interest of the farmers and the large section of the people "below the poverty line" are proposed to be retained under the Essential Commodities Act, 1955.

The Prevention of Black-marketing and Maintenance of Supplies of Essential Commodities Act, 1980 is being implemented by the State Governments/UT Administrations for the prevention of unethical trade practices like hoarding and black-marketing. The Act empowers the Central and State Governments to detain persons whose activities are found to be prejudicial to the maintenance of supplies of commodities essential to the community. Detentions are made by the States/UTs in selective cases to prevent hoarding and black-marketing of the essential commodities. As per reports received from the State Governments, 147 detention orders were issued under the Act during the year 2009. The Central Government and the State Governments also have the power to modify or revoke the detention orders. The representations made by or on behalf of the persons ordered for detention are considered and decided by the Central Government.

In the context of unprecedented rise in prices of some essential commodities in the mid 2006, there had been wide spread concern from various corners for taking immediate steps to control the rising trend of prices of essential commodities. Representations from the Chief Ministers of Punjab and Delhi and also from the Governments of Andhra Pradesh, Rajasthan and Maharashtra were received for restoration of powers under the Essential Commodities Act, 1955 for undertaking dehoarding operations in view of the assumption that there was speculative holding back of stocks particularly of wheat and pulses in anticipation of further rise in prices.

The situation was further reviewed by the Government and it was decided with the approval of the Cabinet to keep in abeyance some provisions in the Central Order dated 15 February 2002 for a period of six months with respect to wheat and pulses (whole and split), so as to tackle the crises on availability and prices of these commodities. Accordingly, the Government order No. (1373 (E) dated 29.8.2006 by virtue of which the words or expressions made in respect of purchase, movement,

sale, supply, distribution or storage for sale in the "Removal of (Licensing requirements, Stock limits and Movement Restrictions) on Specified Foodstuffs Order, 2002" notified on 15 February 2002 have been kept in abeyance for commodities namely wheat and pulses for a period of six months. This order however would not affect the transport, distribution or disposal of wheat and pulses (whole or split) to places outside the State, nor shall it be applicable to import of these commodities. Subsequently in 2008, the Central Government had kept in abeyance the operation of Central Order dated 15 February 2002 in respect of edible oils, edible oilseeds and rice for a period of one year. Later in 2008, this was extended to the commodity paddy also for a period from 1 September 2008 to 30 April 2009. The validity of all these orders have been extended from time to time and these orders are presently valid till 30 September 2010, in respect of pulses, edible oils, edible oilseeds, rice and paddy. Wheat as a commodity has been withdrawn from the ambit of the orders w.e.f. 1 April 2009. It was also decided with the approval of the Cabinet to further relax restrictions and to keep in abeyance some provisions of the Central Order dated 15 February 2002 for period of four months from the date of publication of Order with respect to Sugar so as to tackle the availability and prices of this commodity. Accordingly, an Order No. S.O. 649 (E) dated 9 March 2009 has been published in Gazette of India to this effect. This has subsequently been extended up to 30 September 2010.

CONSUMER CO-OPERATIVES

The consumer co-operative structure in the country has four tiers, with the National Co-operative Consumers Federation of India Ltd. (NCCF) at the national level. Thirty State Co-operative Consumers Organisations are affiliated to the NCCF. At the Central/ Wholesale level, there are 800 Consumer Co-operative Stores. At the primary level, there are 21,903 primary stores. In the rural areas, there are about 44,418 village level Primary Agricultural Credit Societies and Marketing Societies undertaking the distribution of consumer goods along with their normal business. In the urban and semi-urban areas, the consumer co-operative societies are operating about 37,226 retail outlets to meet the requirements of the consumers. The NCCF, besides undertaking distribution of consumer articles, also has a Consultancy and Promotional Cell for strengthening consumer co-operative societies engaged in the retailing activities. The NCCF with its Head Office at New Delhi, has 34 branches/sub-branches located in various parts of the country. The sales turnover achieved by the NCCF during the year 2008-09 was ₹ 857.95 crore as against ₹ 551.08 crore achieved during the year 2007-08. The bulk of the sales related to supply of grocery, general merchandise items and import/export (including outright and through Associate Shippers). During the year 2008-09, NCCF has exported 2,67,000 MTs of onion through associate shippers. The NCCF has earned a net profit of ₹ 1.58 crore during the year 2008-09.

- Right to be Heard: To be heard and to be assured that the interest would receive due consideration at appropriate fora.
- Right to Seek Redressal: To seek legal redressal against unfair or restrictive trade practices or exploitation.
- Right to Consumer Education: To have access to consumer education.

Basic Framework for Consumer Protection

Consumer protection initiatives by the Government hinge on 3 basic parameters. Firstly, ensuring a legal framework that comprises Consumer Protection Act. The Act has been recognised as one of the finest legislations enacted in any part of the world

and India can boast of being the only country having such specialized legislation for consumer protection. The CPA has a three tier Quasi-judicial machinery at the National, State and District level for hearing cases raised by consumers. Secondly, evolving standards for different products is necessary. Standards are the essential building block for quality and play a key role in consumer protection. Standards could be on technical requirement (specifications), improved specific standard terminology (glossary of terms), codes of practice or test methods or management systems standards. The standards are set generally by Government or inter-Governmental bodies but worldwide it is being recognised that voluntary establishment of standards plays an equally important role for protecting consumers. Finally, consumer awareness and education is the main ingredient for consumer protection.

National Action Plan on Consumer Protection

Consequent upon the 50th National Development Council Meeting, Planning Commission has identified consumer awareness, redressal and enforcement of Consumer Protection Act as priority areas for action by the Department of Consumer Affairs. The allocation for consumer protection activities was significantly enhanced in the last 2 years of the 10th plan.

Consumer Awareness Scheme in the 11th Plan

The Consumer Awareness Scheme for the 11th Plan amounting to a total of ₹ 4009 crore has been approved by the Cabinet Committee on Economic Affairs on 24 January 2008. This scheme has been formulated to give an increased thrust to a multi-media publicity campaign to make consumers aware of their rights. The slogan 'Jago Grahak Jago' has now become a household name as a result of publicity campaign undertaken in the last 3 years. Through the increased thrust on consumer awareness in the 11th Five Year Plan, the Government has endeavoured to inform the common man of his rights as a consumer. As part of the Consumer Awareness Scheme, the rural and remote areas have been given top priority. In a big country like India educating the consumers is a gigantic task. Government has taken up number of activities and schemes increasing consumer awareness in the country.

Multi-media Publicity Campaign

As part of the Multi-media publicity campaign, gist of the activities being undertaken is given below:

1. Publicity through print media using newspaper advertisements

To educate the consumers about their rights and responsibilities, the Department has been releasing small advertisements through DAVP in national dailies as well as regional newspapers in local languages in accordance with the New Advertisement Policy of the DAVP. 15,000 insertions were given for more than 24 major issues.

2. Publicity through electronic media by telecast of video spots

The Department has got produced video spots of 30 seconds duration on various consumer-related issues such as Grievance Redressal System, MRP, ISI, Hall Mark, Alternate Dispute Redressal System, Weights and measures, Rights of Consumers etc. which are being telecast through Dooradarshan, cable and satellite channels such as Sony, Star Plus, Zee News, Star News, Sun Network, ETV Network, ZEE TV Network, Discovery and other private popular satellite channels. Special programmes

have been telecast on DD News and Lok Sabha TV to highlight the issues relating to consumer awareness. Issues pertaining to rural and remote areas have been given prominence in various advertisement spots.

3. Telecast of video spots in north-east states

The Department has produced 6 video spots in Regional languages of North-Eastern States of 30 seconds duration on various consumer related issues.

4. Meghdoot Postcards

The Department, in consultation with Department of Posts has disseminated consumer awareness messages through Meghdoot Postcards to reach far-flung rural areas including north-east states.

5. Printed Literature

The Department has re-printed a folder entitled "Consumer Awareness Mission" containing the salient features of Consumer Protection Act 1986, Consumer Resource kits as well as pocket calendars and posters for distribution during various events such as IITE, street plays and also through the State Governments at grassroot level and post offices.

6. Nukkad Nataks (Street Plays)

To spread the consumer movement among youth the Department organized youth festival during 2009-10.

7. National Helpline

The Department has launched National Helpline and the Toll Free Number 1800-11-4000 which is being operated by Delhi University for counselling the Consumers to redress their grievance. The toll free number facility is available to consumers from 9.30 A.M. to 5.30 P.M. on all working days (Monday-Saturday). Through various advertisements adequate publicity has been given to National Helpline .

FORWARD TRADING AND FORWARD MARKETS COMMISSION

Forward Markets Commission (FMC) is a statutory body set up under Forward Contracts (Regulation) Act, 1952 and functions under the administrative control of the Ministry of Consumer Affairs, Food and Public Distribution. The FMC regulates forward markets in commodities through the recognised associations, recommends to the Government the grant / withdrawal of recognition to the associations organising forward trading in commodities and makes recommendations for general improvement of the functioning of forward markets in the country.

At present, there are 24 exchanges including three 'national level' exchanges which have been recognised for conducting futures/forward trading in India and all the commodities have been permitted for trading. During the current year "Thermal Coal "and "Carbon Credit" have also been allowed to be traded on recognized Commodity Exchanges.

In tune with the liberalisation of the commodity markets in India, all the operational exchanges have been persuaded to implement various reforms such as

online trading, time stamping, trade guarantee and settlement mechanism, one-third independent board representation and back-office automation. In addition to the setting up of the nation-wide multi-commodity exchanges, there are a number of ancillary areas, which are being looked at for the orderly and harmonious development of the commodity derivatives market. This includes removing a host of controls on movement, prices, etc. on commodities, sorting out certain tax related issues, standardisation, certification and warehousing issues, the usage of warehouse receipts, participation by diverse groups of players, banks, FIs and FIIs and so on. The Government is simultaneously making efforts in all these directions.

The commodity futures market is regulated under the provisions of the Forward Contracts (Regulation) Act, 1952 (FCR Act).

The cumulative total value of trade for the financial year 2009-10 up to the end of December 2009 was ₹ 55.26 lakh crore as against ₹ 36.85 lakh crore in the corresponding period for the financial year registering a growth of 49.96 per cent.

'Jago grahak jago' — an Initiative towards Consumer Education and Awareness

An enlightened consumer is an empowered consumer. An aware consumer not only protects himself from exploitation but induces efficiency, transparency and accountability in the entire manufacturing and services sector. Realising the importance of consumer awareness, the Government has accorded top priority to Consumer Education, Consumer Protection and Consumer Awareness. The most important milestone in Consumer Movement in the country has been the enactment of the Consumer Protection Act, 1986. The Act applies to all goods and services unless specially exempted by the Central Government, in all sectors whether Private, Public or Co-operative.

Consumer Protection Act, 1986

The Act enshrines all the consumers rights which are internationally accepted. As per the Act, the consumer protection councils have been established at Central, State and District levels to promote and protect the consumer rights. They are:

- Right to Safety: To be protected against the sale of goods and services which are spurious/hazardous for the life.
- Right to Information: To know the quality, quantity, weight and the price of goods/services being paid for, so that one is not cheated by unfair trade practices.
- Right to Choose: To be assured, wherever possible, access to a variety of goods and services at competitive prices.

8. Use of sports events

In order to reach maximum number of consumers, the Department has telecast video spots containing consumer related information during the popular sports events such as Tri-series cricket tournament.

9. Use of internet to generate consumer awareness

The advertisements brought out by the Department are also being displayed on the website of the Ministry www.fcanin.nic.in

10. Advertisements in journals of Publications Division

The Department has entered into a tie-up with Publications Division under the Ministry of Information and Broadcasting. As part of the tie-up advertisements are

being published to educate consumers in all the journals brought out by Publications Division such as *Yojana*, *Kurukshetra*, *Bal Bharati*, *Aajkal* and their regional language editions. Focussed articles on consumer awareness are being published in these magazines keeping in view their target readership. *Employment News*, the flagship publication of the Publications Division, which is the largest selling career weekly of its kind, occasionally publishes articles that are of interest to youngsters to keep them informed about their rights. The advertisements of the Department are also being published regularly in *Employment News/Rozgar Samachar* .

11. Focus areas on Consumer Awareness

The print advertisements and spots for the electronic media have focussed on such areas that are of interest to a large section of the society. Some of the examples are :

- Issues relating to MRP, wherein consumers have been educated about its concept and related issues.
- Awareness and education about standardisation and different standards brought about by government departments, such as ISI, Hallmark, Agmark etc.
- Education and awareness about various provisions of weights and measures.
- Issues in education sector where awareness about the source through which degree/validity of courses and recommendation status of different institutions has been given through print advertisements and advertisement spots.
- Issues concerning banking sector to educate consumers about their right to different services provided by banks as well as related areas of insurance and credit card facilities.
- Education and awareness about the 3-tier grievance redressal mechanism.
- Education and awareness about how to file a complaint and related formats and procedures.
- Issues relating to tourism sector to make the tourists aware about the precautions to be taken while dealing with travel agents.
- Awareness and education about misleading advertisements.

In a nutshell, efforts have been made to target all the major sectors where consumers face problems and the Department has adopted an active approach to react immediately.

12. Joint campaign with other Departments

'Jago Grahak Jago' has become the focal theme through which issues concerning the functioning of almost all Government Departments having a consumer interface have been addressed. To achieve this objective joint campaigns have been undertaken/ are being undertaken with a number of departments. The Department had run a joint campaign with Bureau of Energy Efficiency (BEE) to educate people about energy conservation and BEE star labels. A joint campaign with National Pharmaceuticals Product Authority is being devised to educate consumers about the various issues concerning pharma industry. Similarly, campaigns with Reserve Bank of India, FICCI and the Ministries of Urban Development (for real estate sector) and Human Resources Development (for education sector) are being finalised.

Special scheme on assistance to State Governments/UTs

Considering the fact that active involvement of State Governments in awareness campaign is crucial in taking forward the movement to rural, remote and backward areas, State/UT Governments have been actively associated in expanding the area of consumer awareness. In fact the effectiveness of the scheme is enhanced by the involvement of States/UTs. The provision for grant in-aid/support to States/UTs has been one of the key components of the Consumer Awareness Scheme.

The Department of Consumer Affairs provides publicity material such as posters, audio, video, folders, calendars, and magazines etc. to State Governments/UTs for distribution through panchayats in the rural areas.

Publicity around National Consumer Day

Every year 24th of December is celebrated as National Consumer Day commemorating the coming into effect of the Consumer Protection Act, 1986. The theme for National Consumer day in 2007 was 'Enlightened Consumer is the Empowered Consumer.' This theme was adopted to spread the message that a consumer will be able to safeguard his interests/rights only if he is aware about the rights and redressal mechanism available to him.

As part of the week-long celebration of National Consumer Day a function was organised in the capital. Various Central government Departments, State Governments, NGOs and other institutions organised a large number of programmes during this week to spread the message of consumer awareness.

The media units of the Ministry of Information and Broadcasting actively participated in spreading the message of consumer awareness through various journals brought out by the Publications Division as well as programmes conducted by other Media units. Articles stressing on consumer protection/consumer right were published in the magazines like *Vojana*, *Bal Bharati* and the flagship publication of the Division, *Employment News/Rozgar Samachar*. Cultural programmes were organised by the Song and Drama Division and Directorate of Field Publicity to commemorate national Consumer Protection Day.

Prasar Bharti also gave valuable contribution in spreading the message of consumer rights. Soft stories were mounted by DD News channel as well as several regional news units of Doordarshan, throughout the length and breadth of the country. DD-I and many regional Kendras of Doordarshan mounted special programmes highlighting consumer awareness and consumer protection. All India Radio and private FM channels also broadcast several audio programmes on this theme. Print media carried several news items/messages regarding National Consumer Day. Leading private sector portals also carried out feature items/news stories concerning consumer awareness on the basis of reference material provided by the Department. The Press Information Bureau published feature/backgrounders on consumer awareness thus carrying the message to the medium and small newspapers as well.

Collaboration with Deutsche Gesellschaft fur Technische Zusammenarbeit (GTZ) Gmbh for technical supports

The Department has collaborated with GTZ for providing technical support regarding production and development of publicity material. Under the GTZ Project,

advertisement spots pertaining to electronic media on the areas of MRP and consumer awareness regarding unhealthy trade practices were produced. Publicity material brought by the Department has also been analysed and suggestions for new publicity materials have been identified. The professional support being received through the joint partnership with GTZ has helped the Department in achieving professional standardisation. This cooperation also helped the Department in making such creatives/Ad spots that can appeal to the masses and have a lot of aesthetic appeal.

Concurrent Evaluation of publicity campaign

Planning Commission has time and again stressed on the need to undertake evaluation and monitoring studies on the publicity campaign undertaken by the Department. To meet this objective, following steps have been taken:

- (a) Monitoring by the Multi-Media Committee
- (b) Feedback from NCH/Core
- (c) IIMC Survey.

A comprehensive survey was undertaken by Indian Institute of Mass Communication (IIMC) that covered 12 States and 144 districts in the country. The survey presented an encouraging picture regarding the impact of publicity campaign carried out by the Department. The survey has brought out that about 62.56 per cent respondents from both rural and urban areas were aware of the publicity campaign run by the Department. Findings of the IIMC survey have been duly considered and incorporated while finalising the Media Plan for undertaking consumer awareness activities.

The Future Roadmap

The massive multi-media publicity to educate consumers and make them aware of their rights will have a long lasting impact not only on the end consumers but also of the entire manufacturing and services sector. The scheme will go a long way in introducing greater accountability and transparency in the services provided by the public as well as private sector since the end user i.e. consumer will be educated and aware enough to ask for best possible services in return for his hard-earned money. 'Jago Grahak Jago' is thus an initiative which empowers consumers by making them aware about their rights as well as about the Grievance Redressal Mechanism.

Creation of Consumer Welfare Funds (CWF) in States/UTs : After closure of all earlier schemes of funding by this Department viz. Consumer Awareness Scheme, Jagriti Shivir Yojana and District Consumer Information Centre, the State Governments and Union Territory Administrations have been impressed upon to create their own Consumer Welfare Funds. For strengthening financial support, the ratio of amount of seed money to be provided to the States/UTs has been increased from 1:10 to 50:50 (Centre: State). This ratio has further been enhanced to 90:10 in the case of 13 special category States as per decision taken in the 39th CWF Standing Committee meeting. So far, the State level Consumer Welfare Funds have been created in the States of Andhra Pradesh, West Bengal, Gujarat, Rajasthan, Orissa, Karnataka, Tripura, Sikkim, Maharashtra, Punjab, Uttar Pradesh, Jammu and Kashmir, Arunachal Pradesh, Goa, Haryana, Mizoram and Uttarakhand.

Consumer Clubs : This scheme was launched in 2002. There is provision for one consumer club in each Middle/High/Higher Secondary School/College affiliated to

a government recognised Board/University. A grant of ₹10,000 per consumer club is admissible under this scheme. This scheme has been decentralised and transferred to the State/UT Governments with effect from 1 April 2004. All interested NGO/VCOs have to apply to the Nodal Officer in the Food, PD and Consumer Welfare Department of the respective States/UTs.

Promoting involvement of Research Institutions/Universities/Colleges, etc. in consumer protection and welfare : This scheme has been launched with a view to sponsoring research and evaluation studies in the field of consumer welfare to provide solution to the practical problems being faced by the consumers, to sponsor seminars/workshops/conferences on the consumer related topics and to have necessary inputs for the formulation of policy/programme/scheme for protection and welfare of the consumers. The Indian Institute of Public Administration, New Delhi, has been identified as the nodal organisation to administer the scheme. Proposals received from Universities/Colleges/Research Institutions for conducting seminars, conferences, workshops, consumer festivals, research/evaluation studies are processed to sanction grants and then publish results of such studies in the form of books, monographs and pamphlets on consumer education and awareness.

National Consumer Helpline : A National Consumer Helpline project has been established in co-ordination with Delhi University, Department of Commerce. Consumers from all over the country can dial toll-free number 1800-11-4000 and seek telephonic counselling for problems that they face as consumers. The Helpline intends to deal with problems related to telecom, courier, banking, insurance, financial services, etc. The Helpline was launched on 15 March 2005, i.e. World Consumer Rights Day.

Consumer Online Research and Empowerment (CORE) Centre : A Consumer Online Research and Empowerment (CORE) Centre has been set up in collaboration with Consumer Co-ordination Council (CCC). The CORE Centre is intended to provide the most scientific and effective system of collection and dissemination of consumer related information to generate consumer awareness and empowerment of all sections of the society. It also provides e-counselling and mediation for consumer problems. The CORE project was formally launched on 15 March 2005.

BUREAU OF INDIAN STANDARDS

Bureau of Indian Standards (BIS) is a national standards body engaged in the preparation and implementation of standards, operation of certification schemes both for products and systems, organisation and management of testing laboratories, creating consumer awareness and maintaining close liaison with international standards bodies.

General

Bureau of Indian Standards (BIS) came into existence, through an Act of Parliament on 1 April 1987, with a broadened scope and more powers taking over the staff, assets, liabilities and functions of erstwhile Indian Standards Institution (ISI) with following objectives.

- Harmonious development of activities of standardization, marking and quality certification
- To provide new thrust to standardization and quality control
- To evolve a national strategy for according recognition to standards and integrating them with growth and development of industrial production and exports.

BIS is involved in multifarious activities like Standards Formulation, Certification, Product/Schemes, Laboratory Services, International Activities, Consumer -related Activities, Promotional Activities, Training Services, Information services, Sale of Standards and Publications.

Standards formulation

Under Standards formulation, it is engaged in formulation of Indian Standards for 14 sectors namely Chemicals, Food and Agriculture, Civil, Electrical, Electronics and Telecommunications and Information Technology, Mechanical Engineering, Management and Systems, Metallurgical Engineering, Petroleum, Coal and related Products, Medical and Hospital Planning, Textile, Transport engineering and Production and General Engineering and Water Resources under Division Councils which have 308 Sectional Committees working under them.

Product Certification Scheme

BIS Product Certification Scheme is basically voluntary in nature. However, keeping in view the health and safety of the consumer, it has been made mandatory for 68 items by the Government through various statutory measures such as Prevention of Food Adulteration Act, Coal Mines Regulations and Indian Gas Cylinders Rules besides BIS Act. Some of the items brought under mandatory certification on consideration of health and safety are milk powder, packaged drinking water, LPG cylinders, oil pressure stoves, clinical thermometers etc.

All foreign manufacturers of products who intend to export to India are required to obtain a BIS product certification licence. Towards this, BIS launched its Product Certification Scheme for overseas manufacturers in the year 1999. Under the provisions of this scheme, foreign manufacturers can seek certification from BIS for marking their product(s) with BIS Standard Mark. Under the scheme for Indian importers, Certification Marks Licence can be granted to Indian importers for the product imported into the country and are not covered under Regulatory Requirements. Indian importers can apply for BIS licence on such products and they are treated as Indian manufacturers. Three licences are in operation under this scheme. BIS also runs other certification schemes like IECEE-CB, IECQ and IECES Schemes of IBC under different provisions. India is a certifying member of the IEC System of Quality Assessment of Electronic Components (IECQ) and IEC System for Conformity Testing to Standards for Safety of Electrical Equipment (IECEE).

Further, BIS has taken new initiatives like simplification of procedure for grant of licence, basically to reduce the procedural time. This has yielded some encouraging results.

Laboratories

To support the activities of product certification, BIS has a chain of 8 laboratories. These laboratories have established testing facilities for products of chemical, food, electrical and mechanical disciplines. Approximately 25000 samples are being tested in the BIS laboratories every year. In certain cases where it is economically not feasible to develop test facilities in BIS laboratories and also for other reasons like overloading of samples, equipment being out of order, etc. the services of outside approved laboratories are also being availed. Except for the two labs, all the other labs are NABL (National Accreditation Board for Testing and Calibration Laboratories)

accredited. BIS has recognized about 116 laboratories for product certification purposes. BIS has undertaken the project of modernization of all its testing laboratories in order to increase the in-house capacity of testing of samples as well as to reduce the time taken in testing.

Hallmarking

Hallmarking of Gold Jewellery started in April 2000 on voluntary basis under BIS Act 1986. It is aimed at to protect the consumer's interest and providing third party assurance to consumers on the purity of gold. The number of licences for Hallmarking of gold jewellery has grown from 5403 on 31 March 2008 to 6568 as on 31 March 2009 and 7185 as on 31 December 2009. The number of gold jewellery/artefacts hallmarked as on 31 March 2009 was 191.33 lakh as against 171.66 lakh as on 31 March 2008. During the first nine months of the 2009-10, 140.17 lakh articles have been hallmarked. The number of BIS recognized assaying and hallmarking centres as on 31 December, 2009 was 149 as against 91 on 31 March 2008 and 137 on 31 March 2009. The number of silver licences has grown from 402 on 31 March 2008 to 463 on 31 March 2009 and further to 514 as on 31 December 2009.

QUALITY MANAGEMENT SYSTEMS CERTIFICATION SCHEME

BIS continued to provide the following Certification services as per the corresponding standards for management systems:

Quality Management System (QMS) Certification Scheme as per IS/ISO 9001:2008

The Scheme launched in September 1991 is being operated under the provisions of the Bureau of Indian Standards Act, 1986. The Scheme is being operated in accordance with ISO/TEC 17021 Conformity Assessment Requirements for bodies providing audit and certification of management systems During 2008-09 and 2009-10 (April-December 2009) 76 and 44 new licences were granted under the Scheme making a total of operative licences to 863 as on 31 December 2009 covering industrial sectors such as chemicals, textiles, plastic, cement, electricity generation, pharmaceuticals, banking, telecommunications, health sector, construction, education, wood, insurance, dairy plants, engineering services etc. The standard for Quality Management Systems has been revised to IS/ISO 9001, 2008 and all new certificates and revision of existing certificates are being done as per IS/ISO 9001:2008 only. BIS has also trained its auditors and subcontractors for the revised standard.

Environmental Management System (QMS) Certification Scheme as per IS/ISO 14001:2004

The Scheme launched as per IS/ISO 14001, continues to be popular. It is operated as per International criteria laid down in ISO/IEC 17021. During 2008-09 and 2009-10 (April-December 2009), 10 and 11 new licences respectively have been granted making a total of operative licences to 137 as on 31 December 2009. These licenses cover technology areas like integrated steel plants, thermal power plants, aeronautical industries, atomic power stations, textiles, plastic, cement, construction, electrical and telecommunication cables, petroleum refinery, insecticides, paper, industrial and explosive chemicals, railway wagon workshops, mining etc.

Occupational Health and Safety Management System (OHSMS) Certification Scheme as per IS 18001:2007

The Scheme launched as per IS 18001 in January 2003 essentially enables an organization to define, plan and manage a policy and objectives, taking into account

legislative requirements and information about significant hazards and risks, which the organization can control and over which it can be expected to have an influence, to protect its employees and others, whose health and safety may be affected by the activities of the organization. During 2008-09 and 2009-10 (April-December 2009) 7 and 5 new licenses respectively have been granted making a total of operative licences to 39 as on 31 December 2009. The licences cover technology areas like thermal power plants, ceramic industry, cycle industry, gas power station, health services and employee development centre.

Hazards Analysis and Critical Control Point (HACCP) Scheme as per IS 15000:1998

Hazard Analysis and Critical Control Point (HACCP) is a process control system designed to identify and prevent microbial and other hazards in food production. HACCP can be applied throughout the food chain from primary producer to final consumer. The Scheme is technically equivalent to the Codex Alimentarius Commission Standard ALINORM—97/13A, the International Standard on the subject. Under the Scheme 58 licences were in operation as on 31 December 2009. The scheme helps exporters in the field of food and food products, specially for export to Europe and countries like USA. BIS also operate a stand alone HACCP Certification Scheme as per IS 150000 and 2 licences were in operation as on 31 December 2009.

Food Safety Management System (FSMS) Certification Scheme as per IS/ISO 22000:2005

This system is designed to allow all types of organizations within the food chain to implement a food safety management system. As on 31 December 2009, three FSMS licences were in operation.

Service Quality Management System (SQMS) Certification Scheme as per IS 15700:2005

The Scheme launched during April 2007 is based on IS 15700:2005 Quality Management Systems Requirements for services delivery by public service organizations. This standard focuses mainly on the following three key elements:

- Formulation of a realistic Citizen's Charter through a consultative process;
- Identification of services rendered, service delivery processes, their control and delivery requirements; and
- An effective process for complaints handling.

As on 31 December 2009, one licence was in operation.

International Activities

Since its inception in 1947, the then ISI and now BIS has been an active member of international organizations namely, ISO and International Electrotechnical Commission (IEC). BIS represents India as Member Body in ISO and IEC. It holds Participating Membership (P) status in 259 Technical Committees/ Sub-committees of ISO and 62 Technical Committees/ Sub-committee of IEC, whereas it is Observer Member (O) on 308 Technical committees/ Sub-committees of ISO and 84 Technical Committees/ Subcommittees of IEC. It participates in various policy-making committees of these international standards bodies. BIS also holds secretariat of some of the important ISO/IEC Committees which are of trade interest to India. As member of ISO, BIS also takes active part in the development of International Standards with a view to protecting the interests of Indian trade and industry. BIS is actively involved in Regional

and Bilateral Cooperation Programmes pertaining to standardization, conformity assessment and accreditation etc.

Consumer Protection

To meet the growing expectations of consumers in the country, BIS has established a separate department with a specific mandate of providing consumer protection and welfare and dealing with public grievances. This department maintains liaison with Central Consumer Protection Council and consumer associations and co-ordinates with the Ministry of Consumer Affairs and Public Distribution on consumer issues. It is guided in its activities by a Consumer Policy Advisory Committee which advise BIS on all policy matters relating to efficient discharge of the functions and for making standardization and certification activities user-friendly. A well-defined procedure has been established for handling complaints. The complaints can also be lodged online, and are monitored regularly.

Promotion of Indian Standards assumes great significance and has been a prime objective of BIS. All standards are generally voluntary in nature. Promotional activities are, therefore, essential to implement the standards for deriving the desired benefits.

The promotion of standardization involves varied interests ranging from ordinary consumers to educational institutions. To propagate the concept of standardization and quality systems among small scale industries, discussions and video film shows are organised where the participants are exposed to the concepts of standardization, quality system, product certification and other BIS activities.

Rajiv Gandhi National Quality Award

With a view to encouraging manufacturers and service organizations to strive for excellence, Rajiv Gandhi National Quality Award was instituted by the Bureau in 1991. This annual award compares well with similar international awards, such as, Malcolm Baldrige National Quality Award of USA and European Quality Award. The assessment for this award is made on the basis of parameters, such as, Leadership, Policies objectives and Strategies; Human Resources Management; Resources, Processes; Customer Focus; Employees' Satisfaction; Business Results and Impact on Environment and Society.

Information and SSI Facilitation Cell

Marching further ahead on the path of 'total customer satisfaction' BIS had set up a single window Information and SSI Facilitation Cell at its headquarters in New Delhi which became operational since 1997 with the aim of providing variety of information/ assistance. A number of entrepreneurs, consumers and professionals visit this centre.

National Institute of Training for Standardization (NITS)

To impart training to technical and management personnel from industry, consumer organizations, public sector undertakings, government bodies and developing countries, BIS has established the National Institute of Training for Standardization (NITS) at NOIDA (U.P.)

NITS conducts training on Quality Management Systems as per IS/ISO 9001, Environment Management Systems as per IS/ISO 14001, Occupational Health and

Safety Management Systems as per IS 18001, Food Safety Management Systems as per IS/ISO 22000, Hazard Analysis and Critical Control Points (HACCP) and Laboratory Management Systems as per IS/ISO/IEC 17025. It also conducts International Training Programmes in Standardization and Quality Systems and on Management systems for developing countries of Asia, Africa, Europe and Latin America every year since 1968. NITS also conducts training programmes for BIS employees. On an average, about 630 personnel have been trained/retrained every year since last six years.

Library

BIS Technical Library is a national resource centre for information on standards and related matters and meets the needs of industry, trade, government, researchers and consumers. It is the largest library of standards in the South Asian Region, covering a floor area of 1000 square metres. The collection includes about 6 lakh standards from all over the world and 50,000 technical books. The Bureau's library system comprises the Headquarters' Library (New Delhi) and four Regional Office Libraries at Mumbai, Kolkata, Chandigarh and Chennai. BIS has also been designated as WTO/TBT Enquiry Point by the Ministry of Commerce, Government of India under the Technical Barriers to Trade Agreement of World Trade Organization.

BIS has brought out all Indian standards on CD-ROMs through a franchisee with a view to computerizing its sales points as well as to provide standards in electronic form directly to the customers. The product has been well received by the industry and provides excellent full-text searching facility in over 18,000 standards formulated by the Bureau.

BIS has a website with domain name *www.bis.org.in* which includes its Hindi version also. Information of interest to the Indian industry as well as consumers, relating to various activities and schemes of the Bureau, such as certification, standards formation, consumer affairs, various application forms, laboratory services and other support services, is available on the website.

Finance and Account

For over a decade now, BIS is self-reliant in meeting its non-plan expenditure without any budgetary support from the Government of India. Financial resources of BIS are broadly mobilized under the following heads:

- (a) product Certification
- (b) Management System Certification
- (c) Hallmarking
- (d) Sale of BIS Standards and Publications
- (e) Training Institute.

BUFFER STOCKS

According to the current Buffer Stocking Policy of foodgrains, the total minimum stock in the Central Pool held by Public Agencies as on different dates in a year should be as under:

(lakh tonnes)

Date	Wheat	Rice	Total
1 April	40.00	122.00	162.00
1 July	171.00	98.00	269.00
1 October	110.00	52.00	162.00
1 January	82.00	118.00	200.00

(Adhoc norms pending finalisation of revised buffer norms)

In addition, Government has also decided to maintain a strategic reserve of 36 lakh tonnes of wheat and 20 lakh tonnes of rice.

STOCK POSITION

The stock of foodgrains in the Central Pool as on 1 January 2010 was 476.95 lakh tonnes which comprised 243.53 lakh tonnes of Rice, 230.92 lakh tonnes of Wheat and 2.50 lakh tonnes of coarse grains.

DISTRIBUTION

The offtake of foodgrains (wheat and rice) from the Central Pool under Targeted Public Distribution System (TPDS) during the financial year 2009-10 (upto December 2009) was 322.17 lakh tonnes. This comprised 124.44 lakh tonnes under Below Poverty Line (BPL), 74.09 lakh tonnes under Antyodaya Anna Yojana (AAY) and 123.64 lakh tonnes under Above Poverty Line (APL). The offtake under various Welfare Schemes was 25.98 lakh tones during 2009-10 (upto December 2009). In addition, there has been an offtake of 1.75 lakh tonnes under Defence etc., 0.17 lakh tonnes under WFP, 3.50 lakh tonnes under Relief and 4.78 lakh tonnes under Open/Tender Sale and Export.

IMPORT AND EXPORT

Export of rice and wheat from the Central Pool stocks has been stopped w.e.f. 11 August 2003. After meeting the pending commitments of exports, sale of foodgrains for commercial exports has been totally stopped w.e.f. 1 October 2004. As per order on 25 March 2008 of this Department, export of rice, wheat and wheat products from Central Pool is to remain discontinued till further orders. However, humanitarian assistance/aid to needy countries has been given, from time to time, at the prevailing export price on the date of lifting.

Initially export of non-basmati rice from the country was banned vide DCFTs Notification dated 15 October 2007. Subsequently Minimum Export Price (MEP) was fixed for export of basmati rice, which was revised from time to time.

Government on 20 November 2009 decided that in view of stock position of rice in Central Pool and estimated procurement of 260 lakh tonnes in KMS 2009-10, no import of rice for Central Pool is required.

After 5 March 2009 Government approved the export of 10 lakh tonnes of non-basmati rice to 21 African countries and Sri Lanka.

WELFARE SCHEMES

MID-DAY MEAL SCHEME

The Mid-day Meal Scheme was launched and implemented by the Ministry of Human

Resource Development with a view to enhancing enrolment, retention and attendance and simultaneously improving nutritional levels among children with effect from 15 August 1995 for the benefit of students in primary schools, initially in 2408 blocks in the country. By the end of 1997-98 the scheme was introduced in all the blocks of the country. The Scheme presently covers students of Class I-VIII of Government and Government aided schools, Education Guarantee Scheme/Alternative and Innovative Education Centres (EGS/AIE) to improve nutritional status of children and encouraging them to actively participate in the class room activities.

The Department of Food and Public Distribution makes allocation of annual requirement of foodgrains under the Scheme to Department of School Education and Literacy, Ministry of Human Resource Development. Further State/UT-wise allocation of foodgrains is made by that Department. Food Corporation of India (FCI) releases foodgrains to States/UTs at BPL rates as per allocation made by Deptt. of School Education and Literacy. Allocation/offtake of foodgrains under the scheme during the 10th Plan and the first three years of the 11th Plan 2007-08, 2008-09 and 2009-10 are as under :

(Figures in lakh tonnes)

Year	ALLOCATION			OFFTAKE		
	Rice	Wheat	Total	Rice	Wheat	Total
2002-03	18.84	9.40	28.24	13.75	7.45	21.20
2003-04	17.72	9.08	26.80	13.49	7.20	20.69
2004-05	20.14	7.35	27.49	15.41	5.92	21.33
2005-06	17.78	4.72	22.50	13.64	3.63	17.24
2006-07	17.22	4.38	21.60	13.05	3.50	16.55
2007-08	19.98	5.30	25.28	3.95	14.41	18.36
2008-09	21.48	4.78	26.26	15.82	4.37	20.19
2009-10*	22.85	4.90	27.75	13.51	3.41	16.92

* Offtake up to December 2009.

WHEAT-BASED NUTRITION PROGRAMME

The Scheme is implemented by the Department of Women and Child Development. The foodgrains allotted under this Scheme are utilised by the States/UTs under Integrated Child Development Scheme (ICDS) for providing nutritious/energy food to children below 6 years of age and expectant/lactating women.

Allocation/offtake of foodgrains under the scheme from 2002-03 to 2009-10 is as under :

(Figures in lakh tonnes)

Year	ALLOCATION			OFFTAKE		
	Rice	Wheat	Total	Rice	Wheat	Total
2002-03	1.47	1.75	3.22	0.69	2.13	2.82
2003-04	1.04	3.72	4.76	0.61	3.16	3.77
2004-05	1.16	3.42	4.58	0.85	3.57	4.42
2005-06	1.50	2.82	4.32	2.07	2.73	4.80
2006-07	1.98	3.19	5.17	1.61	2.98	4.59
2007-08	2.31	3.20	5.51	1.79	2.74	4.53
2008-09	3.30	4.80	8.10	2.15	3.92	6.07
2009-10*	3.44	5.82	9.26	1.81	3.75	5.56

* Offtake up to December 2009.

Offtake includes backlog quota also.

SCHEME FOR SUPPLY OF FOODGRAINS TO HOSTELS/WELFARE INSTITUTIONS (5 PER CENT OF BPL ALLOCATION)

With a view to meeting the requirement of Hostels/Welfare Institutions, viz. N.G.Os/Charitable Institutions which help the shelterless/homeless poor and other categories not covered under TPDS or under any other Welfare Schemes, an additional allocation of foodgrains (rice and wheat) equal to 5 per cent of the BPL allocation of each State/UT is made to States/UTs at BPL rates. This scheme was introduced during 2002-03 to liquidate the stocks of foodgrains.

As per the directions of the Parliamentary Standing Committee, the allocation under the scheme was reviewed and rationalized on the basis of average offtake of foodgrains during the last 3 years.

Allocation/offtake of foodgrains under the scheme from 2002-03 to 2009-10 is as under :-

(Figures in lakh tonnes)

Year	ALLOCATION			OFFTAKE		
	Rice	Wheat	Total	Rice	Wheat	Total
2002-03	6.58	4.53	11.11	1.30	0.14	1.44
2003-04	6.25	5.19	11.44	3.15	0.23	3.38
2004-05	6.06	4.80	10.86	1.94	0.75	2.69
2005-06	3.47	2.44	5.91	2.37	0.27	2.64
2006-07	3.26	0.57	3.83	2.76	0.25	3.01
2007-08	2.13	0.57	2.70	1.61	0.33	1.94
2008-09	2.96	1.12	4.08	2.43	0.41	2.84
2009-10*	2.51	0.61	3.12	2.08	0.44	2.52

* Offtake up to December 2009.

Offtake includes backlog quota also.

Note : The data includes allocation and offtake of SC/ST/OBC Hostels also.

During 2005-06, the allocation and offtake of foodgrains under the scheme were reviewed. On the basis of offtake, for last three years, of States/UTs, (on recommendation of the Parliamentary Standing Committee for Food) the allocation to the States/UTs was rationalized w.e.f. August 2005

SCHEME FOR SUPPLY OF FOODGRAINS FOR SC/ST/OBC HOSTELS

This scheme was introduced in October 1994. Ministry of Consumer Affairs, Food and Public Distribution is the nodal Ministry for the scheme. Allocation of foodgrains was made for the first time during 2001-02 to nineteen States on the recommendation of Ministry of Social Justice and Empowerment. The residents of the hostels having 2/3rd students belonging to SC/ST/OBC are eligible to get 15 kg foodgrains per resident per month. In such hostels, foodgrains are provided for all resident students, including those who belong to other categories. Only Karnataka and Andhra Pradesh are availing this scheme.

Allocation/offtake of foodgrains under the scheme from 2002-03 to 2009-10 is as under :

(Figures in lakh tonnes)

Year	ALLOCATION			OFFTAKE		
	Rice	Wheat	Total	Rice	Wheat	Total
2002-03	0.36	-	0.36	-	-	-
2003-04	1.63	-	1.63	-	-	-
2004-05	1.34	-	1.34	-	-	-
2005-06	-	0.14	0.14	-	-	-
2006-07	1.62	0.14	1.76	-	-	-
2007-08	0.28	0.14	0.42	-	-	-
2008-09	1.14	0.65	1.79	-	-	-
2009-10*	1.32	0.18	1.50	-	-	-

* Offtake up to December 2009.

Note : Offtake figures are combined with offtake against 5 per cent BPL allocation w.e.f. 2002-03.

ANNAPURNA SCHEME

Ministry of Rural Development launched this scheme in 2000-01. Indigent senior citizens of 65 years of age or above who though eligible for old age pension under the National Old Age Pension Scheme (NOAPS) but are not getting the pension are covered under the Scheme. 10 kg of foodgrains per person per month are supplied free of cost under the scheme.

From 2002-03, the scheme has been transferred to State Plan along with the National Social Assistance Programme comprising the National Old Age Pension Scheme and the National Family Benefit Scheme. The funds for the transferred scheme are being released by the Ministry of Finance as Additional Central Assistance (ACA) to the State Plan and the States have the requisite flexibility in the choice of beneficiaries and implementation of the Scheme. The implementation of the Scheme at the ground rests with the States/UTs.

The foodgrains are released to the State Governments on the existing norms at BPL rates. Allocation/offtake of foodgrains under the scheme from 2002-03 to 2009-10 is as under :-

(Figures in lakh tonnes)

Year	ALLOCATION			OFFTAKE		
	Rice	Wheat	Total	Rice	Wheat	Total
2002-03	0.54	0.24	0.78	0.53	0.62	1.15
2003-04	0.56	0.67	1.23	0.45	0.64	1.09
2004-05	0.90	0.77	1.67	0.64	0.68	1.32
2005-06	0.90	0.77	1.67	0.69	0.70	1.39
2006-07	0.90	0.70	1.67	0.61	0.29	0.90
2007-08	0.92	0.77	1.69	0.70	0.30	1.00
2008-09	0.92	0.77	1.69	0.64	0.31	0.95
2009-10*	0.61	0.34	0.95	0.40	0.21	0.61

* Offtake up to December 2009.

NUTRITIONAL PROGRAMME FOR ADOLESCENT GIRLS (NPAG)

A Pilot Project – “Nutritional Programme for Adolescent Girls” (NPAG) was launched by the Planning Commission initially for a period of two years, i.e. 2002-03 and 2003-04 in 51 identified districts, i.e. in two of the backward districts in each of the major States and most populous district (excluding the capital district) in remaining smaller States/UTs in the country. This scheme was restarted in 2005-06. Ministry of Women and Child Development administers the scheme at the central level and State/UT Governments implement the scheme at the state level.

As per the revised guidelines of the programme, adolescent girls (age group 11-19 years) as identified by weight would be covered irrespective of financial status of the family to which they belong. Free foodgrains @ 6 kg. per beneficiary per month is provided to the adolescent girls (weight < 35 kg.) initially for a period of three months. Those beneficiaries, who cross the cut off point for weight, would not receive foodgrains any further.

Department of Food and Public Distribution provides foodgrains at BPL rates to the States/UT Governments for implementing the programme through Ministry of Human Resources Development. Annual allocation and offtake of foodgrains under the programme from 2002-03 to 2009-10 are as under :-

(Figures in lakh tonnes)

Year	ALLOCATION			OFFTAKE		
	Rice	Wheat	Total	Rice	Wheat	Total
2002-03	0.40	0.22	0.62	0.11	0.87	0.98
2003-04	2.22	0.29	2.51	0.63	0.00	0.63
2004-05	No allocation					
2005-06	0.68	0.35	1.03	0.40	0.08	0.48

2006-07	0.41	0.07	0.48	0.45	0.07	0.52
2007-08	0.45	0.07	0.52	0.35	0.03	0.38
2008-09	0.71	0.40#	1.11	0.46	0.13	0.59
2009-10*	0.55	0.19@	0.74	0.13	0.04	0.17

Includes a quantity of 10,000 MT of Maize.

@ Includes a quantity of 4469.52 MT of Maize.

* Offtake up to December 2009.

EMERGENCY FEEDING PROGRAMME (EFP)

Emergency Feeding Programme is a food-based intervention targeted for old, infirm and destitute persons belonging to BPL households to provide them food security in their distress conditions. This was introduced in May 2001. The Scheme is being implemented by Government of Orissa in eight KBK (Kalahandi Bolangir Koraput) Districts. They include Malkangiri, Nawarangpur, Naupada, Rayagada and Sonepur covering two lakh beneficiaries. Under the scheme, foodgrains (rice) at BPL rates is being allocated to State Government on the recommendation of Ministry of Social Justice and Empowerment since May 2001 by Department of Food and Public Distribution.

Following quantities of rice has been allocated from 2001-02 to 2009-10 under the Scheme :

(Figures in lakh tonnes)

Year	Annual allocation	Offtake
2002-03	0.14	0.13
2003-04	0.14	0.14
2004-05	0.14	0.14
2005-06	0.14	0.12
2006-07	0.17	0.14
2007-08	0.17	0.16
2008-09	0.18	0.17
2009-10*	0.18	0.13

*Offtake up to December 2009.

VILLAGE GRAIN BANKS SCHEME

Village Grain Bank Scheme was earlier implemented by the Ministry of Tribal Affairs in 11 States. However, since 24 November 2004, the scheme is being implemented by the Department Food and Public Distribution. The main objective of the scheme presently being implemented is to provide safeguard against starvation during the period of natural calamity or during lean season when the marginalized food insecure households do not have sufficient resources to purchase rations. Such people in need of foodgrains will be able to borrow foodgrains from the Village Grain Bank.

The grain banks are to be set up in food areas like the drought prone areas, the hot and cold desert areas, tribal areas and the inaccessible hilly areas which remain cut off because of natural calamities like floods, etc. These villages are to be identified by the concerned State Government/Union Territory. The scheme envisages inclusion of BPL/AAY families in the villages to be identified by the State Government in food deficit areas. The quantity to be lent and the period of repayment is to be decided by

the Group themselves. Village Panchayat/Gram Sabha, Self Help Group for NGOs etc. identified by the State Government are eligible for running the Grain Banks.

Details of VGBs sanctioned and expenditure incurred since 2005-06 have been as follows :

Year	VGBs Sanctioned	States where sanctioned	Amount (Rs. Crore)
2005-06	3282	Andhra Pradesh, Orissa, Chhattisgarh, Madhya Pradesh, Jharkhand, Tripura and Meghalaya	19.76
2006-07	8191	Andhra Pradesh, Assam, Chhattisgarh, Gujarat, Himachal Pradesh, Maharashtra, Manipur, Nagaland, Sikkim, Uttarakhand, Uttar Pradesh, and West Bengal	51.79
2007-08	2598	Bihar, Gujarat, Kerala, Manipur, Madhya Pradesh, Nagaland, Orissa, Rajasthan and West Bengal	17.44
2008-09	2407	Manipur, Tripura, Uttar Pradesh and Madhya Pradesh	16.81
2009-10	2214	Andhra Pradesh, West Bengal and Nagaland	17.23
Total	18692		123.03

TARGETTED PUBLIC DISTRIBUTION SYSTEM (TPDS)

In June 1997, the Government of India launched the Targetted Public Distribution System (TPDS) with focus on the poor. Under the TPDS, States are required to formulate and implement foolproof arrangements for identification of the poor for delivery of foodgrains and for its distribution in a transparent and accountable manner at the FPS level. The scheme, when introduced, was intended to benefit about 6 crore poor families for whom a quantity of about 72 lakh tonnes of food grains was earmarked annually. The identification of the poor under the scheme is done on the basis of Foodgrain being delivered to Ration Card holder by Fair Price Shop.

Department of Food and Public Distribution by the States as per State-wise poverty estimates of the Planning Commission for 1993-94 was based on the methodology of the "Expert Group on estimation of proportion and number of poor" chaired by Late Prof. Lakdawala. The allocation of food grains to the States/UTs was made on the basis of average consumption in the past, i.e. average annual offtake of food grains under the PDS during the past ten years at the time of introduction of TPDS.

ANTYODAYA ANNA YOJANA (AAY)

In order to make TPDS more focused and targeted towards the poorest section of population, the "Antyodaya Anna Yojana" (AAY) was launched in December 2000 for one crore poor families. Initially AAY contemplated identification of one crore poorest of the poor families from amongst the BPL families covered under TPDS within the States and providing them foodgrains at a highly subsidised rate of ₹ 2/- per kg for wheat and ₹ 3/- per kg for rice. The States/UTs are required to bear the distribution cost, including margin to dealers and retailers as well as the transportation cost. Thus the entire food subsidy is being passed on to the consumers under the scheme.

The scale of issue that was initially 25 kg per family per month has been increased to 35 kg per family per month with effect from 1st April 2002.

The AAY Scheme has been expanded in subsequent years and presently it is covering 2.5 crore households.

IDENTIFICATION OF FAMILIES AND ALLOCATION OF FOODGRAINS

Identification of the Antyodaya families and issuing of distinctive Ration Cards to these families is the responsibility of the concerned State/UT Governments. Detailed guidelines were issued to the States/UTs for identification of the Antyodaya families under the expanded AAY. Allocation of foodgrains under the scheme is being made to the States/UTs on the basis of distinctive AAY Ration Cards issued to the identified families. So far 2.43 crore AAY families have been identified, AAY ration cards issued to them and foodgrains are being distributed to them.

INTERNATIONAL CO-OPERATION

INTERNATIONAL GRAINS COUNCIL (IGC)

India is a member of the International Grains Council (IGC) which was previously known as International Wheat Council up to 1995 and is an intergovernmental forum of exporting and importing countries for cooperation in wheat and coarse grain matters. It administers the Grains Trade Convention 1995. India being a member of the International Grains Council, this Department pays the annual membership contribution to International Grains Council. For the Fiscal year 2009-10, a sum of £17997.49 has been paid towards India's membership contribution to IGC.

WORLD FOOD PROGRAMME

Government of India is allocating food grains at BPL rates to the beneficiaries belonging to BPL category under the development schemes administered by International Organisations like World Food Programme. For the financial year 2009-10, an allocation of 48512 MT of foodgrains (Wheat: 40,986 MTs and Rice: 7,526 MTs) has been made at BPL rates to World Food Programme for their developmental schemes in the country for the various WFP supported/assisted projects under the New Country Programme 2008-12.

SAARC FOOD BANK

In pursuance to the decision taken in the 14th SAARC Summit held in New Delhi on 3-4 April 2007, the Heads of States of SAARC countries have signed the Agreement on establishing the SAARC Food Bank. As per agreement India's assessed share of Food Grains for the SAARC Food Bank is 1,53,200 MTs out of total share of 2,43,000 MTs of the reserve. Joint Secretary (IC) participated in the First meeting of the SAARC Food Bank Board held on 15-16 October 2008, Second meeting of SAARC Food Bank Board during 12-13 February 2009 held in Colombo, Sri Lanka and third meeting of SAARC Food Bank during 8-9 November 2009 held in Kabul, Afghanistan.

STORAGE AND WAREHOUSING

The objective of the Policy is to make available storage capacity required for (i) buffer and operational stock of foodgrains to cater to the Public Distribution System and (ii) general warehousing. The endeavour is to modernize storage capacity and to reduce dependence on the capacity under cover and plinth. There are three agencies in the public sector which are engaged in building large scale storage/warehousing capacity, namely, Food Corporation of India (FCI), Central Warehousing Corporation (CWC) and 17 State Warehousing Corporations (SWCs). While the capacity available with FCI is used mainly for storage of food grains, that with CWC and SWCs is used for storage of food grains and also other notified commodities. The position of covered storage/warehousing capacity available with the FCI/CWC/SWCs as on 31 December 2009 is given in the table below :

As on 31.12.2009

Agencies	Owned	Hired	Total
PCI	129.69	123.65	253.34
CWC	67.91	39.34#	107.25
SWCs	123.35	84.71*	208.06

Includes Covered Hired, Management and Open (Owned/Plinth/Hired)

* Inclusive of plinths.

NEGOTIABLE WAREHOUSE RECEIPT SYSTEM

The Warehousing (Development and Regulation) Act, 2007 was enacted by the Parliament in September 2007. The Act shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint. The Warehousing (Development and Regulation) Act, 2007 provides for negotiability of Warehouse receipts, development and regulation of Warehouses and establishment of a Warehousing Development and Regulatory Authority (WDRA).

The Warehousing Development and Regulatory Authority will register and accredit warehouses intending to issue negotiable warehouse receipts and put in place a system of quality certification and grading of commodities with a view to protecting the interest of holders of warehouse receipts against negligence, malpractices and fraud. The authority is in the process of being set up.

The introduction of negotiable Warehouse receipt system in the country will not only help farmers avail better credit facilities and avoid distress sale but will also safeguard financial institutions by mitigating risks inherent in credit extension to farmers. The pledging/collateralization of agricultural produce with a legal backing in the form of negotiable warehouse receipts will lead to increase in flow of credit to rural areas, reduce cost of credit and will spur related activities like standardization grading, packaging and insurance and in development of chain of quality warehouses.

MANAGEMENT OF FOODGRAINS

QUALITY STANDARDS FOR FOODGRAINS

The Government exercises due control over the quality of foodgrains procured for the Central/State Pool. The Quality Control Cell of the Ministry at New Delhi, Kolkata and Hyderabad monitor the quality of foodgrains being procured by FCI and State agencies for Central Pool as well as at the time of storage and distribution.

INDIAN GRAIN STORAGE MANAGEMENT AND RESEARCH INSTITUTE (IGMRI)

Indian Grain Storage Management and Research Institute (IGMRI), Hapur, is engaged in the training and RandD work relating to grain storage management. The Institute has three field stations at Hyderabad, Jorhat and Ludhiana. The IGMRI also conducts various training courses on storage, inspection of foodgrains, pest control, etc. for the officers of storage agencies, pest control operators, etc.

Upto 31 December 2009, 10 long/short-term training courses and 5 artisan trainings were conducted, 955 food grains samples for physical quality parameters, 267 samples for pesticide residue and 169 samples for mycotoxin contamination were analysed by IGMRI, Hapur and its field stations.

EDIBLE OILS

It has been the policy of the government to have an efficient management of edible oils so as to ensure its easy availability to consumers at reasonable prices, throughout the country. Oilseed production gained momentum with improving yields with the launching of the Technology Mission on Oilseeds by the Government in 1986. Potential of the secondary sources of edible oils like cotton seeds, copra, rice bran and oil bearing materials from tree and forest origin has also been exploited moderately and these sources are now contributing to the level of 25 per cent of the domestic vegetable oil production. The country has been resorting to import of edible oils to bridge the gap between the demand and supply. Edible Oils, which was in the negative list of imports was first decanalised partially in April 1994. The import policy was further liberalised from 1 April 1999 allowing import of all edible oils except coconut oil. In order to harmonise the interests of domestic oilseeds growers, consumers and processors and to regulate large import of edible oils to the extent possible, the duty structure on edible oils is revised from time to time. The prices of edible oil have been rising during the last one year. For increased availability and softening the prices of edible oils in the domestic market, Government has taken various measures which include lowering of import crude and refined oils, restriction on export of edible oils, supply of subsidized oil through State Government/UTs, imposing stock limits on edible oils/oil seeds etc.

STATUS OF VEGETABLE OIL INDUSTRY

The Vegetable Oil Industry is administered through the following control/regulation orders: (i) Vegetable Oil Products (Regulation) Order, 1998; (ii) Edible Oils Packaging (Regulation) Order, 1998; and (iii) Solvent Extracted Oil, De-Oiled Meal and Edible Flour (Control) Order, 1967. These orders are statutory in nature and derive their powers from the Essential Commodities Act, 1955.

Vegetable Oil Industry was delicensed in July 1991. No industrial licence is required for activity relating to processing of vegetable oils subject to the condition of the Vocational policy angle. Crushing of oilseeds, namely, Groundnut, Mustard/Rapeseed and Sesame has been reserved for the small-scale industries, Agro-based industries and oilseeds growers co-operatives.

There are 258 Vanaspati units in the country with an annual capacity of 58 lakh MTs. The production of Vanaspati (including margarine and Bakery shortening) is around 11.50 lakh MTs and the capacity utilisation is around 19 per cent. There are 779 solvent extraction plants with an annual capacity of 419 lakh MTs (in terms of oil Bearing Material) in the country and the capacity utilization is around 31 per cent.

SUGAR

Sugar Production

Sugar production in India has been cyclic in nature. Due to good monsoon and increase in sugarcane area under cultivation, sugar production from sugarcane during the seasons 2006-07 and 2007-08 increased substantially to 282 lakh tonnes and 263 lakh tonnes respectively. However, sugar production declined to about 147 lakh tonnes in 2008-09 sugar season. Sugar production in 2009-10 is also likely to be about 160 lakh tonnes.

Installed sugar Mills

There were 615 installed sugar factories in the country as on 31 March 2008. The sector-wise break-up is as follows.

Sector	No. of sugar factories installed
(i) Public	62
(ii) Cooperatives	317
(iii) Private	236

Sugar policy

A. Partial control : Sugar and sugarcane are essential commodities under the Essential Commodities Act, 1955. Government has been following a policy of partial control and dual pricing for sugar. Under this policy a certain percentage of sugar produced by sugar factories is requisitioned by the Government as compulsory levy at a price fixed by Government in every sugar season. The levy sugar so requisitioned is distributed under the Public Distribution System (PDS). The non-levy (free-sale) sugar is allowed to be sold as per the quota/quantity released by the Government under the regulated release mechanism.

B. Phased Decontrol of the Sugar Industry: The Government has taken steps for decontrol of the sugar industry which include reduction in the compulsory levy obligation of the sugar factories. Accordingly the levy obligation now stands reduced gradually from 40 per cent (Prior to 1 January 2000) to 10 per cent from 1 March 2002.

SUGARCANE PRICING POLICY

The Central Government fixes the Statutory Minimum Price (SMP) of sugarcane for each sugar season. The SMP is fixed on the basis of the recommendations of the Commission for Agricultural Costs and Prices (CACP) and after consulting the State Governments and associations of sugar industry and cane growers. The Central Government had fixed the Statutory Minimum Price (SMP) of sugarcane for the sugar season 2008-09 at ₹ 81.18 per quintal linked to a basic recovery of 9 per cent subject to a premium of 90 Paise for every 0.1 per cent increase in the recovery above that level.

OBJECTIVES OF SUGAR DEVELOPMENT FUND

As provided under the Sugar Development Fund Rules, the Fund has to be utilized by the Government of India for the following :

- (a) Making loans for facilitating the rehabilitation and modernization of any sugar factory.
- (b) Making loans for the undertaking of any scheme for development of sugarcane in the area in which any sugar factory is situated.
- (c) Subsidy for the expenditure on internal transport and freight charges on export shipment of sugar.
- (d) Making loans for bagasse-based co-generation power projects.
- (e) Making loans for production of anhydrous alcohol or ethanol from alcohol/molasses.
- (f) Defraying expenditure for the purpose of building up and maintenance of buffer stock with a view to stabilizing price of sugar.
- (g) Defraying any other expenditure for the purpose of the Act.

FOOD PROCESSING

Role and Objectives

The Ministry of Food Processing Industries (MFPI) was set up in July 1988 to give an impetus to development of food processing sector in the country. The Ministry is concerned with formulation and implementation of the policies and plans for the food processing industries within the overall national priorities and objectives. The Ministry acts as a catalyst for bringing in greater investment into this sector, guiding and helping the industry, and creating a conducive environment for healthy growth of the food processing industry. Within these overall objectives, the Ministry aims at better utilization and value addition of agricultural produce, minimizing wastage at all stages in the food processing chain by development of infrastructure for storage, transportation and processing of agro-food produce, induction of modern technology into the food processing industries, encouraging RandD in food processing for product and process development, providing policy support, promotional initiatives and facilities to promote value added exports, create the critical infrastructure to fill the gaps in the supply chain from farm to consumer.

Major Policy initiatives

- Food processing has been identified as industry with employment potential.
- Most of the processed food items have been exempted from the purview of licensing under the Industries (Development and Regulation) Act, 1951, except items reserved for small-scale sector and alcoholic beverages.
- To ensure easy availability of credit, Government has included food processing industries in the list of priority sector for bank lending. NABARD has created a refinancing window with a corpus of ₹ 1000 crore, especially for agro-processing infrastructure and market development.
- ₹ 150 crore earmarked for (National Horticulture Mission) NHM for terminal markets.
- Food processing industries were included in the list of priority sector for bank lending in 1999.
- Automatic approval for foreign equity upto 100 per cent is available for most of the processed food items except alcohol and beer and those reserved for small scale sector subject to certain conditions.
- Excise duty on processed fruit and vegetables was brought down from 16 per cent to zero level in the Budget 2001-02.
- In the budget of 2004-05 income tax holiday and other concessions announced for certain categories of food processing industries.
- Under Income Tax Act, a deduction of 100 per cent of profit for five years and 25 per cent of profits for the next five years allowed in case of new agro processing industries set up to process, preserve and package fruits and vegetables.

Growth Rate

The average rate of growth of food processing sector during the first four years of the 10th Plan period was @13.25 per cent at current prices and @ 6.75 per cent at 1999-2000 prices.

THE SALIENT FEATURES OF THE 11TH PLAN SCHEMES

Scheme for Infrastructure Development

The scheme has got three components, namely Mega Food Parks, Integrated Cold Chain and Setting up/Modernisation of Abattoirs. Mega Food Park components aims to provide a mechanism to bring together farmers, processors and retailers and link agricultural production to the market so as to ensure maximisation of value addition, minimisation of wastages and improving farmers' income. The primary objective of the scheme is to facilitate establishment of an integrated value chain, with processing at the core and supported by requisite forward and backward linkages. The Cabinet in its meeting held on 11 September 2008 had approved establishment of 30 Mega Food Parks (MFP) under the infrastructure Development Scheme for Mega Food Park during 11th Plan Period out of which 10 Mega Food Parks have been approved for being taken up in the first phase. In-principle approval for these 10 Mega Food parks was accorded on 16 December 2008 out of which Detailed Project Reports (DRP) for five MFPs have been accepted. DRPs from remaining five are expected soon.

Vision 2015 on Food Processing Industries

A vision, strategy and action plan has also been finalized for giving boost to growth of food processing sector. The objective is to increase level of processing of perishable food from 6 per cent to 20 per cent, value addition from 20 per cent to 35 per cent and share in global food trade from 1.6 per cent to 3 per cent. The level of processing for fruits and vegetables is envisaged to increase from the present 2.2 per cent to 10 per cent and 15 per cent in 2010 and 2015 respectively. The Cabinet has approved the integrated strategy for promotion of agri business and vision, strategy and action plan for the Food Processing Sector, based on the recommendations made by the Group of Ministers (GOM).

Integrated Food Law

An Integrated Food Law, i.e. Food Safety and Standards Act, 2006 was notified on 24 August 2006. The Act enables in removing multiplicity of food laws and regulatory agencies and provide single window to food processing sector. Ministry of Health and Family Welfare has been designated as the nodal Ministry for administration and implementation of the Act.

National Institute of Food Technology Entrepreneurship and Management (NIFTEM)

The Ministry has set up a National Institute of Food technology Entrepreneurship and Management (NIFTEM) at Kundli (Haryana). The Institute will function as a knowledge centre in food processing. Certificate of Incorporation of NIFTEM as a section 25 Company under the Companies Act 1956 has been obtained.

SECTORAL OVERVIEW OF FOOD PROCESSING INDUSTRIES

Fruits and Vegetable Processing

Over the last few years, there has been a positive growth in ready-to-serve beverages, fruit juices and pulps, dehydrated and frozen fruits and vegetable products, tomato products, pickles, convenience vegspice pastes, processed mushrooms and curried vegetables. The domestic consumption of value added fruit and vegetable products is also low compared to the primary processed food in general and fresh fruits and

vegetables in particular, which is attributed to higher incidence of tax and duties including that on packaging material, lower capacity utilisation, non-adoption of cost effective technology, high cost of finance, infrastructural constraints, inadequate farmers-processors linkage leading to dependence upon intermediaries.

The smallness of units and their inability for market promotion are also reasons for inadequate expansion of the domestic market in order to give fresh impetus to processing of fruit and vegetables, Government in 2004-05 has allowed under I.T. Act, 100 per cent deduction of profit for first five years for new upcoming Fruits and Vegetables Processing Units. During 2008-09 (up to 31 March 2009), the Ministry has released financial assistance of ₹ 15.84 crores to 93 fruits and vegetables processing units (excluding North East States, Himachal Pradesh, Jammu and Kashmir and Uttarakhand) in the form of 1/2 instalment.

Meat Processing

In meat and meat processing sector, poultry meat is the fastest growing animal protein in India. The estimated production of meat was 6.5 million tonnes during 2007-08. Per capita consumption increased from 870 grams in 2000 and was expected to reach 2 kg during 2009. Buffalo meat production during 2008-09 is estimated at 2.8 million tonnes and out of this about 21 per cent is exported. Mutton and lamb is a relatively small segment, where demand is outstripping supply, which explains the high prices in domestic market. India exports more than 500,000 MT of meat of which major share is buffalo meat. Indian buffalo meat is witnessing strong demand in international markets due to its lean character and its near organic nature. India is the sixth largest exporter of bovine meat in the world. Indian buffalo meat exports have the potential to grow significantly. Due to emerging health threats of the diseases communicable to humans through meat, the meat consumers are more vigilant towards the wholesomeness of the meat and demanding meat and poultry products processed in clean and sanitary environment.

In metros and urban areas there are upcoming demands for "convenience items" such as semi-cooked, ready-to-eat, ready-to-cook meat food products. To develop necessary infrastructure for processing of meat and meat food products for domestic market as well as for export market, Ministry of Food Processing Industries is providing financial assistance by way of grant-in-aid. During the Year 2008-09 MFPI assisted 6 projects for processing of Meat and Meat Food Products amounting to ₹ 180.18 lakh.

Dairy Processing

India is number one milk producing country in the world, maintaining the top position since 1988, thanks to successful implementation of the Operation Food programmes. World milk production is estimated at 693 million tonnes during 2007-08 and Indian milk production stands at 105 million tonnes. Despite a higher growth rate, the per capita availability of milk in India (252 grams per day) is lower than the world average (265 grams per day). Buffalo milk is now estimated to account for 57 per cent of the total milk production in India.

India has a unique pattern of production, processing and marketing/consumption of milk, which is not comparable with any large milk producing country. Approximately 70 million rural households (primarily, small and marginal farmers and landless labourers) in the country are engaged in milk production. Over 11 million farmers are organised into about 0.1 million village Dairy Cooperative Societies (DCS) (about 110 farmers per DCS). The cumulative milk handled by DCS across the

country is about 18 million kg of milk per day. These cooperatives form part of a national milk grid, which links the milk producers throughout India with consumers in more than 700 towns and cities bridging the gaps on account of seasonal and regional variations in the availability of milk. About 35 per cent of milk produced in India is processed. The organised sector (large scale dairy plants) processes about 13 million tonnes annually, while the unorganized sector (halwais and vendors) processes about 22 million tonnes per annum. In the organized sector, there are 789 dairy plants in the cooperative, Private and Government sectors registered with the Government of India and the state Governments.

Export of dairy products. concentrated dairy products such as skimmed milk continues to be the largest item of export, which together accounts for nearly 78 per cent of net milk and milk product exports during 2007-08. The Ministry of Food Processing Industries is promoting organised dairy processing sector to meet upcoming demands of processed dairy products and helping to identify various areas of research for future product development and quality improvement by way of providing financial assistance to the dairy processing units. 34 units have been sanctioned financial assistance (₹ 758 lakh) under the Plan Scheme of the Ministry during the year 2008-09.

Fish Processing

India is gifted with a long coastline of 8120 kms., 2 million Sq. Km of Exclusive Economic Zone, and 1.2 million hectares of brackish water bodies having a vast potential for development of fisheries. The fisheries sector contributes 1.4 per cent to the agricultural GDP, which is very low when compared to the potential of the country. Since independence, the fishery sector has grown from 0.75 million tonnes in 1950 to the present production of 7.0 million tonnes. Nearly 10 million people, living in 4,000 coastal villages and more number of interior villages, depend on fisheries to earn their livelihood. Post harvest, pre-processing, processing and marketing sectors are very much export oriented and the domestic market awaits a major thrust. The target is to increase the fish production from the current level of 70 lakh MTs to about 95 lakh MTs by 2010.

Grain Processing

India received sufficient rainfall during the year 2007-08 and also relatively a far better oilseed crop while some oilseed growing countries faced drought/decrease in oilseed crop during the year. This gave the Indian farmers and vegetable oil industry an opportunity to reap very good overall profits from the high prices of vegetable oilseed products in the international market. The high prices of vegetable oilseeds products have encouraged the farmers to retain the areas under oilseed cultivation during the current year.

During the financial year 2008-09 up to 31 March 2009), Ministry has sanctioned grant-in-aid of ₹ 20.51 crore to 118 units for Setting up/Modernisation/Expansion of edible oil milling industries, under the decentralized pattern of the Scheme.

Consumer Food Industry

Consumer food industry includes pasta, breads, cakes, pastries, rusks, buns, rolls, noodles, corn flakes, rice flakes, ready-to-eat and ready-to-cook products, biscuits etc. Bread and biscuits constitute the largest segment of consumer foods. India's biscuits industry is the largest among all the food industries and has a turnover of around ₹

3000 crores. India is known to be the second largest manufacturer of biscuits, the first being USA. It is classified under two sectors: organised and unorganised. Bread and biscuits are the major part of the bakery industry and cover around 80 percent of the total bakery products in India. Biscuit stands at a higher value and production level than bread. This belongs to the unorganised sector of the bakery industry and covers over 70 per cent of the total production. India's biscuits industry came into limelight and started gaining a sound status in the bakery industry in the later part of 20th century when the urbanised society called for ready made food products at a tenable cost. Biscuits were assumed as sick-man's diet in earlier days. Now, it has become one of the most loved fast food products for every age group. Biscuits are easy to carry, tasty to eat, cholesterol free and reasonable at cost. States that have the larger intake of biscuits are Maharashtra, West Bengal, Andhra Pradesh, Karnataka, and Uttar Pradesh. Maharashtra, and West Bengal, the most industrially developed states, hold the maximum amount of consumption of biscuits. Even the rural sector consumes around 55 per cent of the biscuits in the bakery products.

The Ministry of Food Processing Industries provides financial assistance to consumer industries sector under the scheme of technology upgradation/modernisation/expansion. The scheme has been decentralised w.e.f. 1 April 2007. During the year 2008-09 (upto 31 March 2009), financial assistance to 112 food-processing units relating to consumer industries amounting to ₹ 18.37 crore has been provided.

Alcoholic Beverages

As per the Allocation of Business Rules, the Ministry of Food Processing is responsible for alcoholic drinks from non-molasses base and beer including non-alcoholic beer. Financial support to Beverage Sector - Ministry provides financial support for setting up/modernisation/expansion of wine and beer units @ 25 per cent of the total cost of plant and machinery and technical civil work subject to a limit of ₹ 50 lakh for general areas and 33.33 per cent of plant and machinery and technical civil work subject to a limit of ₹ 75 lakh for difficult areas.

Aerated Soft Drinks

Soft drinks constitute the third largest packaged foods regularly consumed after packed tea and packed biscuits. The aerated soft drinks industry in India comprises over 100 plants across all states. It provides direct and indirect industry related employment to over 125,000 employees. It has attracted one of the highest foreign direct investments in the country. It has strong forward and backward linkages with glass, plastic, refrigeration, sugar and transportation industry. The installed capacity of sweetened/aerated water as on 1 January 2006 is reported to be 29.60 lakh tonnes per annum.

Packaged Drinking Water

There are 218 companies, which have been granted licence for manufacturing packaged drinking water and packaged natural mineral water. There has been a spurt in growth in the last 3-4 years, which can largely be attributed to a range of various packaged sizes to suit the consumers. 80 per cent of the packaged water sale comes from the bulk containers (5 litres and above).

Price Management

The prices of essential commodities were closely monitored and various measures were taken that led to augmenting supplies and monitoring prices of essential commodities during the year 2009-10. The prices of some essential commodities such as pulses, rice, sugar, potato and onion have shown an increase over the previous year. Several factors such as shortfall in domestic supplies relative to demand, increase in MSP and bonus, hardening of international prices, changes in consumption pattern and adverse weather were responsible for rise in the prices of these commodities. Seasonal factors and loss of crop due to flood contributed to increase in prices. Changes in consumption pattern and adverse weather were responsible for rise in the period of onion and potato. The Price Monitoring Cell (PMC) monitors the price of 17 essential commodities, viz. rice, wheat, gram dal, arhar dal, moong dal, urad dal, masoor dal, tea, sugar, salt, potato, onion, vanaspati, groundnut oil, mustard oil, milk and atta. The retail prices on daily basis and wholesale prices on weekly basis are collected from 27 centres and 37 centres respectively across the country. The Wholesale Price Index (WPI) based monthly rate of inflation for 'all commodities' stood at a higher rate of 7.29 per cent in December 2009, as compared to 6.16 per cent in December, 2008.

COMMODITY-WISE TREND IN AVAILABILITY AND PRICE OF ESSENTIAL COMMODITIES

The availability of essential commodities other than sugar and some pulses remained comfortable. The increase in the prices of rice, sugar and pulses has been due to mismatch in domestic demand and supply, rising cost of inputs and hardening of international prices. Commodity-wise position on prices, production and availability of essential commodities are briefly analyzed in the following paragraphs.

Rice

During the current financial year, the retail prices of rice have shown an upward trend at most of the reporting centres. The retail prices of rice across centres were in the range of ₹ 13.5 to ₹ 36 per kg as on 31 December 2009 as compared to ₹ 12-₹ 22 per Kg as on 31 December 2008.

During 2009-10, the production of rice in Kharif season, as per the second Advance Estimates of Production of the Department of Agriculture and Cooperation, was estimated at 72.87 million tonnes, which is lower than the second advance estimate of last year of 85.45 million tonnes. Production of rice during 2008-09 was 99.18 million tonnes.

The stocks of rice in the Central Pool available with Food Corporation of India and State agencies as on 13 January 2010 was 24.21 million tonnes as compared to 17.58 million tonnes as on 1 January 2009. The procurement of rice as on 19 January 2010 was 18.25 million tonnes which is lower by 0.16 million tonnes as compared to the procurement in the corresponding period during 2008-09.

Wheat

The retail prices of wheat across centres were in the range of ₹ 13 to ₹ 25 per Kg as on 31 December 2009 as compared to ₹ 10.5 to ₹ 20 per Kg as on 31 December 2008.

The production of wheat during the year 2009-10 is targeted at 80.28 million tonnes (Second Advance Estimates of Department of Agriculture and Cooperation) as against production of 80.68 million tonnes during the year 2008-09. The opening

stock of wheat in the Central Pool as on 13 January 2010 was 23.07 million tonnes of wheat (against buffer norm of 8.2 million tonne as on 13 January 2010). Procurement of wheat during marketing season 2009-10 (April-March) was 25.38 million tonnes as compared to 22.69 million tonnes in 2008-09.

Pulses

The retail prices of pulses have shown a generally increasing trend at the 27 centres during 2009-10 (April-December). Prices of gram dal were in the range ₹ 30-₹ 46 per Kg as on 31 December, 2009 as compared to ₹ 27-₹ 45 per kg as on 31 December 2008, as compared to ₹ 47-₹ 62 per kg as on 31 December 2008 prices of masoor dal were in the range of ₹ 51-₹ 74 per Kg as on 31 December 2009 prices of tur dal were in the range ₹ 48-₹ 90 per Kg as on 31 December 2009 as compared to ₹ 34-₹ 52 per Kg as on 31 December 2008. Similarly, the retail prices of urad dal were in the range ₹ 55-₹ 82 per Kg. as on 31 December 2009 as compared to ₹ 34-₹ 50 per Kg as on 31 December 2008. The prices of moong dal were in the range ₹ 52-₹ 90 per Kg as on 31 December 2009 as compared to ₹ 35-₹ 52 per Kg as on 31 December 2008.

Production of pulses have been stagnant (at around 13-14 million tonnes) for the past one decade. In 2009-10 a higher pulses production is estimated vis-a-vis last year, at 14.74 million tonnes as against 14.25 million tonnes as per the Second Advance estimates for 2009-10.

Demand for pulses has been increasing steadily mainly due to increase in population and enhanced protein requirements in food. The gap between demand and supply is met through imports. Import of pulses during 2008-09 was 24.36 lakh tonnes as compared to 28.35 lakh tonnes in 2007-08. The import of pulses during 2009-10 (April-October) was 15.9 lakh tonnes as against 13.2 lakh tonnes in the same period of last year.

Sugar

Retail prices of sugar have shown upward trend during the current financial year. Prices of sugar across centers were in the range of ₹ 25 per kg to ₹ 40.00 per kg as on 31 December 2009 as compared to prices in the range of ₹ 18.00 per kg to ₹ 24.00 per kg as on 31 December 2008.

Prices of sugar have increased on account of decline in area and productivity of sugarcane; shift in acreage from sugarcane to other foodgrain crops such as wheat, owing to higher MSP of the latter; drop in sugar recovery by half percentage point to 9 per cent; and due to the diversion of cane towards jaggery production this year as cane growers were given higher prices by Gur manufacturers.

The final Estimate of sugarcane production for 2008-09 is 285.03 million tonnes. The Second Advance Estimates released by Ministry of Agriculture for 2009-10 puts sugarcane production at 251.27 million tonnes.

Edible Oils

Prices of edible oils have generally been stable during the current year. The Second Advance Estimates for the year 2009-10 released by Ministry of Agriculture put oilseed production higher at 26.32 million tonnes than the second estimates of last year at 25.96 million tonnes.

During the current year, the edible oil prices have shown a steady to declining trend as compared to last year across centres. Retail prices of groundnut oil were

quoted in the range of ₹ 68.00-112.00 per kg as on 31 December 2009 as compared to prices in the range of ₹ 76.00 per kg to ₹ 110.00 per kg as on 31 December 2008. Retail prices of Mustard Oil were quoted in the range of ₹ 55.00-105.00 per kg as on 31 December 2009 as compared to prices in the range of ₹ 65.00 per kg to ₹ 105.00 per kg as on 31 December 2008. Retail prices of Vanaspati were quoted in the range of ₹ 40.00-68.00 per kg as on 31 December 2009 as compared to prices in the range of ₹ 42.00 per kg to ₹ 80.00 per kg as on 31 December 2008.

The gap in the demand and supply of edible oil to the extent of around 40 per cent is met by imports of mainly soyabean and palm oils. During the year 2008-09 (Oil year November-October), the total import of edible oils is reported at 81.83 lakh tonnes, as compared to 56.08 lakh tonnes during 2007-08.

VEGETABLES

Vegetable prices fluctuate depending on the availability and seasonal factors. Government has kept a close watch on the prices and availability of vegetables especially onion and potato.

Onion

The total production of onion in the country for the current year is estimated around 77.30 lakh MT from the area of 5.64 lakh ha.

During the months of April to December 2009, prices have shown upward trend. Retail prices of onion across centres were in the range of ₹ 10.00-37.00 per kg as on 31 December 2009 as compared to ₹ 6.00-25.00 per kg as on 31 December 2008.

Potato

Potato area and production during 2008-09 was estimated around 18.10 lakh ha and 311.27 lakh MT respectively as compared to previous years area of 17.19 lakh ha and production of 304.42 lakh MT. During 2008-09 potato production was less in the states of Bihar, West Bengal because of severe attack of late blight disease and in M.P. due to less water availability. However, according to trade sources, Potato production in 2008-09 was less than that of 2007-08.

During kharif, area under potato declined because of less and delayed rains in Maharashtra and Karnataka which started from October. The harvesting of kharif potato in Maharashtra, H.P., Karnataka, Uttarakhand and Tamil Nadu is in progress. Production of kharif potato is expected to decline by 10 per cent. However, as the share of kharif potato production to total production is only around 5-8 per cent, this is not expected to have major impact on total production figures.

The sowing of rabi crops has been completed in all the major potato growing states. Area under rabi is expected to increase in Uttar Pradesh, West Bengal, Punjab, Haryana, Rajasthan, Madhya Pradesh and Andhra Pradesh, while it is expected to decline in Gujarat and Maharashtra due to less rain. Production of rabi potato is expected to increase by 6 per cent and hence overall potato production is estimated to be higher than last year at 327.34 lakh tonnes.

Retail prices of potato across centres were in the range of ₹ 10.00-26.00 per kg as on 31 December 2009 as compared to ₹ 4.00-16.00 per kg as on 31 December 2008.

Tea

The retail prices of tea showed an upward trend as compared to last year. Retail prices of tea across centres were in the range of ₹ 110.00-340.00 per kg as on 31 December 2009 as compared to ₹ 85.00-270.00 per kg as on 31 December 2008.

Exports of tea 2009-10 (April-September) were 86.15 million kg as against 109.12 million kg in the corresponding period a year ago.

Milk

Retail prices of milk across centres were in the range of ₹ 14.00-28.00 per kg centres as on 31 December 2009 as compared to ₹ 14.00-31.00 per kg as on 31 December 2008.

Salt

Retail prices of salt across centres were in the range of ₹ 5.00-12.00 per kg across centres as on 31 December 2009 as compared to ₹ 5.00-11.00 per kg as on 31 December 2008.

CMs' CONFERENCE ON PRICES OF ESSENTIAL COMMODITIES

A conference of Chief Ministers was held on 6 February 2010 to discuss the issues relating to prices of essential commodities. The conference was attended by the Prime Minister, Finance Minister, Minister for Agriculture, Consumer Affairs, Food and Public Distribution, members of the Cabinet Committee on Prices, Chief Ministers/ Food Ministers from several states as well as senior officers from the Government of India and State Governments.

The conference underscored the need to understand better the nature of the problems and the respective roles to be played by the Government of India and the State Governments in containing the price increase. It was recognised that the prime concern of the Governments was the insulation of the poor and the vulnerable from adverse price movements. The State Governments' role in ensuring that food articles imported or distributed through the Public Distribution System to quickly reach the intended beneficiaries through better targeting and strengthening of PDS, better procurement, better offtake of the commodities was highlighted.

The deliberations of the conference also focused on short term measures and long term strategies to ensure food security by increasing production and productivity of foodgrains so as to meet the demand. It was felt that there is a need to implement agricultural market reforms so as to improve marketing opportunities for farmers and minimize the cost of intermediation in the supply chain by using co-operatives and other institutions to reduce the gap between wholesale and retail prices and to stabilize prices.

WEIGHTS AND MEASURES

The Standards of Weights and Measures Act, 1976 and the Standards of Weights and Measures (Enforcement) Act, 1985 provide for the establishment of Standards of Weights and Measures and enforcement thereof respectively. Through these Acts, Consumer protection in respect of weights and measures is ensured so far as weights or measures used in trade and commerce, industrial production or for protection of human health and safety are concerned. The department lays down specification to regulate weighing and measuring instruments based on the recommendations made by the International Organization of Legal Metrology (OIML). To make Weights and Measures laws more transparent and simple, a comprehensive Act namely "The Legal Metrology Act, 2009" (1 of 2010) has been enacted by Parliament.

The sale of commodities in "prepacked form" is regulated by the Standards of Weights and Measure (packaged commodities) Rules 1977. The Rules require mandatory declaration of certain basic information on packages. Imported packages

are also regulated by the said Rules. The Department has constituted a standing committee to harmonize the labelling requirement on packages required under different laws. The objective of the Committee is to remove any contradiction in labelling requirements on packages under different laws.

The Department has organized an all India conference of weights and measures on 24 February 2010 at New Delhi with all States and UTs. The conference was inaugurated by the Minister of State for Agriculture, Consumer Affairs, Food and Public Distribution.

The Indian Institute of Legal Metrology, Ranchi, under the administrative control of this Ministry, imparts training in legal metrology and allied subjects. Apart from the enforcement officials of States, nominees from African, Asian and Latin American countries also attend the programmes run by the Institute. To re-orient the activities of the Institute so as to fulfil its mandate more effectively and to make it a centre of excellence, a study has been entrusted to Indian Institute of Management, Kolkata.

NATIONAL TEST HOUSE

The National Test House (NTH) with its headquarters at Kolkata is a Government laboratory of national importance in the field of testing and evaluation of material and products of all engineering branches except Food, Pharmaceuticals and Arms and Ammunitions. It is also providing calibration services and actively assists BIS in the formulation of National Standards since independence. The objective of NTH is to improve Indian Products to meet the requirements of National/International Standards for their acceptability in the global market. The NTH with its headquarters in Kolkata functions through six regional laboratories located in Kolkata, Mumbai, Chennai, Ghaziabad, Jaipur and Guwahati.

16 Health and Family Welfare

KEEPING in view the federal nature of the Constitution, areas of operation have been divided between Union Government and State Governments. Seventh Schedule of Constitution describes three exhaustive lists of items, namely, Union list, State list and Concurrent list. Though some items like Public Health, hospitals, sanitation, etc. fall in the State list, the items having wider ramifications at the national level like population control and family welfare, medical education, prevention of food adulteration, quality control in manufacture of drugs etc. have been included in the Concurrent list.

The Ministry of Health and Family Welfare is instrumental and responsible for implementation of various programmes on a national scale in the areas of Health and Family Welfare, prevention and control of major communicable diseases and promotion of traditional and indigenous systems of medicines. Apart from these, the Ministry also assists States in preventing and controlling the spread of seasonal disease outbreaks and epidemics through technical assistance. Ministry of Health and Family Welfare incurs expenditure either directly under Central Schemes or by way of grants-in-aid to the autonomous/statutory bodies, etc. and NGOs. In addition to the 100 per cent centrally sponsored family welfare programme, the Ministry is implementing several World Bank assisted programmes for control of AIDS, Malaria, Leprosy, Tuberculosis and Blindness in designated areas. Besides, State Health Systems Development Projects with World Bank assistance are under implementation in various states. The projects are implemented by the respective State Governments, and the Department of Health and Family Welfare only facilitates the State in availing of external assistance. All these schemes aim at fulfilling the national commitment to improve access to Primary Health Care facilities keeping in view the needs of rural areas where the incidence of disease is high. The Ministry of Health and Family Welfare comprises the following departments :

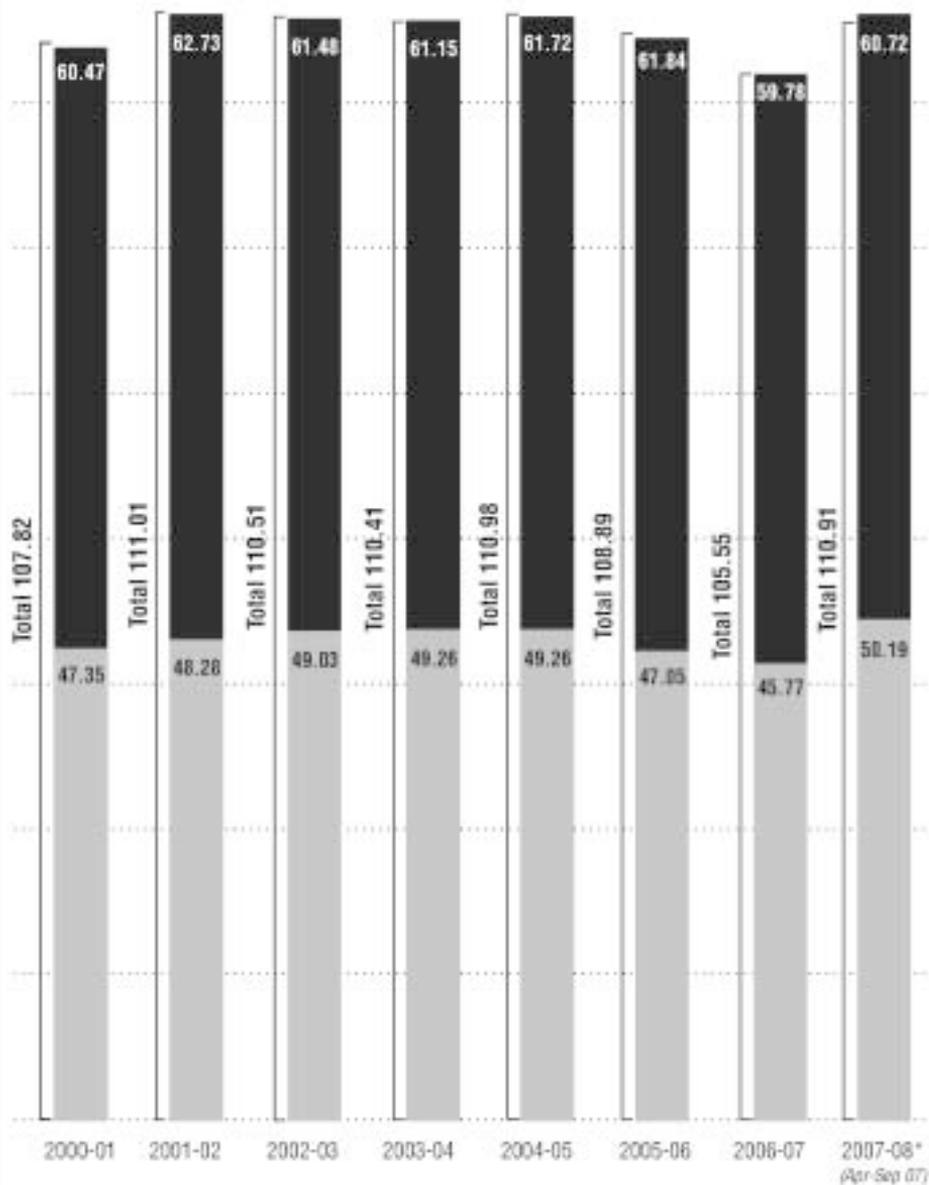
- Department of Health and Family Welfare
- Department of AYUSH
- Department of Health Research
- Department of AIDS Control

Directorate General of Health Services (Dte. GHS) is an attached office of the Department of Health and Family Welfare and has subordinate offices spread all over the country. The DGHS renders technical advice on all medical and public health matters and is involved in the implementation of various health schemes.

The **National Health Policy 2002** aims at achieving an acceptable standard of health for the general population of the country. Keeping in line with this broad objective, the Eleventh Five Year Plan had set upon itself the goal of achieving good health for the people, especially the poor and the underprivileged. To achieve the objective, a comprehensive approach was advocated, which included improvements in individual health care, public health, sanitation, clean drinking water, access to food and knowledge of hygiene and feeding practices. Importance was accorded to reducing disparities in health across regions and communities by ensuring access to affordable health. Special attention was given to the health of marginal groups like

ACCEPTORS OF FAMILY WELFARE METHODS

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adolescent girls, women, children, the older persons, disabled and tribal groups, with due recognition to gender issues, as the crosscutting theme across all schemes. An assessment of the performance of the country's health related indicators depicts that significant gains have been made in them e.g. life expectancy at birth, child and maternal mortality, among others.

The country has a well structured 3-tier public health infrastructure, comprising Community Health Centres, Primary Health Centres and Sub-Centres spread across rural and semi-urban areas and tertiary medical care providing multi-Speciality hospitals and medical colleges located almost exclusively in the urban areas. Improvements in health indicators can be attributed, in part, to this network of health infrastructure. However, the progress has been quite uneven across the regions (large scale inter-State variations), gender (male-female differences) as well as across space (with significant rural-urban differences). Conscious and vigorous efforts continued to be made during the current year to step up funding of the health sector as part of the endeavour to ensure that allocations for health in the public domain reach 3 per cent of the GDP by 2012.

The major thrust in this direction in the National Rural Health Mission (NRHM) which aims at major qualitative improvements in standards of public health and health care in the rural areas through strengthening of institutions, community participation, decentralization and innovative methods of reaching all habitations. While the Mission was formally launched in 2005 and has taken a while to effectively go on stream, early indications reflect its positive impact. Simultaneously, provision of tertiary health care and increasing human resources to ensure availability of larger number of health care providers have engaged the attention of the Government. Considerable upgradation of facilities and infrastructure is now under way in 13 medical colleges in the States to provide super speciality treatment under the Pradhan Mantri Swasthya Suraksha Yojana (PMSSY). Under the scheme work has commenced on construction of six institutions on the pattern of the All India Institute of Medical Sciences. Under the second phase of the PMSSY it is proposed to establish two more AIMS like institutions—one each in Uttar Pradesh and West Bengal—and another six medical colleges have been taken up for upgradation of facilities.

A scheme to provide resources to the State Government to increase capacity of Post Graduate Medical Courses in specialities closely linked to health care needs of the common people is also being finalized. Under the National Mental Health Programme, 11 State Mental Hospitals and Institutes have been identified for being developed into Centres of Excellence to upgrade the facilities and provide for creation of more manpower resources in Mental Health. Schemes to augment Nursing Education and Development of paramedical disciplines are also at an advanced stage of approval. A major initiative is being finalized to have in place a system of tracking pregnant women and children to ensure timely antenatal, and post-natal care, safe delivery and universal immunization of children. Experimental initiatives taken in this regard in a few states are now proposed to be 'upscaled' on a nation wide basis. Once the system is put in place it will help in substantial fall in infant and Maternal Mortality Rates.

For better surveillance and epidemiological monitoring of infectious diseases, it is proposed to upgrade the National Institute of Communicable Diseases to a National Centre for Disease Control on the lines of CDC in the United States. The Centre will result in ensuring more focused and sustained attention to monitor the spread and intensity of endemic and emerging diseases and to develop standard

operating procedures to combat their baneful effects. The country had to face the crisis of H1N1 influenza popularly known as 'Swine Flu'. The emergency was tackled on a war footing with close coordination between the Centre and the States. Thanks to the timely and effective response consisting of diagnostic and therapeutic interventions and campaigns for mass awareness the mortality and morbidity from this disease was kept at a very low level for a country of our size and population. Efforts are on to enable our pharmaceutical companies to indigenously produce H1N1 vaccine.

With improvement in life expectancy and changing lifestyles, the burden of non-communicable diseases is on the rise. With the benefit of a 'pilot' project it is proposed to introduce in the ensuing financial year a scheme relating to diabetes, cardiovascular diseases and stroke. The scheme seeks to screen populations for early detection and make provision for the management of these chronic diseases at the level of Community Health Centres etc. by providing special training to the Medical officers. An outlay of ₹ 100 crore is proposed in the first year of its operation. In line with the objectives enunciated, there has been a steady increase in the allocations made for the Health Sector.

NATIONAL RURAL HEALTH MISSION (NRHM)

The National Rural Health Mission was launched by the Prime Minister on 12 April 2005, to provide accessible, affordable and accountable quality health services to the poorest households in the remotest rural regions. The detailed Framework for implementation that facilitated a large range of interventions under NRHM was approved by the Union Cabinet in July 2006. Under the NRHM, the difficult areas with unsatisfactory health indicators were classified as special focus States to ensure greatest attention where needed. The thrust of the Mission is on establishing a fully functional, community owned, decentralized health delivery system with inter sectoral convergence at all levels, to ensure simultaneous action on a wide range of determinants of health like water, sanitation, education, nutrition, social and gender equality. Institutional integration within the fragmented health sector was expected to provide a focus on outcomes, measured against Indian Public Health Standards for all health facilities. From narrowly defined schemes, the NRHM is shifting the focus to a functional health system at all levels, from the village to the district.

The NRHM is about increasing public expenditure on health care from the current 0.9 per cent of the GDP to 2 to 3 per cent of the GDP. The corollaries of such a policy directive are not only have increased central government budgetary outlay for health, but states also make a matching increase of at least 10 per cent of the budget annually including a 15 per cent contribution into the NRHM plan, and that the center-state financing ratio shifts from the current 80:20 to at least a 60:40 ratio in this plan period. Another important corollary is that the state health sector develops capacities to absorb such fund flows. There are currently many constraints, especially in the High Focus states to absorb these funds and the poorest performing states which require the largest infusion of resources have wide range of problems to spend the funds already with them. In view of the above a process of reforming and strengthening the state health systems needs to go hand in hand with the increase of fund flows.

The NRHM is about health sector reform. The architectural correction envisaged

under NRHM is organized around five pillars, each of which is made up of a number of overlapping core strategies.

a) Increasing Participation and Ownership by the Community : This is sought to be achieved through an increased role for PRIs, the ASHA programme, the village health and sanitation committee, increased public participation in hospital development committees, district health societies in the district and village health planning efforts and by a special community monitoring initiative and also through a greater space for NGO participation.

b) Improved Management Capacity : The core of this is professionalising management by building up management and public health skills in the existing workforce, supplemented by inculcation of skilled management personnel into the system.

c) Flexible Financing : The central strategy of this pillar is the provision of united funds to every village health and sanitation committee, to the sub-center, to the PHC, to the CHC including district hospital.

d) Innovations in human resources development for the health sector : The central challenge of the NRHM is to find definitive answers to the persistent questions about ensuring adequate recruitment for the public health system and adequate functionality of those recruited. Contractual appointment route to immediately fill gaps as well as ensure local residency, incentive and innovation to find staff to work in hitherto underserved areas and the use of multiskilled and multi-tasking options are examples of other innovations that seek to find new solutions to old problems.

e) Setting of standards and norms with monitoring : The prescription of the IPHS (i) More than 7.49 lakh Accredited Social Health Activists (ASHAs) are connecting households to health facilities. The presence of community volunteers on this unprecedented scale has resulted in people's growing pressure on utilization of services from the public sector health system. States across the country are reporting significantly higher utilization of outpatient services, diagnostic facilities, institutional deliveries and inpatient care. Large scale demand-wise financing under the *Janani* norms marks one of the most important core strategies of the mission. This has been followed up by a facility survey to identify gaps and funding is directed to close the gaps so identified.

The National Rural Health Mission represents a major departure from the past, in that central government health financing is now directed to the development of state health systems rather than being confined to a select number of national health programmes. NRHM is therefore an effort at building a partnership with states to ensure meaningful reforms with more resources. Ultimately, success of NRHM will depend on ability of the Mission interventions to galvanize State Governments into action, pursuing innovations and flexibility in all spheres of public health action.

Physical Progress

ASHAs

Selection of 7,49,440 ASHAs has been done in the entire country, out of which 7,05,475 up to 1st Module and 5,65,561 up to 4th Module, ASHAs were given orientation training and positioned in villages. 5.20 lakh ASHAs have been provided with drug kit as well.

Infrastructure

- 1.46 lakh Subcentres in the country are provided with untied funds of Rs. 10,000 each. 4,42,817 Sub Centres and VHSC have operational joint accounts of ANMs

and Pradhans for utilization of annual untied funds. 40,426 Sub Centres are functional with second ANM.

- Out of 4276 Community Health Centres, 3029 CHCs have been selected for upgradation to IPHS and facility survey has been completed in 2880 CHCs (includes other also).
- 29,223 Rogi Kalyan Samities have been registered at different level of facilities.
- 9144 Sub Centres for new construction and 8997 for renovation taken up under NRHM.
- 1009 Primary Health Centres taken up for new construction and 2081 for renovation under NRHM.
- 435 Community Health Centres for construction and 1255 for renovation taken up under NRHM.

Manpower

- 11,084 Doctors and Specialists, 46,690 ANMs, 26,793 Staff Nurses, 14,490 Paramedics have been appointed on contract by States to fill in critical gaps.

Management Support

- 1,691 professionals (CA/MBA/MCA) have been appointed in the State and 639 District level Program Management Units (PMU) and 3,760 Block level Program Management Units (BPMU).

Mobile Medical Units

- 1031 Mobile Medical Units operational under NRHM in States.
- Emergency Transport System operational in 12 States with the assistance of 2919 Ambulances.
- Another 1674 Ambulances provided to States for working at PHC, CHC, Sub District and District Hospital.

Immunization

- Intense monitoring of Polio Progress-Services of ASHA useful.
- JE vaccination completed in 11 districts in 4 states - 93 lakh children immunized during 2006-07. JE vaccination has been implemented in 26 districts of 10 states in 2007. The 11 districts of 4 states where JE vaccination was carried out in 2006 have introduced JE vaccine in Routine Immunization to vaccinate new cohort between 1-2 years of age with booster dose of DPT.
- House tracking of polio cases and intense monitoring.
- Neonatal Tetanus declared eliminated from 7 states in the country.
- Full immunization coverage evaluated at 43.5 per cent at the national level (NFHS-III).
- Accelerated Immunization Programme taken up for EAG and NE States.

Institutional Delivery

- Janani Suraksha Yojana (JSY) is operationalised in all the States. 7.04 lakh women were benefited in the year 2005-06, 29.31 lakh in 2006-07, 71.19 lakh in 2007-08, 86.22 lakh in 2008-09 and 78.41 lakh in the year 2009-2010.

Neo Natal Care

- Integrated Management of Neonatal and Childhood illnesses (IMNCI) started in 310 districts this year.
- With the help of Neonatology Forum over 2,42,079 health care personal trained in Newborn care in the country.
- Module for Home based new born care developed in consultation with Dr. Abay Bhang.

Convergence

- Over 35 lakh in 2006-07, 49 lakh in 2007-08, 58 lakh in 2008-09, and 44 lakh in year 2009-2010. Monthly Health and Nutrition Days being organized at the village in various States.
- The States have constituted 4,51,473 Village Health and Sanitation Committees. They are being involved in dealing with disease outbreak.
- Convergence with ICDS/Drinking Water/Sanitation/NACO/PRIs ground work completed.
- School health programmes have been initiated in over 26 States.

Health Action Plans

- State PIPs have been received from 31 states during 2006-07, 35 in the year 2007-08, 35 in the year 2008-09 and 35 State PIPs received in the year 2009-10. Project Implementation Plan (PIPs) of the States under NRHM are being appraised and approved for the year 2010-11.
- The first cut of integrated District Health Action Plans (DHAP) has been finalized for 617 districts.

Mainstreaming of AYUSH

- Mainstreaming of AYUSH has been taken up in the States. 10,872 AYUSH facilities are available at District and below district level health institutions. AYUSH persons are part of State Health Mission/Society/RKS/ASHA training as members.

Trainings

- Trainings in critical areas including Anaesthesia, Skilled Birth Attendance (SBA) taken up for MOs/ANMs. Integrated Skill Development Training for ANMs/LMV/MOs, Training on Emergency Obstetrics care and No Scalpel Vasectomy (NSV) for MOs, Professional Development Programme for CMOs is on full swing.
- ANM Schools being upgraded in all States.
- New nursing schools taken up.

Mother NGOs

- 300 Mother NGOs appointed for 412 districts till date are fully involved in ASHA training and other activities.

Health Resource Centres

- National Health Systems Resource Centre (NHSRC) set up at the National level.
- Regional Resource Centre set up for NE.
- State Resource Centre being set up by States.

Monitoring and Evaluation

- Independent evaluation of ASHAs/JSY by UNFPA/UNICEF/GTZ in 8 States.
- Immunization coverage evaluated by UNICEF.
- Independent monitoring by identified institutions like Institute of Public Auditors of India.
- Phase 1 of community monitoring in 9 States namely Rajasthan, Orissa, Maharashtra, Madhya Pradesh, Tamil Nadu, Chhattisgarh, Jharkhand, Karnataka and Assam has been completed.
- Concurrent evaluation by several independent agencies is in progress.
- District wise Annual Health Survey for high focus states are in pipeline.

National Vector Borne Disease Control Programme (NVBDCP)

The National Vector Borne Disease Control Programme is a comprehensive programme for prevention and control of vector borne diseases namely Malaria, Filariasis, Kala-azar, Japanese Encephalitis (JE), Dengue and Chikungunya which is covered under the overall umbrella of NRHM.

Malaria

Malaria is an acute parasitic illness caused by *Plasmodium falciparum* or *Plasmodium vivax* in India. Nine major species of anopheline mosquitoes transmit malaria in India. The main clinical presentation is with fever with chills, however, nausea and headache can also occur. The diagnosis is confirmed by microscopic examination of a blood smear and Rapid Diagnostic Tests for Pf cases. Majority of the patients recover from the acute episode within a week. Malaria continues to pose a major public health threat in different parts of the country, particularly due to *Plasmodium falciparum* as it is sometimes prone to complications and death, if not treated early.

There are 9 species of Malaria vectors in India, out of which the major vector mosquito for rural malaria viz. *Anopheles culicifacies*, is distributed all over the country and breeds in clean ground water collections. Other important Anopheline species namely *An. minimus* and *An. fluviatilis* is the breed in running channels, streams with clean water. Some of the vector species also breed in forest areas, mangroves, lagoons, etc., even in those with organic pollutants.

Filariasis

Filariasis is transmitted by mosquito species i.e. *Culex quinquefasciatus* and *Mansonia annulifera*/*M. uniformis*. The vector mosquitoes breed in polluted water in drains, crosspits etc. in areas with inadequate drainage and sanitation. The disease is endemic in 250 districts in 20 states and UTs. The population of about 600 million is at risk of lymphatic filariasis. This disease causes personal trauma to the affected persons and is associated with social stigma, even though it is not fatal. The target year for Global elimination of this disease is by the year 2020. Government of India is signatory to the World Health Assembly Resolution in 1997 for Global Elimination of Lymphatic Filariasis. The National Health Policy (2002) has however, envisaged elimination of lymphatic filariasis in India by 2015. The Elimination is defined as "Lymphatic Filariasis ceases to be a public problem, when the number of microfilaria carriers is less than 1 per cent and the children born after initiation of ELF are free from circulating antigenaemia."

Kala-Azar

Kala-azar is caused by a protozoan parasite *Leishmania donovani* and spread by sandfly, which breeds in shady, damp and warm places in cracks and crevices in the soft soil, in masonry and rubble heaps, etc. Proper sanitation and hygiene are critical to prevent sand fly breeding. The National Health Policy (2002) of Govt. of India has set the goal for elimination of Kala-azar from the country by 2010. In pursuance to achieve the elimination goal, case detection and treatment compliance has been strengthened and Rapid Diagnostic Test in 39 and oral drug *miltefosine* have been introduced. World Bank is providing assistance in 46 districts in 3 states namely Bihar, Jharkhand and West Bengal.

Kala-azar is endemic in 52 districts (31 in Bihar, 4 in Jharkhand, 11 in West Bengal and 6 in UP). The Kala-azar Control programme was launched in 1990-91. The annual incidence of disease came down from 77,099 cases in 1992 to 44533 cases in 2007 and deaths from 1419 to 203 in 2007 respectively. In the year 2008, 33234 cases and 146 deaths were reported, whereas in 2009 upto October, 20478 cases and 70 deaths have been reported.

Japanese Encephalitis

Japanese Encephalitis is a zoonotic disease which is transmitted by vector mosquito mainly belonging to *Culex vishnui* group. The transmission cycle is maintained in the nature by animal reservoirs of JE virus like pigs and water birds. Man is the dead end host, i.e. JE is not transmitted from one infected person to other. Outbreaks are common in those areas where there is close interaction between animals/birds and human beings. The vectors of JE breed in large water bodies such as paddy fields. The population at risk is about 300 million. Case definition of AES: Clinically, a case of AES is defined as a person of any age, at any time of the year with the acute onset of fever and a change as a person of any age, at any time of the year with the acute onset of fever and a change in mental status (including symptoms such as confusion, disorientation, coma or inability to talk). AND/OR new onset of seizures (excluding/simple febrile seizures). Other early clinical findings may include an increase in irritability, somnolence or abnormal behavior greater than that seen with usual febrile illness.

A simple febrile seizure is defined as a seizure that occurs in a child aged 6 months to less than six years old, whose only finding is fever and a single generalized convulsion lasting less than 15 minutes and who recovers consciousness within 60 minutes of the seizure.

Epidemiological Situation : JE has been reported from different parts of the country. The disease is endemic in 14 states of which Assam, Bihar, Haryana, and Uttar Pradesh have been reporting outbreaks. During 2006, 2871 cases and 663 deaths due to AES/ JE were reported. During the year 2007, the reported AES figures indicated 4110 cases and 995 deaths. In the year 2008, 3839 cases and 684 deaths were reported. In 2009 (upto 30 November 2009) 4090 cases and 650 death were reported.

Dengue Fever/Dengue Haemorrhagic Fever

Dengue Fever is an outbreak prone viral disease, transmitted by *Aedes Aegypti* mosquitoes. *Aedes aegypti* mosquitoes prefer to breed in man made containers, viz., cement tanks, overhead tanks, underground tanks, tyres, desert coolers, pitchers, discarded containers, junk materials, etc. in which water stagnates for more than a week. This is a day biting mosquito and prefers to rest in hard to find dark areas inside the houses. The risk of dengue has shown an increase in recent years due to

rapid urbanization, lifestyle changes and deficient water management including improper water storage practices in urban, peri-urban and rural areas, leading to proliferation of mosquito breeding sites. The disease has a seasonal pattern i.e. the cases peak after monsoon and it is not uniformly distributed throughout the year. Dengue is a self limiting acute disease characterized by fever, headache, muscle, joint pains, rash, nausea and vomiting. Some infections result in Dengue Haemorrhagic Fever (DHF) and in its severe form Dengue Shock Syndrome (DSS) can threaten the patient's life primarily through increased vascular permeability and shock due to bleeding from internal organs. The case fatality rate which was 3.3 per cent in 1996 had come down to 0.57 per cent in 2009 till November because of better management of Dengue cases in the country following National guidelines.

The Directorate of National Vector Borne Disease Control has provided detailed guidelines for the prevention and control of dengue to the affected states. Intensive health education activities through print, electronic and inter-personnel media, outdoor publicity as well as an inter-sectoral collaboration with civil society organizations (NGOs/CBOs/Self-Help Groups), PRIs and Municipal bodies have been emphasized. Regular supervision and monitoring is conducted by the Programme. The Government of India in consultation with States has identified 137 sentinel surveillance hospitals with laboratory support for augmentation of diagnostic facilities in the endemic states. Further, for advanced diagnosis and back-up support 13 Apex Referral Laboratories have been identified and linked with sentinel surveillance hospitals. To make these functional test kits are provided through National Institute of Virology, Pune and cost is borne by GOI. Contingency grant is also provided to meet the operational costs.

Chikungunya

Chikungunya is a debilitating non-fatal viral illness caused by Chikungunya virus which has re-emerged in the country after a gap of three decades. In India a major epidemic of Chikungunya fever was reported during the last millennium viz., 1963 (Kolkata), 1965 (Puducherry and Chennai in Tamil Nadu, Rajahmundry, Vishakapatnam and Kakinada in Andhra Pradesh, Sagar in Madhya Pradesh and Nagpur in Maharashtra) and 1973 (Barsi in Maharashtra). This disease is also transmitted by *Aedes* mosquito. Both *Ae. aegypti* and *Ae. albopictus* can transmit the disease. Humans are considered to be the major source or reservoir of Chikungunya virus. Therefore, the mosquitoes usually transmit the disease by biting infected persons and then biting others. The infected person cannot spread the infection directly to other person (i.e. it is not a contagious disease). Symptoms of Chikungunya fever are most often clinically indistinguishable from those observed in dengue fever. However, unlike dengue, haemorrhagic manifestations are rare and shock is not observed in Chikungunya virus infection. It is characterized by fever with severe joint pain (arthralgia) and rash. Chikungunya outbreaks typically result in large number of cases but deaths are rarely encountered. Joint pains sometimes persist for a long time even after the disease is cured. During 2006, total 1.39 million clinically suspected Chikungunya cases were reported in the country. Out of 35 States/UTs 16 were affected: Andhra Pradesh, Karnataka, Maharashtra, Tamil Nadu, Madhya Pradesh, Gujarat, Kerala, Andaman and Nicobar Islands, Delhi, Rajasthan, Puducherry, Goa, Orissa, West Bengal, Lakshadweep and Uttar Pradesh.

There are no reported deaths directly related to Chikungunya. In 2007, total 14 states were affected and reported 59535 suspected Chikungunya fever cases with nil death. Subsequently in 2008, 95091 suspected Chikungunya fever cases and nil deaths have been reported. During 2009 till November, 66281 suspected Chikungunya

fever cases and Nil death have been reported. Maximum cases were reported from Karnataka (61.62 per cent) followed by Kerala (17.96).

National Leprosy Eradication Programme (NLEP)

The National Leprosy Control Programme was launched in 1955 based on dapsone monotherapy. Multi Drug Therapy came into wide use from 1982 and National Leprosy Eradication Programme was launched in 1983 with the objective to arrest the disease in all the known cases of leprosy. In 1991, the World Health Assembly resolved to eliminate leprosy at a global level by the year 2000. To strengthen the process of elimination in the country, the World Bank supported project was implemented from 1993 to 2004. Since 2005, the programme is being continued with Government of India funds with technical support from WHO and International Federation of Anti Leprosy Associations (ILEP). Since integration of the programme with GHC system in 2002-03, leprosy diagnosis and treatment services are available at all PHCs and govt. hospitals in the country.

Following are the components of the programme-

- (i) Decentralized integrated leprosy services through General Health Care System.
- (ii) Capacity building of all General Health Services functionaries.
- (iii) Intensified information, Education and Communication (IEC).
- (iv) Prevention of Disability and Medical Rehabilitation and
- (v) Monitoring and Supervision. Spectacular success has been achieved against the disease after introduction of MDT.

The recorded leprosy case load has come down from 57.6 cases per 10,000 population in 1981 to less than one at national level in December 2005 and the country could achieve the goal of leprosy elimination at National level (i.e. prevalence rate of less than 1 case/10,000 population) as set by National Health Policy, 2002. 32 States/UTs also achieved the status of leprosy elimination. Only 3 states/UTs, viz. Bihar, Chhattisgarh and Dadra & Nagar Haveli are yet to achieve elimination. These 3 states/UTs with 10.4 per cent of country's population contributed to 19 per cent of new cases detected during 2008-09. 81 per cent of districts had also recorded PR<1/10,000 population. By end of March 2009, 0.86 lakh leprosy cases were on record and 1.34 lakh new cases were detected during 2008-09. In 2009-10, by the end of September, 76,064 new leprosy cases were detected. Out of these cases, 48 per cent were MB cases. 10.1 per cent child cases, 35.2 per cent female cases and 2.8 per cent were visible deformity cases.

National Programme for Control of Blindness (NPCB)

National Programme for Control of Blindness (NPCB) was launched in the year 1976 as a 100 per cent centrally sponsored scheme with the goal of reducing the prevalence of blindness to 0.3 per cent by 2020. Rapid Survey on Avoidable Blindness conducted under NPCB during 2006-07 showed reduction in the prevalence of blindness from 1.1 per cent (2001-02) to 1 per cent (2006-07). The Pattern of Assistance for National Programme for Control of Blindness during the 11th Five Year Plan has been approved by the Cabinet Committee on Economic Affairs. The Pattern of Assistance for the 11th Five Year Plan is effective from 16 October 2008.

Main objectives of the programme

- a) to reduce the backlog of blindness through identification and treatment of blind;
- b) to develop Comprehensive Eye Care facilities in every district;
- c) to develop human resources for providing Eye Care Services;

- d) to improve quality of service delivery;
- e) to secure participation of Voluntary Organizations/Private Practitioners in eye Care; and
- f) to enhance community awareness on eye care.

Pilot Project on Prevention and Control of Human Rabies

To prevent human deaths due to rabies a pilot project has been initiated as a New Initiative in the 11th Five Year Plan since March 2008, to be completed by March 2010. NCDC (previously known as NICD) is the nodal agency to coordinate various activities under the project. It is being carried out in five cities viz. Ahmedabad, Bangalore, Delhi, Pune and Madurai. The focus of the pilot project is on training of health professionals about rabies and animals bite management, ensuring timely and adequate post exposure treatment to all animal bite victims, creating awareness in the community regarding rabies, animal bites and its prevention, strengthening laboratory diagnostic capabilities, facilitating introduction of intradermal route of vaccination and sensitizing veterinarians.

A total amount of Rs. 3.26 crore has been allocated for the project. An amount of Rs. 1.81 crore was released during 2008-09 to pilot project cities to carry out various activities :

- 1) Three training courses for core trainers from pilot project cities have been conducted at NCDC. Thirty-seven core trainers have, in turn, trained 1394 doctors and para medical staff in their respective cities on appropriate animal bite management and intradermal inoculation of cell culture vaccine.
- 2) None of the pilot project cities was using intradermal route of inoculation of cell culture vaccine. After the initiation of the project and receiving training, Bangalore, Pune and Madurai have implemented intradermal route of inoculation in 21 ARCs. Ahmedabad and Delhi are in process of doing so.
- 3) None of the pilot project cities (except Delhi) was procuring Rabies Immunoglobulins (RIG). After initiation of the project and receiving training all the pilot project cities are procuring RIG out of the funds allocated in the project and are using it appropriately.
- 4) Ahmedabad, Bangaluru, Pune and Madurai have strengthened one laboratory each. They have procured fluorescent microscope and conjugate.
- 5) Training has been conducted for Doctors and Laboratory technicians on lab diagnostic techniques in October 2008 at NCDC.
- 6) Expert group meeting to develop prototype IEC material was held at NCDC, Delhi. The pilot project cities have translated prototype IEC material in local languages and disseminated in the form of hoarding, posters and Radio Jingles.
- 7) Base line data has been received form pilot project cities.
- 8) Visits to pilot project cities have been undertaken to review the progress of the project in the respective cities.
- 9) Scientific advisory group has been constituted to monitor the implementation and progress of project.

National Tobacco Control Programme

A comprehensive tobacco control legislation titled "The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce,

Production, Supply and Distribution) Act, 2003" was notified in the official gazette on 19 May 2003. The Act is applicable to whole of India and covers all types of tobacco products. The main provisions of the Act are as follows:

- a) No person shall engage in smoking in a public place; **(Revised Rules have been notified and came into effect on 2 October 2008).**
- b) To prohibit direct and indirect advertisement of and provide for regulation of the trade and commerce in production, supply and distribution of all tobacco products.
- c) There shall be a total ban on sponsoring of any sport/cultural events by cigarette and other tobacco product companies.
- d) No person shall sell tobacco products to any person below the age of 18 years. **(implemented w.e.f. 1 May 2004)**
- e) Ban of sale of tobacco products within a radius of 100 yards of educational institutions. **(implemented w.e.f. 1 December 2004)**
- f) No person shall trade in any tobacco products including imported products unless the specified warnings are indicated. **(Rules have been notified and have come into effect from 31 May 2009)**

In order to facilitate the implementation of the Tobacco Control Laws to bring about greater awareness about the harmful effects of Tobacco and to fulfill the obligation(s) under the WHO FCTC, Ministry of Health and Family Welfare has launched a new National Tobacco Control Program (NTCP) in the 11th Five Year Plan. Pilot phase of NTCP was launched in 2007-08 in 18 Districts covering 9 States. In 2008-09 it has been upscaled to 24 New Districts covering 12 States. The pilot programme at present is under implementation in 42 districts in 21 states in the country. The main components of NTCP are :

- i) Public awareness/mass media campaigns for awareness building and for behavioural change.
- ii) Establishment of tobacco product testing laboratories, to build regulatory capacity, as required under COTPA, 2003.
- iii) Mainstreaming the programme components as a part of the health delivery mechanism under the NRHM framework.
- iv) Mainstream Research and Training on alternate crops and livelihoods with other nodal Ministries.
- v) Monitoring and Evaluation including surveillance e.g. Adult Tobacco Survey.

National AIDS Control Programme

In order to control the spread of HIV/AIDS, Government of India is implementing the National AIDS Control Programme (NACP) as a 100 per cent centrally sponsored scheme. Launched in July 2007, NACP Phase-III (2007-2012) has the goal to halt and reverse the epidemic in the country over the next 5 years by integrating programmes for prevention, care, support and treatment. The programme has adopted a four pronged strategy:

1. Prevention of new infections in high risk groups and general population.
2. Providing greater care, support and treatment to larger number of PLHA.
3. Strengthening the infrastructure, systems and human resources in prevention, care, support and treatment programmes at the district, state and national level.

4. Strengthening the nationwide Strategic Information Management system.

These are being achieved by upscaling targeted interventions among the high risk groups, behaviour change communication for improved awareness, expanding, counselling and testing services, blood safety, support and treatment of HIV infected persons including the treatment of opportunistic infections, provision of anti-retroviral drugs and mainstreaming of HIV intervention strategies.

The Status of HIV/AIDS Epidemic in India

- According to the HIV Sentinel Surveillance 2008-09, the estimated People Living with HIV in India in 2009 was up to 23.9 lakh, with an estimated adult HIV prevalence of 0.31 per cent. The data shows that the epidemic in India has stabilized over the years.
- The epidemic is concentrated with high prevalence among the High Risk Groups (HRGs) - Injecting Drug Users (IDUs) (9.2 per cent), Men who have sex with men (MSM) (7.3 per cent), Females Sex Workers (FSW) (4.9 per cent) and Sexually Transmitted Infection clinic attendees (2.5 per cent). Compared to this the prevalence among ANC clinic attendees (pregnant women-proxy for general population) is much lower (0.49 per cent).
- Heterosexual mode of HIV transmission accounted for 87.1 per cent of HIV positive cases detected, Mother to child transmission accounted for 5.4 per cent of HIV infections, Injecting drug user 1.7 per cent, Men who have Sex with Men accounted for 1.5 per cent and contaminated blood and blood products accounted for 1 per cent for HIV infections during 2009-10.

Achievements of National AIDS Control Programme (Phase-III) (till June 2010)

- Targeted Interventions (TI) implemented through NGOs and CBOs provide behaviour change communication, condom promotion, STI care, and referrals for HIV testing and Anti-Retroviral Treatment. TIs have been scaled up to 1,311 projects to increase the coverage of Female Sex Workers to 78.3 per cent, Injecting Drug Users to 76.2 per cent, Men having sex with Men to 70.3 per cent and bridge population including Migrants (37.1 per cent) and Truckers (38.5 per cent). There are 220 additional TI projects supported by partner organisations. Over 30 crore condoms were distributed, over 12 lakh High risk group individuals were referred and tested at ICTC and 10 lakh on STI episodes were treated in 2009-10 through TI projects.
- The Link Worker Scheme is a short-term intervention to address the prevention and care needs of population with high-risk behaviours and young people in rural areas. Important services offered are referrals to ICTC services and STI services, condom promotion and provision of Information related to HIV prevention and related services. As on date this scheme is being implemented in 126 districts of the country in 18 states through 209 District Resource Persons and 4,957 Link Workers. Till 31 May 2010, 2,72,167 persons referred to ICTC, 1,07,645 persons referred for STI services, 26,147 condom depots established under Link worker scheme.
- During 2009-10, 82.4 Lakh episodes of Sexually Transmitted Infections were treated till March 2010 through 938 designated STI/RTI clinics located at District and Teaching hospitals, 1,311 STI clinics in Targeted Interventions and 4,744 preferred private STI service providers for high risk population. Additional 16.7 lakh new STI episodes have been treated in 2010-11 (till June 2010).

- Under the Condom Social Marketing Programme, 24.5 crore pieces condoms were distributed during 2009-10.
- Under Blood Safety Programme, 1103 blood banks are being supported under the programme including 131 Blood Component Separation facilities. 76.1 per cent of blood units collected during 2009-10 are through voluntary blood donation by organizing 60,468 blood donation camps. New initiatives include establishment of 4 Metro Blood Banks of 1,00,000 units capacity each in four metropolitan cities, and one large Plasma Fractionation Centre at Chennai with processing capacity of 1.5 lakh litres plasma annually.
- Counselling and testing services have been scaled up significantly and 143.6 lakh persons were counselled and tested through 5,223 Integrated Counselling and Testing Centres, including 61.2 lakh pregnant women, till March 2010 and 31.2 lakh persons were counselled and tested including 13.7 lakh pregnant women in 2010-11 (till June 2010). Nevirapine prophylaxis was provided to 12,282 mother-baby pairs to prevent mother to child transmission of HIV.
- In June 2001, Department of AIDS Control has provided free Anti-Retroviral Treatment (ART) to 3,35,232 through 281 ART centres and 1,403 more are on second line ART through 10 Centres of Excellence.
- 487 Link ART centres are operational as of June 2010 for reinforcing drug adherence and 292 Community Care Centres are operational as of June 2010 for reinforcing adherence counselling including management of Opportunistic Infections.
- Information Education and Communication aims at effective behaviour change with the target of creating an empowering and enabling environment for all. It focuses on reduction of stigma and discrimination and promoting of services, while giving special emphasis to youth and women who are more vulnerable to HIV Infection. During 2009-10, regular campaigns were conducted through TV, radio and newspaper, supported by outdoor activities, mid-media and inter-personal communication. Campaigns were released on Voluntary Blood Donation, ICTC and condom promotion, HIV-TB and Prevention of Parent to Child Transmission (PPTCT), 7,677 Red Ribbon Clubs in colleges encourage peer-to-peer messaging on HIV prevention. 208 drop-in-centres supported by Department of AIDS Control are run by People Living with HIV/AIDS (PLHA) networks to promote positive living and improve quality of life. Special multimedia campaigns for youth were organised in the North-East states of Mizoram, Nagaland and Manipur using sports and music.
- The Red Ribbon Express has emerged as the world's largest mass mobilization programme against HIV/AIDS. Building upon the success of the first phase of the Red Ribbon Express project (2007-08), NACO launched the second phase of the project on 1 December 2009 to commemorate the World AIDS Day. The specially designed 8 coach exhibition train was flagged off from Delhi Safdarjung station by the Chairperson, Rajiv Gandhi Foundation and Chairperson, United Progressive Alliance (UPA) Mrs. Sonia Gandhi. During its year long journey the RRE will travel across 22 states, covering 152 halt stations.

This time, the National Rural Health Mission has also come on board with NACO. Along with the three exhibition coaches with exhibits on HIV/AIDS, the fourth exhibition coach is on NRHM with exhibits of H1N1, Tuberculosis, Malaria, Reproductive and Child Health services, general health and hygiene. There is one

coach for counselling and one for conducting trainings of district level resource persons such as members of Panchayati Raj Institutions, Self Help Groups, government officials, health workers, youth organizations, teachers, defence and police personnel. The project is successfully mobilizing political leadership in states, districts and Panchayati Raj Institutions.

Achievements of Red-Ribbon Express (June 2010)

- Covered over 192 stations in the states of Delhi, Rajasthan, Gujarat, Maharashtra, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Orissa, West Bengal, Assam and Nagaland.
- About 3,89,202 lakh people reached.
- 47,281 district resource persons trained. More than 32,360 counselled and 21,093 tested for HIV.

Mid-Term Review of NACP-III

Mid-Term Review (MTR) of NACP-III was conducted from 16 November-3 December 2009 by the MTR mission with representatives from World Bank, DFID and other development partners. The mission carried out a comprehensive evaluation of strategies, plans, resources and activities undertaken in the first half of NACP-III. Several studies were undertaken to inform MTR on the effectiveness and impact of strategies, progress against the set targets and areas that need mid-course corrections. These studies provided critical inputs to refine the programme interventions and enable them achieve greater impact.

The Mid-Term Review mission mentioned in its Aide Memoire that :

- Development objectives of NACP-III are well within reach, that many targets were reached and even surpassed. Behaviour Surveillance Survey (BSS) coverage estimates for 6 states validate this.
- Prevalence among Antenatal Clinic attendees, Patients with Sexually Transmitted Infections, Female Workers and Men having Sex with Men is declining. Vast majority of new infections and existing burden of disease concentrated in 5-15 per cent of districts.
- Impressive gains have been made in Anti Retroviral Therapy services, upscaling of Integrated Counselling and Testing Centres and Identifying People Living with HIV/AIDS (PLHA).
- There has been significant scale-up of Targeted Interventions.
- Condom distribution has increased.
- More emphasis is needed on quality in areas with high HIV prevalence and high vulnerability.
- Convergence with NRHM has begun. However, more progress is required in areas like supply chain management and laboratory services.

National Iodine Deficiency Disorders Control Programme

Iodine is an essential micronutrient with an average daily at 100-150 micrograms for normal human growth and development. Deficiency of Iodine can cause physical and mental retardation, cretinism, abortions, stillbirth, deaf mutism, squint and various types of goitre. Results of sample surveys conducted in 325 districts covering all the States/Union Territories have revealed that 263 districts are endemic where the prevalence of Iodine Deficiency Disorders is more than 10 per cent. It is estimated that more than 71 million persons are suffering from goitre and other Iodine Deficiency Disorders.

The Government is implementing the National Iodine Deficiency Disorders Control Programme (NIDDCP) formerly known as National Goitre Control Programme (NGCP) since 1962 a 100 per cent centrally assisted programme with a focus on the provision of iodised salt, IDD survey/resurvey, laboratory monitoring of Iodated salt and Urinary Iodine excretion, health education and publicity. The annual production of Iodated salt is about 52.00 lakh M.T. Government of India has banned the sale of non-iodated salt in the entire country for direct human consumption under Prevention of Food Adulteration Act, 1954 with effect from 17 May 2006.

For effective implementation of the Programme at the State level, the Ministry of Health is providing financial assistance to all the States/UTs for establishment of an IDD Control Cell and IDD Monitoring Laboratory in addition to assistance for conducting surveys and Health Education and Publicity for consumption of iodated salt by the population.

National Mental Health Programme (NMHP)

National Mental Health Programme was started in 1982 with the objectives to ensure availability and accessibility of minimum mental health care for all to encourage mental health knowledge and skills and to promote community participation in mental health service development and to stimulate self-help in the community. There is shift in approach of mental health care services. From hospital based care (institutional) the approach now is towards providing community based mental health care, as majority of mental disorders do not require hospitalization and can be managed at community level. During IX five year plan, District Mental Health Programme was started (1996) based on Bellary Model developed by NIMHANS, Bangalore. During the plan period, 27 districts were covered under DMHP. At present DMHP is covering 123 districts in nearly all states and UTs. An evaluation of NMHP was undertaken in 2003 and the programme was re-strategized to incorporate components for effective reach and impact on mental illnesses.

Main strategies of NMHP during the 10th Plan period were as follows :

- Expansion of DMHP.
- Strengthening and modernization of mental hospitals.
- Upgradation of Psychiatric wings in the General hospitals/Medical Colleges.
- IEC Activities.
- Research and Training in Mental health for improving service delivery constraints faced during implementation of UMHP.
- Lack of an inbuilt and dedicated monitoring and implementing mechanism for programme.
- Shortage of skilled manpower in Mental Health.
- Lack of awareness/stigma about Mental illness.
- Lack of facilities for treatment of mentally ill.
- Lack of coordination between implementing departments of DMHP i.e. Medical Education and Health in the states.
- Lack of Community involvement.

There is acute shortage of manpower in the field of mental health i.e. Psychiatrists, Clinical Psychologists, Psychiatric Social workers and Psychiatric

Nurses. This is a major constraint in meeting the mental health needs and providing optimal mental health services at the community level. Due to shortage of manpower in mental health, the implementation of DMHP suffered adversely in previous years. Taking into account these constraints, consultations were held with relevant stakeholders and components of NMHP were revised for 11th Five Year Plan.

- i) Manpower Developments.
 - a. Establishment of centres of Excellence in Mental Health.
 - b. Support for starting/increasing training posts to institutes.
- ii) District Mental Health Programme.
- iii) Training and research.
- iv) IEC.
- v) NGO/PPP.
- vi) Implementation, Monitoring and Evaluation.
- vii) Spill over activities of 10th plan.
- viii) State Mental Health Authority.

The details of Manpower Development Schemes are as under :

Centres of Excellence in Mental Health

Centres of excellence in the field of mental health are being established by upgrading and strengthening identified existing mental health hospitals/institutes for addressing acute manpower gap and provision of state-of-the-art mental health care facilities in the long run. The Budgetary support of up to ₹ 30 crore per centre would be provided for capital work, equipment and furnishing, faculty induction and retention for the plan period.

Scheme for Manpower Development in Mental Health

To provide an impetus for development of Manpower in Mental Health, other training centres/Government Medical Colleges/Government General Hospitals/State run Mental Health Institutes) would also be supported for starting PG courses or increasing the intake capacity for PG training in mental Health. Support would be provided for setting up/strengthening 30 units of psychiatry, 30 departments of Clinical Psychology, 30 departments of PSW and 30 departments of psychiatric Nursing with the support of up to ₹ 51 lakh to ₹ 1 crore per PG department.

Yaws Eradication Programme (YEP) in India

Yaws Eradication Programme (YEP) was launched as a centrally sponsored scheme in 1996-97 in Koraput district of Orissa, which was subsequently expanded to cover all the 51 Yaws endemic districts in ten states (Andhra Pradesh, Orissa, Maharashtra, Madhya Pradesh, Chhattisgarh, Tamil Nadu, Uttar Pradesh, Jharkhand, Assam and Gujarat). The programme aimed to reach the un-reached tribal areas of the country. National Centre for Disease Control Formerly National Institute of Communicable Diseases) has been identified as the nodal agency for the planning, monitoring and evaluation of the Programme. The Programme is implemented by the State Health Directorates through the existing health care system. The number of reported cases has come down from 3751 to nil during the period from 1996 to 2004 and subsequently no case has been reported from any of the states till October 2009.

The programme envisages achieving its objective through adoption of following strategies :

- Case finding: active case search, passive surveillance, rumour reporting;
- Treating of cases and contacts;
- Manpower Development;
- IEC activities;
- Multisectoral approach.

Around 21000 sera samples collected from 1-5 years children till October 2009 tested negative for Yaws by RPR/TPHA test. Funds in the form of "Grant-in-aid" are being provided to the states for operational cost to undertake activities under YEP.

Guinea Worm Eradication Programme (GWEP)

In 1983-84, National Centre for Disease Control (Formerly, National Institute of Communicable Diseases) was made the nodal agency by the Ministry of Health and Family Welfare, Govt. of India, for planning, co-ordination, guidance and evaluation of Guinea Worm Eradication Programme (GWEP). At the beginning of the Programme i.e. in 1984, about 40,000 GW cases were reported in 12,840 guinea worm endemic villages across 89 districts of seven endemic states, viz. Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra and Rajasthan. The State of Tamil Nadu remained free from GW disease since 1982. The last guinea worm case in India was reported in July 1996 in Jodhpur district of Rajasthan. World Health Organization certified India as guinea worm disease free country in February 2000. However, routine surveillance continues till the disease is eradicated from the globe.

National Cancer Control Programme

Cancer is an important public health problem with about 9 lakh cases occurring every year. At any point of time, it is estimated that there are nearly 25 lakh cases in the country. Every year about 4 lakh deaths occur due to cancer. 40 per cent of the cancer cases in the country are related to tobacco use. Hence Tobacco-related cancers are very common among males namely cancers of the lungs and oral cavity. Among women, cancer of uterine cervix and breast are common. National Cancer Control Programme was launched in 1975-76 with the objectives of primary prevention, early detection, treatment and rehabilitation. In view of the magnitude of the problem and the requirement to bridge the geographical gaps in the availability of cancer treatment facilities across the country, the programme was revised in 1984-85 and subsequently in December 2004. The following are the existing schemes w.e.f. January 2005 till date.

- (i) **Recognition of New Regional Cancer Centres (RCCs)** : To enhance the cancer treatment facilities across the country and reduce the geographical gap in the availability of cancer care facilities, new Regional Cancer Centres are being recognised. A one-time grant of ₹ 5.00 crore is being provided for New RCCs.
- (ii) **Strengthening of Existing Regional Cancer Centres** : A one-time grant of Rs. 3.00 crore is provided to the existing Regional Cancer Centres to further strengthen the cancer care services.
- (iii) **Development of Oncology Wing** : Government Hospitals and Government Medical Colleges are provided with a grant of ₹ 3.00 crore for the development of Oncology Wing.
- (iv) **District Cancer Control Programme** : The District Cancer Control Programme

will be implemented by a nodal agency, which may be a Regional Cancer Centre or Government Medical College or Government Hospital with radiotherapy facility. A cluster of 2-3 congruent districts are taken up for prevention, early detection, minimal treatment and provision of supportive cancer care at district levels. A grant of ₹ 90.00 lakh spread over a period of 5 years is provided per DCCP.

- (v) **Decentralized NGO Scheme :** A grant of ₹ 8000/- per camp is provided to the NGOs for IEC activities. The funds are released through the Nodal Agency which could be a Regional Cancer Centre or Government Medical College or Government Hospital with radiotherapy facilities.

Health Minister's Cancer Patient Fund : Cancer treatment is highly expensive and prolonged. Chemotherapy may cost anywhere between ₹ 5000 to ₹ 5 lakh per cycle. Certain drugs cost even up to ₹ 40,000 per dosage once a week, for treatment cycle involving 6 to 12 weeks. Cancer can be equally distressing for the family, profoundly affecting both the family's daily functioning and economic situation. To provide financial assistance to the poor and the needy BPL cancer patients Health Minister's Cancer Patient Fund has been established with a corpus of ₹ 100 crore. The entire amount has been released to Rashtriya Arogya Nidhi so that cancer treatment is more affordable and accessible.

EMERGENCY MEDICAL RELIEF HEALTH

Sector Disaster Management

Emergency Medical Relief Division (EMR) of Directorate General of Health Services, Ministry of Health and Family Welfare, Govt of India is mandated for prevention, preparedness, mitigation and response on health sector disaster management activities and coordinates health activities in terms of manpower and material logistic support to the states.

Preparedness and Response for Disasters Preparedness for disasters

The Emergency Support Functions plan circulated to all concerned contains the emergency support functions assigned to the MOHFW which includes details of nodal officers for coordination, crisis management and quick response at headquarters and field level, resource inventory etc. This plan also contains instructions regarding deployment of resources in the event of disasters. The Contingency Plan specific to combat droughts and floods is also circulated in the pre-monsoon period to all the States.

Response

Ministry of Health and Family Welfare was represented in the central assessment teams of the Ministry of Home Affairs which visited Andhra Pradesh for floods and Rajasthan for drought. Rapid Health assessments were done and relief recommended in terms of norms under Calamity Relief Fund/National Calamity Contingency Fund. The flood situation in the States of Andhra Pradesh, Karnataka, Orissa, Kerala, and Uttar Pradesh were monitored. EMR division coordinated outbreak investigations in the States of Uttar Pradesh, Bihar, Gujarat, Maghalaya and Kerala. The concerned state Governments were advised on prevention and containment measures.

PUBLIC HEALTH EMERGENCIES

Preparedness and Response for Avian Influenza

Ministry of Health and Family Welfare, Government of India took adequate measures to contain the human cases of Avian Influenza if it is to happen. There is an existing

strategic plan for pandemic preparedness and a contingency plan to manage human cases of Avian Influenza. The National Centre for Disease control (NCDC), Delhi has been identified as the nodal agency to investigate any suspected cases/outbreak. National institute of Virology (NIV), Pune was identified as the apex laboratory. Rapid response teams of the centre and the states were trained and kept in readiness. National stockpile of Oseltamivir (Tamiflu) personal protective equipments were maintained. The preparedness measures came handy in responding to Avian Influenza outbreaks in the States of West Bengal, Assam and Sikkim. In all these States Avian influenza outbreak in poultries were contained and there was no human case of Avian influenza.

Pandemic Influenza-Preparedness and Response

Illness like Influenza caused by influenza A (H1N1), a re-assorted influenza virus, was reported from Mexico on 18 March 2009 and rapidly spread to affect 208 countries. World Health Organization has raised the pandemic alert level to 6, declaring pandemic of influenza H1N1 of moderate severity. The preparedness measures undertaken for avian influenza came handy. The existing measures were scaled up and additional measures put in place to limit the entry/spread of disease into India and to mitigate the impact of the evolving pandemic.

Prevention of Food Adulteration Programme

The Ministry of Health and Family Welfare is responsible for ensuring safe food to the consumers. Keeping this in view, a legislation called "Prevention of Food Adulteration Act, 1954" was enacted. The objective envisaged in this legislation was to ensure pure and wholesome food to the consumers and also to prevent fraud or deception. The Act has been amended thrice in 1964, 1976 and in 1986 with the objective of plugging the loopholes and making the punishments more stringent and empowering Consumers and Voluntary Organisations to play a more effective role in its implementation.

The subject of the Prevention of Food Adulteration is in the concurrent list of the Constitution. However, in general, the enforcement of the Act is done by the State/U.T Governments. The Central Government primarily plays an advisory role in its implementation besides carrying out various statutory functions/duties assigned to it under the various provisions of the Act.

The laws regulating the quality of food have been in force in the country since 1899. Until 1954, several States formulated their own food laws. But there was a considerable variance in the rules and specifications of the food, which interfered with inter-provincial trade. The Central Advisory Board appointed by the Government of India in 1937 and the Food Adulteration Committee appointed in 1943, reviewed the subject of Food Adulteration and recommended for Central legislation. The Constitution of India provided the powers to Central Government for making such legislation as the subjects of Food and Drugs Adulteration are included in the concurrent list. The Government of India, therefore, enacted a Central Legislation called the Prevention of Food adulteration Act (PFA) in the year 1954 which came into effect from 15 June 1955. The Act repealed all laws, existing at that time in States concerning food adulteration.

In India, a three-tier system is in vogue for ensuring food quality and food safety. They are:(a) Government of India; (b) State/UT Governments;(c) Local Bodies.

The Prevention of Food Adulteration Act is a Central legislation. Rules and Standards framed under the Act are uniformly applicable throughout the country. Besides framing of rules and standards, the following activities are undertaken by the Ministry of Health and Family Welfare.

(1) Keeping close liaison with State/local bodies for uniform implementation of food laws. (2) Monitoring of activities of the States by collecting periodical reports on working of food laws, getting the reports of food poisoning cases and visiting the States from time to time. (3) Arranging periodical training programme for Senior Officer/Inspector/Analysts. (4) Creating consumer awareness about the programme by holding exhibitions/seminars/training programmes and publishing pamphlet. (5) Approving labels of Infant Milk Substitute and Infant food, so as to safeguard the health of infants. (6) Coordinating with international bodies like ISO/FAO/WHO and Codex. (7) Carrying out survey-cum-monitoring activities on food contaminants like colours. (8) Giving administrative/financial/technical support to four Central Food Laboratories situated in Kolkata, Ghaziabad, Mysore and Pune and providing technical guidance to the food laboratories set up by the States/Local Bodies. (9) Holding activities connected with National Monitoring Agency vested with powers to decide policy issues on food irradiation. (10) Formulation of Manual on food analysis method.

The Ministry of Health and Family Welfare is designated as the National Codex Contact Point in India to examine and formulate India's views on the agenda for the various meeting of Codex Alimentarius Commission, a joint venture of FAO/WHO dealing with International Food Standards and its subsidiary committees. The Ministry of Health and Family Welfare constituted a National Codex Committee (NCC) and an Assistant Director General (PFA) has been working as Liaison Officer for NCC. The NCC has further constituted 24 Shadow Committees corresponding to various Codex commodities committees for preparation and finalization of India's stand.

India has been regularly attending the various sessions of the Codex Alimentarius Commission and various Codex Commodity Committees to put forward her views and defend these views.

Harmonisation of PFA with Codex: After signing the Sanitary and Phytosanitary (SPS) and Technical Barrier to Trade (TBT) agreements by India and removal of quantitative restrictions on import of food products into India, the exercise of harmonization of standards for food products, use of food additives, microbiological requirements, harmonization of regulations, in line with international standards prescribed by Codex Alimentarius Commission and International Standards Organisation (ISO) had been initiated.

Role of State/UT Governments: Enforcement of the food laws primarily rests with the State/UTs. There are 28 States and 7 Union Territories in the country. The implementation of the Act in most of the States is under the administrative control of the Directorate of Health Services, whereas, in a few States, the implementation is being combined with Drugs Administration under the Joint Food and Drug Administration. The implementation has been left to the administrative set-up of the States, but it has been stressed on the States that whatever the structure be, there should be a whole-time Senior Officer duly qualified and experienced in Food Science, Food Technology, Food Analysis with other supporting officers and inspectors. State Governments are also empowered to make rules laying down details of licensing

conditions of food, the establishments of food industries and prescribing licence fees.

The provisions under PFA Rules have been amended nearly 360 times and standards of around 250 articles of food which are of mass consumption have been prescribed. While making amendments, standards formulated by Codex/ technological development in the food industry sector/ dietary habits/ nutritional status of our population, social/ cultural practices are taken into consideration.

By and large, in most of the States, implementation in corporation/ municipal area rests with the Local Bodies which employ their own food inspectors. Licensing of food industries/ establishments is also left to them.

There are 72 food laboratories in the country at District/ Regional or State level in addition to four Central Food Laboratories set up by the Central Government. Almost every State has got one or more laboratories depending upon its need. About 12 of these laboratories are under the administrative control of the local bodies whereas the remaining ones are under the administrative control of the State Government.

Following constraints have been noticed in the programme: -

- (1) Shortage of Food Inspectors with the States/ Local Bodies,
- (2) Deficiency in the testing laboratories on the following counts:
 - (a) Inadequate trained manpower,
 - (b) Inadequate testing facilities,
 - (c) Non-availability of sophisticated equipment,
 - (d) Inadequate budgetary provision, and
 - (e) Non-availability of reference standard material.
- (3) Non-availability of programme officer for PFA with the State/ Local Bodies at State and District levels,
- (4) Non-availability of separate legal cell for trial of PFA cases with the State/ Local Bodies, and
- (5) Non-availability of regular refresher training programme for all the functionaries.

Efforts of Central Government for Solving the Constraints :

- (1) Refresher training programmes are being arranged for all the functionaries namely:- (a) Food Inspectors, (b) Local (Health) Authorities, (c) Food (Health) Authorities, (d) Public Analyst and Chemist. Training for Analysts and Chemists are being organized in their own laboratories by trainers deputed by the Central Government. These trainers stay in one lab for six working days and first of all they set up the laboratory as per Good Laboratory Practices and thereafter, the specific training is organized.
- (2) Sophisticated equipments are being supplied to State Food Testing Laboratories so that at least one laboratory in each State is appropriately strengthened. Efforts are being made to ensure that warranty of the equipment so supplied are for minimum 3 years along with consumables and proper training is provided to the analysts/ chemists by the supplier for handling and running the equipment.
- (3) Efforts are also being made to ensure that each State is linked electronically with its District Headquarters. The expenditure for this is proposed to be provided from the World Bank assisted Capacity Building Project for Food and

Drugs being implemented by the Central Government. This will facilitate smooth sharing of information and networking.

- (4) Efforts are being made to provide at least one analyst from the Central Budget through the World Bank Assisted Project in each Food Testing Lab for a period of 5 years.
- (5) Standard reference material for pesticides, listed under Rule 65 of PFA Rules, all the materials listed under Rule 57 of the PFA Rules and aflatoxin are being supplied to one lab in each State.
- (6) Books on methods of analysis like AOAC, Pearson, Food Chemical Codex, have already been supplied to a majority of the laboratories.
- (7) Training programme for consumers, traders, vendors and street food hawkers has been organized and will be organized in future as a consumer education programme on food safety.
- (8) Sensitisation training programmes have been organized for Port (Health) Officers/Customs Officers/Customs House Clearing Agents and importers on various provisions of PFA Act/Rules and other provisions namely Packaged Commodity Order and Customs Act, so that these officers may appropriately handle the imported food product.

The Food Safety and Standards Act, 2006: With the coming into effect of the Food Safety and Standards Act, 2006 (FSSA) enacted by Parliament in August 2006, the Prevention of Food Adulteration Act, 1954 stands repealed from the date on which Food Safety and Standards Act comes into force on such date as the Central Government may decide by notification in the Gazette.

Notwithstanding the repeal of the enactment and Orders specified in the Second Schedule, the standards, safety requirements and other provisions of the Act and the rules and regulations made thereunder and Orders listed in that Schedule shall continue to be in force and operate till new standards are specified under this Act or rules and regulations made thereunder.

Provided that anything done or any action taken under the enactment and Orders under repeal shall be deemed to have been done or taken under the corresponding provisions of this Act and shall continue in force accordingly unless and until superseded by anything done or by any action taken under this Act.

World Bank Assisted Capacity Building Project on Food Safety

As trade in food commodities expands globally, food safety can no longer be considered a mere domestic issue. The agreements under the WTO require the development of modern food control and safety programmes by national Governments. The issue does not relate only to end-product parameters but also to process control.

In order to strengthen the food safety infrastructure in the country, a 5 year World Bank Aided Capacity Building Project for Food Safety and Quality Control of Drugs has been launched by the Central Government.

The Project Objectives/Components are as below: (i) To enhance the capacities of laboratories at the State and Central levels through infrastructure strengthening and training of personnel to upgrade their existing skills. It is separately proposed that only those labs be allowed to do statutory testing which are accredited to NABL

(National Accreditation Board for Testing and Calibration Laboratories). (ii) To introduce GMP (Good Manufacturing Practice) and HACCP (Hazard Analysis and Critical Control Points) in the medium and small-scale food processing operations and upgrade facilities in the laboratories including testing for microbiological contamination. (iii) to create greater awareness of food safety and hygiene in the small, cottage and unorganised sectors including the street food sector through training. (iv) to develop a system of continuous surveys of households to get client perceptions which will provide substantive inputs for policy development and programme improvements. (v) Setting up of Management Information System and electronic linkages between Central and State Offices and Central and State Labs in the area of food to ensure better monitoring and data collection.

MEDICAL COUNCIL OF INDIA

The Medical Council of India (MCI) was established as a statutory body under the provisions of the Indian Medical Council Act 1933 which was later repealed by the Indian Medical Council Act 1956 with minor amendments in 1958. A major amendment to the I.M.C. Act 1956 was made in 1993 making it mandatory for obtaining the approval of the Ministry of Health and Family Welfare for opening new medical colleges/increasing seats, starting new courses in order to regulate the standard of medical education in the country. The I.M.C. Act 1956 was further amended in 2001 to enable the Medical Council of India to conduct Screening Tests for Indian nationals holding foreign medical qualifications to test their skill before granting them registration to practice medicine in India. Through the same amendment Act, it has been made mandatory for Indian students desirous of taking admission in an under-graduate medical course in an Institute abroad to obtain an Eligibility Certificate from the MCI stating that he/she conforms to the norms laid down by the MCI for this purpose. The main functions of the Council are maintenance of uniform standard of medical education both at the undergraduate and the postgraduate levels; maintenance of Indian Medical register; reciprocity with foreign countries in the matter of mutual recognition of medical qualifications; continuing medical education and granting of provisional/permanent registration of doctors with recognized medical qualifications, registration of additional qualifications and issue of Good Standing Certificate for doctors going abroad to Commonwealth countries. At present there are 264 medical colleges in the country out of which 185 medical colleges have been recognized by MCI and 90 new medical colleges have been permitted by the Central Government to conduct MBBS courses. The admission capacity in these colleges is approximately 30,122 students per year.

CENTRAL HEALTH EDUCATION BUREAU

Central Health Education Bureau (CHEB) is an apex institution which had a humble beginning on 6 December 1956 under Directorate General of Health Services (DGHS), Ministry of Health and Family Welfare, Government of India, for the health education and health promotion in the country with the following objectives: (a) Interpret the plans, programmes and achievements of the Ministry of Health and Family Welfare. (b) Design, guide and conduct research in health behaviour, health education process and aids. (c) Produce and distribute "Proto-type" Health Promotion and Education material in relation to various health problems and programmes in the country. (d) Train key health and community welfare functionaries in health education and research methods and evolve effective methodology and tools of training. (e) Help schools and teacher training institutes for health education of the school population.

- (f) Provide guidelines for the organizational set-up, functioning of health education units at the state, district and other levels. (g) Render technical help to official and non-official agencies engaged in health education and coordinate their programmes. (h) Collaborating with international agencies in promoting health education activities.

The Bureau, located in New Delhi, is headed by a Director, an SAG level officer who is assisted by a team of officers in different disciplines. CHEB is accessible through internet at website- <http://.cheb.nic.in> and with e-mail : dir.cheb@nic.in

Responding to the current challenges and needs in the field of health education and promotion, CHEB has reorganized its divisions into four technical and one administrative Divisions. Each division is headed by a senior officer.

The key functions of CHEB presently include imparting long-term and short-term training programmes to different levels of health and non-health professionals. The Bureau is conducting a two-year Post Graduate Diploma in Health Education (DHE) which is recognized by the Medical Council of India and is affiliated to Delhi University.

The Bureau produces prototype health education and health promotion materials on different health issues both in print and electronic media like posters, leaflets, pamphlets, audio-visual spots (for telecasting on TV Channels, and narrowcast in events such as Health melas/exhibitions, health awareness campaigns). The Bureau participates in various health meals/ national level exhibitions and puts up exhibitions on various health issues for mass awareness. Press advertisements are given as a part of the observance of commemorative days and weeks.

RASHTRIYA AROGYA NIDHI

Rashtriya Arogya Nidhi was set up in 1997 to provide financial assistance to patients, living below poverty line, who are suffering from major life threatening diseases to receive medical treatment in Government Hospitals. Under the scheme of Rashtriya Arogya nidhi, grants-in-aid are also provided to State Governments for setting up State Illness Assistance Funds. Such funds have been set up by the Governments of Andhra Pradesh, Bihar, Chhattisgarh, Goa, Gujarat, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Jharkhand, Maharashtra, Mizoram, Rajasthan, Sikkim, Tamil Nadu, Tripura, West Bengal, Uttrakhand, Haryana, Punjab, Uttar Pradesh, NCT of Delhi and Puducherry. Applications for financial assistance up to ₹ 1.5 lakh are to be processed and sanctioned by the respective State Illness Fund. Applications for assistance beyond ₹ 1.50 lakh and also of those where State Illness Fund has not been set up are processed in this Department for release. In order to provide immediate financial assistance, to the extent of ₹ 1,00,000/- per case, to critically ill, poor patients who are living below poverty line and undergoing treatment, the Medical Superintendents of Dr. RML Hospital, Safdarjung Hospital, Smt. Sucheta Kriplani Hospital. All India Institute of Medical Sciences, New Delhi, PGIMER, Chandigarh, JIPMER, Pondicherry, NIMHANS, Bangaluru, CNCI, Kolkata, Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, RIMS, Imphal and NEIGRIHMS, Shillong have been provided with a revolving fund of Rs. 10-40 lakhs.

The revolving fund is replenished after its utilization. For cases requiring financial assistance above ₹ 1,00,000/- per case the applications are processed in the Department of Health and Family Welfare through a Technical Committee headed by Additional Director General (Senior most), DGHS before being considered for approval

by a duly constituted Managing Committee with the Minister for Health and Family Welfare as the Chairman. During the year 2008-09, financial assistance totaling ₹ 478.00 lakh was given directly to 259 patients under Rashtriya Arogya Nidhi (Central fund) and further, the revolving fund of amount ₹ 286.10 lakhs has also been given to the above Hospitals/Institutes. A provision of ₹ 700.00 lakh has been made during the current financial year 2009-10 i.e. till November 2009, a sum of ₹ 465.00 lakh has been released to 152 patients, and further, the revolving fund of amount ₹ 200.00 lakh has also been released to the above Institutes/Hospitals.

Strengthening of Emergency Facilities of State Hospitals Located on National Highways

The Ministry of Health and FW has been implementing a project for Upgradation and Strengthening of Emergency Trauma Care Facility in State Government Hospitals located on National Highways under the Scheme "Assistance for Capacity Building" with a view to provide immediate treatment to the victims of road traffic injury. Financial assistance was provided up to a maximum of ₹ 1.5 crore per hospital or actual requirement of the hospital whichever was less, during the 9th and 10th Five Year Plan periods. The total financial assistance of ₹ 154.43 crores for 112 trauma centres in 30 States/UTs was released.

The scheme was subsequently evaluated by the Ministry and certain deficiencies were observed like shortage of required manpower, inadequate funding for civil work etc. With this background, a revised new scheme at a total outlay of ₹ 732.75 crore has been approved for developing a network of trauma centres along the Golden Quadrilateral (North-South and East-West Corridors) of the National Highways in a scientific manner. The network of trauma care facilities along the corridors will bring down the morbidity and mortality on account of accidental trauma on the roads in India by observing the golden hour concept. The trauma care network has been so designed that no trauma victim has to be transported further than 50 kms as a designated trauma care centre would be available at every 100-150 kms. The project, therefore, comprises well-equipped life support ambulance at every 50 kms. on the national highways equipped with life support equipments and trained staff.

The scheme provides for 3-categories of trauma care centres, viz. L-III, L-II and L-I. The L-III centres would be available every 100-150 kms along the national highways, L-II trauma centres would be available every 300 kms and there would be L-I trauma centres in the States that would provide the highest level of definitive and comprehensive care of patients with complex injuries. The financial assistance has been substantially enhanced as compared to the earlier scheme. The details of the same are given below:

L-III = ₹ 4.8 crore

L-II = ₹ 9.65 crore

L-I = ₹ 16 crore

The funds for upgradation of hospitals to L-III and L-II levels would be provided from the above allocated funds while L-I trauma centre would be established in those institutions (13 in number) that are being upgraded under the Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) and six AIIMS like institutions.

NATIONAL ACADEMY OF MEDICAL SCIENCES (INDIA), NEW DELHI

The National Academy of Medical Sciences (NAMS), New Delhi was established in 1961 as a Non-Official body of Bio-Medical scientists with the object of promotion

and encouragement of merit in medical sciences. The fellowship of the Academy became a coveted hallmark of distinction accorded in recognition for outstanding achievements in sciences, education, services, etc. The Academy awards Fellowships to the most distinguished men of science. The Academy has also been implementing the Continuing Medical Education (CME) Programme since 1982. As on 25 June 2008, the NAMS has on its rolls 6 Honorary Fellows, 756 Fellows (FAMS), and 4203 Members.

PHARMACY COUNCIL OF INDIA

The Pharmacy Council of India is a statutory body constituted under the Pharmacy Act, 1948. It is responsible for the regulation of pharmacy education and practice of profession in the country for registration as a pharmacist. At present, there are 497 approved institutions imparting Diploma in Pharmacy to 29,958 students per annum and 276 approved institutions imparting Degree in Pharmacy to 15,815 students per annum. At present about 5.76 lakh pharmacists are registered with various State Pharmacy Councils.

INTEGRATED DISEASE SURVEILLANCE PROJECT (IDSP)

Background : The integrated Disease Surveillance Project (IDSP) was launched by the Ministry of Health and Family Welfare in November 2004. It is intended to detect early warning signals of impending outbreaks and help to initiate an effective response in a timely manner. Total Budget for the project from 2004-09 was given as ₹ 399.70 crore.

Objectives:

- To establish a decentralized state based surveillance system for communicable diseases to detect the early warning signals, so that timely and effective public health actions can be initiated in response to health challenges in the country at the district, state and national level.
- To improve the efficiency of the existing surveillance activities of disease control programmes and facilitate sharing of relevant information with the health administration, community and other stakeholders so as to detect disease trends over time and evaluate control strategies.

Project components :

- Integrating and decentralization of surveillance activities through establishment of surveillance units at centre, state and district level.
- Human Resource Developments - Training of State Surveillance Officers, District Surveillance Officers, Rapid Response Team, other medical and paramedical staff on principles of disease surveillance.
- Use of Information Communication Technology for collection, collation, compilation, analysis and dissemination of data.
- Strengthening of public health laboratories.

Data Management

Under IDSP, data is collected on weekly epidemic prone diseases (Monday-Sunday) basis. The information is collected on three specified reporting formats, namely "S" (suspected cases), "P" (presumptive cases) and "L" (Laboratory confirmed cases) filled

by Health Workers, Clinician and Clinical Laboratory staff. The weekly data gives the disease trends and occurrence of new disease.

Whenever there is a rising trend of illnesses in any area, it is investigated by the Medical Officers/Rapid Response Teams (RRT) to diagnose and control the outbreak. Data analysis and action are undertaken by respective units. Emphasis is laid on reporting of surveillance data from major hospitals both in public and private sector and also Infectious Disease hospitals. IDSP presently receives weekly disease surveillance data from 306 of 606 districts (51 per cent) of phase I, II and III states.

Outbreak Surveillance and Response

Central surveillance Unit, IDSP receives disease outbreak reports from the states/UTs on weekly basis. Even NIL weekly reporting is mandated and the compilation of disease outbreaks/alerts is done on weekly basis for sharing with the stakeholders and other higher officials including Prime Ministers Office, Health and Family Welfare Minister, Minister of State (HFW), Secretary (HandFW), DGHS (HandFW), Addl. Secretary and Mission director (NRHM), Addl. Secretary (GB) and Joint Secretary (RSS). On an average 10 to 12 outbreaks are reported to CSU weekly.

Contribution of IDSP in Influenza A H1N1

Community surveillance to detect clusters of influenza like illness is being done through IDSP. The Project acts as a focal point in States to look for and report clusters of ILI and pneumonia. Outbreak Monitoring Cell on 24x7 basis has been established at NCDC for monitoring the situation. Private Practitioners, Nursing homes and hospitals have been requested to report such events to IDSP Call Centre on 1075 (Toll free number). Labs have been identified for testing clinical samples at NCDC Delhi, NIV Pune and other labs in different regions of the country. States have been asked to strengthen the isolation facility at district level. Funds have been released to 18 states for conducting trainings; funds for other states are being released. State and District RRTs have been alerted to investigate and manage suspected outbreaks. During cluster containment, IDSP has a vital role in tracing all contacts and put them on home quarantine and provide chemoprophylaxis. Guidance issued to States on clinical management, infection control practices, laboratory support, Death summary format has been designed and distributed to states/ districts for reporting any death due to Influenza A H1N1. Epidemiological analysis of deaths is being carried out on a regular basis.

Media Scanning and Verification Cell

Media scanning is one of the important systems of surveillance in detecting the Early Warning Signals. With this background, media scanning and verification cell receives an average of 4-5 media alerts of unusual health events which are being detected and verified per week and for the month of September '09, 40 alerts were detected and verified.

Information and Communication Networks (ICT)

ICT plays an integral and most powerful role in implementing IDSP across the country. One of the important components of the project is data management, analysis and rapid communication in case of impending outbreaks.

Data Centre

National Informatics Centre (NIC) has established broadband connectivity at 760 out of 796 sites. The objective of Data Centre is online entry of data to central servers for speedy data transmission.

Training Centre

Training centre equipments have been installed at 332 out of 396 sites. State to district communication is possible by NICs E-Learning Portal (<http://e-learning.nic.in/lms>), which has facility in managing life virtual classrooms for training (State/Area specific discussion on disease surveillance activities), e-learning, interactive electronic discussion (Chat rooms, Boards, Mailing Lists) and reviewing and monitoring project related activities.

Video Conferencing

Indian Space Research Organization (ISRO) has installed 345 out of 400 EDUSAT/V-SAT sites. In States, Medical Colleges, Video conferencing (VC) has been used for discussion with SSOs/SRRT/DSOs/ DRRT on outbreak investigation, verification and documentation with expert panels, project review and monitoring, training of data managers and data entry operators on data reporting and analysis.

Call Centre

A 24X7 call centre has been established to receive disease alerts from anywhere in the country on a toll free number 1075 for verification and initiating appropriate actions of public health measure. Multiple language calling and answering capability has led to receiving toll free calls from across the country. The call centre also has a response mechanism for informing respective health officials at concerned districts for early detection and prompt action.

IDSP Portal

The IDSP portal is a one stop portal which has facilities for data entry, view reports, outbreak reporting data, analysis, training modules and resources related to disease surveillance. A total of 21 States have started reporting in the portal.

Strengthening of Laboratories

Fifty priority district laboratories are being focused for strengthening in the country for laboratory diagnosis of epidemic prone diseases. A referral laboratory network is being established in 7 priority states on a pilot basis to provide access to diagnostic facilities during outbreaks in the remaining districts of the state. 48 priority labs have been identified in 33 States/UT Comprehensive guidelines for the procurement of equipment for the priority district labs have been sent to 33 states. The process of procurement in 4 states has been completed (Rajasthan, Puducherry, Assam, Sikkim).

Guidelines and MoU for making state referral laboratory network firmed up. Sensitization meetings held at Karnataka and Tamil Nadu finalised for referral network plans. Guidelines were sent to other 5 states and draft plans received have to be finalised.

NCD Risk Factors survey

NCD Risk factor survey is done under this projects in a phased manner. NCD risk factor survey Phase I was done by ICMR. The risk factors to be studied are Height, Weight, Waist Circumference, Physical activity, Diet, Socio Demographic Profile, Fasting Plasma Glucose, Cholesterol, consumption of Alcohol and Smoking. The survey was taken up in 7 states i.e. Andhra Pradesh, Tamil Nadu, Kerala, Maharashtra, Madhya Pradesh, Uttarakhand and Mizoram in 2007-2008 and is completed. Final report surveyed in Phase I with minor modification to be done by ICMR as suggested

by World Bank. Further other states survey will be carried out by NCD cell of MOH and FW.

Urban Surveillance

Urban Surveillance is proposed for 4 metropolitan cities of Delhi, Mumbai, Chennai and Kolkata. In the cities of Mumbai, Kolkata and Chennai Urban Surveillance plans have been developed. Kolkata, Mumbai and Chennai have signed MOU and funds are released. Kolkata and Mumbai have begun the urban surveillance activities.

Community Based Surveillance

It is planned to strengthen community based surveillance through active involvement of community institutions and volunteers, utilizing the large number of community groups/institutions present in districts such as the Panchayati Raj Institutions, Village Health and Sanitation Committees, Mahila Mandals, Self Help Groups (SHG), Youth Clubs, Schools (Primary and Secondary), NGOs, Traditional/Private Health Care providers.

IDSP has started a pilot project for strengthening community based disease surveillance in 3 states (Maharashtra, Orissa and Karnataka). Dashamantapur (Koraput-Orissa), Similiguda (Koraput-Orissa), Akkalkuwa (Nandurbar-Maharashtra) and Taloda (Nandurbar-Maharashtra) have started community based surveillance activities.

Infectious Disease Hospital Surveillance Network

Seven Infectious Disease Hospitals, one each in four metros and Bangalore, Ahmedabad and Hyderabad have been given funds for strengthening reporting from ID Hospitals. EDUSAT network has been installed and recruitment is completed except in Bangalore. Mumbai, Chennai and Kolkata have started reporting. Delhi has received the funds and data reporting will be done shortly.

DENTAL COUNCIL OF INDIA

Dental Council of India is a statutory body established under the Dentists Act, 1948 with the prime objective of regulating dental education, profession and its ethics in the country. It periodically carries out inspections of dental institutions to ascertain the adequacy of teaching facilities. 243 Dental Colleges are functioning in the country with an annual intake capacity of about 18,450 students in the BDS course.

CHILD HEALTH PROGRAMME

The Reproductive and Child Health programme (RCH) II under the National Rural Health Mission (NRHM) comprehensively integrates interventions that improve child health and address factors contributing to infant and under-five mortality. Reduction of infant and child mortality has been an important tenet of the health policy of the Government of India and it has tried to address the issue right from the early stages of planned development. The National Population Policy (NPP) 2000, the National Health Policy 2002, the Eleventh Five Year Plan (2007-12) and National Rural Health Mission (NRHM - 2005-2012) have laid down the goals for child health.

Key Strategies under RCH II for New Born and Child Health

1. Increase coverage of skilled care at birth for newborns in conjunction with maternal care.
2. Implement, by 2010, a newborn and child health package of preventive, promotive and curative interventions using a comprehensive IMNCI approach.

3. Strengthen and augment existing services (care at birth/Essential newborn/ care, ARI and diarrhoea control) in area where IMNCI is yet to be implemented.
4. Implement the multilayer strategic plan for the UIP (Universal Immunization Programme).

Child Health Situation in India:

- Of the 9.7 million under-five deaths globally, 2.1 million are in India alone. Approximately 25 million births occur every year in India out of which approx. 1.57 million children die before one year of age and approx 1 million newborns die within one month of birth.
- 52 percent of under-five deaths continue to occur in the first month of life. 75 per cent of neonatal deaths occur in first week of life, which means that the proportion of U 5 deaths by neonatal causes is disproportionately high.
- 37 per cent of all infant deaths in India are concentrated in two states (Uttar Pradesh [UP] and Bihar).
- 70 per cent of all infant deaths in India are concentrated in eight states (Bihar, UP, Madhya Pradesh, Orissa, Rajasthan, Andhra Pradesh, Maharashtra and Gujarat).
- Regional disparities remain a concern, with the IMR varying greatly between rural and urban areas (61 and 37, respectively) and states (ranging from 72 in Madhya Pradesh to 12 in Manipur)
- The primary causes of neonatal deaths are :
 - sepsis,
 - low birth weight and
 - Asphyxia.
- The primary causes of child deaths are :
 - Pneumonia,
 - Diarrhoea and
 - In some states Malaria, Meningitis and Measles.

Situation Analysis:

- 38 per cent of newborns in the developing countries start breastfeeding within one hour of birth while only 25 per cent of mothers initiate breastfeeding within 1 hr of birth: the proportion has however increased significantly in all states in last two years.
- 46 per cent of children are exclusively breastfed for six months. While 53 per cent of children receive for 6-23 months initiated timely complementary foods.
- Only 21 per cent received appropriate complementary foods (minimum no. of times, minimum no. of food groups). Exclusive breast feeding rates remain low in virtually all the states.
- In India 43 per cent of children under age five are under weight. 8.3 million infants in India have low birth weight (less than 2500 grams).
- According to SRS 2007, Infant Mortality is highest in Madhya Pradesh (72),

and Orissa (71) and the lowest in Manipur (12), Goa (13) and Kerala (13) RGI, SRS (2007).

- According to NFHS III (2005-06) Infant mortality is highest in Uttar Pradesh (73) and lowest in Kerala and Goa (15).
- With respect to under-five mortality, Uttar Pradesh has the highest rate (96) and Kerala has the lowest rate (16).

Components of child health care include:

- Essential newborn care
- Immunisation
- Infant and young child feeding
- Vitamin A, Iron and Folic Acid supplementation
- Early detection and appropriate management of Acute Respiratory Infections, Diarrhoea and other infections.
- Integrated management of neonatal and childhood illnesses (IMNCI) and Pre-Service.
- Facility Based Newborn Care
- Home Based care of Newborns
- Management of children with malnutrition.

CHILD HEALTH STRATEGICS

Essential Newborn Care

As the majority of births in India still occur at home and 66 per cent of all deaths occur in the first month of life, it is essential to ensure that skilled health care is provided to babies at birth. Further appropriate referral health care must be made available and accessible at health facilities. Hence field level workers have to be trained in essential newborn care, i.e. care which every newborn needs, like initiation of breastfeeds within half an hour of birth, rooming in, keeping the baby warm, no bathing at birth and immunization. Since 23 per cent of neonatal mortality is at birth, asphyxia resuscitation at birth becomes important.

Infant and young child feeding

Promotion of early initiation of breast feeding (within one hour of delivery) and exclusive breast feeding till 6 months and timely complementary feeding with continued breast feeding is emphasized under infant and young child feeding. Early and exclusive breast feeding for the six months of age and timely complementary feeding with continued breastfeeding for 2 yrs is the single most preventive intervention for child survival.

Vitamin - A

The policy has been revised with the objective of decreasing the prevalence of Vitamin A deficiency to levels below 0.5 per cent, the strategy being implemented is:

- 1,00,000 IU dose of Vitamin A is being given at nine months.
- Vitamin A dose of 2,00,000 IU (after 9 months) at six monthly intervals up to five years of age.
- All cases of severe malnutrition to be given one additional dose of Vitamin A.

Iron and Folic Acid supplementation

To manage the widespread prevalence of anaemia in the country, the policy has been revised.

- Infants from the age of 6 months onwards up to the age of five years shall receive iron supplements in liquid formulation in doses of 20 mg elemental iron and 100 meg folic acid per day per child for 100 days in a year.
- Children 6-10 years of age shall receive iron in the dosage of 30 mg elemental iron and 250 meg folic acid for 100 days in a year.
- Children above this age group would receive iron supplements in the adult dose.

Management of Diarrhoea

In order to control diarrhoeal diseases the Government of India has adopted the WHO guidelines on Diarrhoea management.

- India is the first country in the world to introduce the low osmolarity Oral Rehydration Solution (ORS), as recommended by WHO for the management of diarrhoea.
- Zinc has been approved as an adjunct to ORS for the management of diarrhoea. Addition of Zinc would result in reduction of the number and severity of episodes and the duration of diarrhoea.
- New guidelines on management of diarrhoea have recently been modified.

Integrated Management of Neonatal and Childhood Illness and Pre Service IMNCI

- Integrated Management of Neonatal and Childhood Illness (IMNCI) strategy is one of the main interventions under the RCH II/NRHM. The strategy encompasses a range of interventions to prevent and manage the commonest major childhood illnesses which cause death, i.e. neonatal illnesses, Acute respiratory Infections, Diarrhoea, Measles, Malaria and Malnutrition. It focuses on preventive, promotive and curative aspects, i.e. it gives a holistic outlook to the programme. The objective is to implement IMNCI package at the level of household and Sub-centre (through ANMs), Primary health centres (through medical officers, nurse and LHVs), to provide comprehensive newborn and child health services to address major neonatal and childhood illnesses.
- Pre Service IMNCI has been accepted as an important strategy to scale up IMNCI by the Centre and is being included in the curriculum of Medical colleges of the country. This will help in providing the much required trained (IMNCI) manpower in the public and the private sector.

Facility Based New Born Care (FBNC)

- As more and more sick children are screened and detected at the peripheries through IMNCI and referred to the health facilities, care of sick newborn and child at health facilities (CHCs, FRUs, District Hospitals and Medical College Hospitals) assumes priority. Building up the capacity of the Medical Officer at these facilities to handle such cases thus becomes important. The FBNC is consistent with latest available scientific evidence and supports the IMNCI training materials for outpatient management of sick children. The manual complements standard comprehensive pediatric textbooks.
- In the districts not implementing IMNCI, the vertical programmes for control of

the commonest causes of mortality, i.e. diarrhoea and pneumonia, shall continue to be implemented. The incidence of diarrhoea is reduced by provision of safe drinking water, and diarrhoea cases are managed by Oral Rehydration Salt solution during diarrhoea to prevent dehydration. Pneumonia cases are managed by antibiotics.

Home Based Newborn Care

- Home based Newborn Care has been developed for the use of ASHAs in the states of Rajasthan, Bihar, Madhya Pradesh and Orissa. Uttar Pradesh has integrated this aspect with IMNCI for the training of ASHAs and ANMs and named it Comprehensive Child Survival Programme (CCSP) which has been initiated in 18 of its 70 districts.

Progress

- The Under-5 Mortality Rate is the probability (expressed as a rate per 1000 live births) of a child born in a specified year dying before reaching the age of five if subjected to current age specific mortality rates. Under Five Mortality Rate (U5MR) at national level has declined during the last decade. It has come down from 109 per thousand (NFHS I - 1992-93) to 74 per thousand during the period (NFHS III-2005-06).
- Infant mortality (the probability of a child dying before the first birthday) expressed as a rate per 1000 live births in a specified year has shown a continuous decline. It stood at 192 during 1971, 114 in the year 1980 and 55 in 2007. The decline in IMR has been noticed both for male and female during the period. However, the rate of decline is more pronounced in the case of male as compared to female. This implies that the government's child health programme is being successfully implemented.

Infant Mortality Rate (Per 1000 live births)

Year	Total
1980	114
1985	97
1990	80
1993	74
1996	72
2000	68
2003	60
2005	58
2006	57
2007	55

Source : Office of the Registrar General of India 2007

Policy Decisions

- Iron and Folic Acid supplementation guidelines updated to include children from 6 months to 60 months with the inclusion of 20 mg of iron and 100 meg of folic for 100 days. Children 6 -10 (30 mg of Iron and 250 meg of Folic acid) and Adolescents 11-18 yrs have been included for IFA supplementation.
- Vitamin A supplementation guidelines updated to include children up to five years (1,00,00 International Units (IU) for below one year old children and 2,00,00 I.U. for older children).
- Use of Zinc as an adjunct along with WHO new ORS to address high diarrhoeal morbidity and mortality among children.
- Diarrhoea Guidelines updated to include management of cholera out-break and use of ciprofloxin (antibiotic) for resistant cases.
- Acute Respiratory Infection Guidelines updated to address high Respiratory Infection and Pneumonia morbidity and mortality among children.
- De-worming guidelines formulated.

IMNCI

The Child survival strategy of IMNCI has been introduced in 297 district of the country and 227351 health persons have been trained.

Pre - Service IMNCI

IMNCI has been introduced in to the curriculum of 79 Medical colleges and some 4000 students have been trained in IMNCI.

FBNC

146 SNCU have been set up to address sick new born care at facilities.

HBNCC

HBNCC has been incorporated into the ASHA training and duties.

Nutritional Rehabilitation Centres

582 Nutritional Rehabilitation Centres have been established to address malnutrition among children.

New Initiatives

- Neonatal and Child Health Policy under process for greater focus.
- Facility based care for newborn and children and Integrated Management and childhood Illness (F-IMNCI) as an integrated package to take care of referrals and to enhance capacity of all health personnel at facilities as well as at community level to address sick newborn and sick child.
- Setting up Sick Newborn Care units at District Hospitals to cater to the referred sick newborns.
- Setting up Nutrition Rehabilitation Centres (NRCs) in states with large magnitude of the problem of malnutrition.
- Indian Public Health Standards (IPHS) updated to conform to the requirement of Child Health norms at facilities.
- School health progress with focus on health promoting schools and greater convergence between Ministries and department to ensure a healthy child and adolescent.

Janani Suraksha Yojana

JSY is a safe motherhood intervention under the National Rural Health Mission (NRHM) being implemented with the objective of reducing maternal and neo-natal mortality by promoting institutional delivery among the poor pregnant women. JSY is a 100 per cent centrally sponsored scheme and it integrates cash assistance with delivery and post-delivery care. The scheme focuses on the poor pregnant woman with special dispensation for states having low institutional delivery rates namely the States of Uttar Pradesh, Uttarakhand, Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh, Assam, Rajasthan, Orissa and Jammu and Kashmir. Each beneficiary registered under this Yojana should have a JSY card along with a MCH card. ASHA/AWW/ any other identified link worker under the overall supervision of the ANM and the MO, PHC should mandatorily prepare a micro-birth plan. This helps in monitoring antenatal check-ups, and the post delivery care.

Another key aspect is that the full potential of JSY in terms of provision of essential new born care and post partum family planning counselling is yet to be realised.

Several steps are being undertaken to strengthen JSY implementation and monitoring, including:

- a. Payment prior to discharge through bearer cheque.
- b. Monitoring of JSY/ verification of beneficiaries by officials at different levels.
- c. Public disclosure of beneficiaries at the facility, and setting up of grievance redressal mechanism for JSY.
- d. Two days stay after delivery to be promoted, and essential newborn care and post partum counselling to be focused upon in high volume facilities.
- e. Quality of deliveries at public health facilities to be monitored; private sector facilities accredited and monitored. By the end of 2007-08, 3154 private facilities across the country have been accredited to provide antenatal care and delivery services under JSY.
- f. Programmes for local awareness.

Central Govt. Health Scheme

The Central Govt. Health Scheme in India is comprehensive health care to the CGHS Beneficiaries. The Central Govt. Health Scheme is applicable to the following categories of people residing in CGHS covered cities :

- All Central Govt. Servants paid from Civil Estimates (other than those employed in Railway Services and those employed under Delhi Administration except members of Delhi Police Force).
- Pensioners drawing pension from Civil Estimates and their family members - (Pensioner residing in non-CGHS areas also may obtain CGHS Card from nearest CGHS covered City).
- Members of Parliament.
- Judges of Supreme Court of India.
- Ex-Members of Parliament.
- Employees and Pensioners of Autonomous Bodies covered under CGHS (Delhi).

- Ex-Governors and Ex-Vice Presidents
- Former Prime Ministers
- Former Judges of Supreme Court of India and High Courts.
- Freedom Fighters
- It provides service through following categories of systems :
 - Allopathic
 - Homeopathic
 - Indian System of Medicines e.g.
 - ❖ Ayurveda
 - ❖ Unani
 - ❖ Yoga
 - ❖ Sidha System

The main components of the Scheme are :

- The dispensary services including domiciliary care.
- F.W.andM.C.H. Services.
- Specialists consultation facilities both at dispensary, polyclinic and hospital level including X-Ray, ECG and Laboratory Examinations, Hospitalization.
- Organization for the purchase, storage, distribution and supply of medicines and other requirements.
- Health Education to beneficiaries.

The dispensary is the backbone of the Scheme. Instructions on these various matters have been issued from time to time for the guidance of the specialists and medical officers. With the rapid and continuous expansion of the Scheme, however, the situation has not only changed but problems have also arisen. The rapidly expanding staff have not approved practices, procedures and instructions in regard to their various duties and responsibilities.

FAMILY PLANNING PROGRAMME

In 1952, India launched the world's first national programme emphasizing family planning to the extent necessary for reducing birth rates "to stabilize the population at a level consistent with the requirement of national economy." Since then, the family planning programme has evolved and the programme is currently being repositioned to not only achieve population stabilization but also to promote reproductive health and reduce maternal, infant, child mortality and morbidity. The objectives, strategies and activities of the Family Planning division are designed and operated towards achieving the family welfare goals and objectives stated in various policy documents (NPP: National Population Policy 2000, NHP: National Health Policy 2002, and NRHM: National Rural Health Mission) and to honour the commitments of the Government of India (including ICPD: International Conference on Population and Development, MDG: Millennium Development Goals and others).

Current Family Planning Efforts

The Family Planning (FP) division is involved in the development, implementation and monitoring of strategic interventions for fulfilling twin objectives of population stabilization and promoting reproductive health within the wider context of

sustainable development. The interventions, activities and performance in the arena of family planning over the year 2009-10 are as follows :

Contraceptive Services Under the National Family Welfare Programme

The public sector provides a wide range of contraceptive services for limiting and spacing of births at various levels of health. The salient features of the family planning services are as follows :

- Counselling, access to and provision of good quality services and follow-up care are emphasized in all services.
- GOI is promoting 'Fixed Day Static Services' (FDS) approach in sterilization services within the public health system with the aim of increasing access to sterilization services. States are being provided technical and financial support for the development of human resources and upgradation of health facilities for operationalisation of FDS.
- In states with high un-met need for limiting methods, sterilization camps are continued till the time FDS is implemented effectively.
- Revised compensation scheme for sterilization acceptors to compensate the wage loss is continued in all the states.
- 'National Family Planning Insurance Scheme' (NFPIS) covers service providers in both public and accredited private facilities.
- 'Quality Assurance Committees' (QACs) have been constituted in all the states and districts.
- The division is repositioning IUD as short and long term spacing method.
- Regional contraceptive updates for service providers in all states, with special focus on High Focus States (HFS).
- Emergency Contraception Pills (ECPs) are effective for preventing conception due to unplanned/unprotected sex. Guidelines have been developed and disseminated regarding its use.

Increasing Male Participation in Planned Parenthood, including 'No Scalpel Vasectomy' (NSV)

- Increasing male participation in 'Planned parenthood' is one of the major strategic themes of NPP-2000.
- Promotion of NSV acceptance is one of the most important and visible component of increasing male participation in RCH towards addressing the gender equity issues.
- With the aim to bring men to the forefront in population and reproductive health programmes, special budgetary provisions have been made in the tenth plan under Male Participation.
- The No Scalpel Vasectomy (NSV), a modified male sterilization technique, was introduced in 1997 in the National Family Welfare Programme as a simple and safe technique with very little chance of complications compared to female sterilization.
- Camp approach for male sterilization was adopted initially to re-popularize male sterilization method. Based on the experiential lessons from male sterilization camps in states like Madhya Pradesh, Andhra Pradesh, Punjab and Uttar Pradesh, a strategy on advocacy and community mobilization for

increasing NSV acceptance through camps was introduced in the family welfare programme in 2005 and guidelines were disseminated to all the state/UT Governments.

- Simultaneously, human resource development in NSV was personalized with a three pronged strategy for training surgical faculty from Medical colleges, district NSV trainers and service providers to increase the pool of NSV service providers and operationalize FDS in male sterilization services.

Promotion of IUDs as a Short and Long Term Spacing Method

GOI introduced Copper T 380 A with an effectiveness period of 10 years in 2002 to promote the use of spacing method, both for short term and long term. In 2006, GOI launched "Repositioning IUCD in National Family Welfare Programme" (guidelines can be downloaded at http://mohfw.nic.in/NRHM/FP/Repositioning_IUCD.pdf) with an objective to improve the method mix in contraceptive services and has adopted diverse strategies including advocacy of IUCD at various levels, community mobilization for IUCD; capacity building of public health system staff starting from ANMs to provide quality IUCD services and intensive IEC activities to dispel myths about IUCD.

PROHIBITION OF PRE-CONCEPTION AND PRE-NATAL SEX DETERMINATION

In order to check female foeticide, the Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, 1994 was enacted and brought into operation from 1 January 1996. The Act prohibits determination and disclosure of the sex of the foetus. It also prohibits any advertisements relating to pre-natal determination of sex. Punishments are prescribed for contravention of any of its provisions, like imprisonment up to 5 years and fine up to ₹1,00,000/- in addition to cancellation of the registration/licence in the case of medical professionals/diagnostic centres, clinics, etc.

The Act and the Rules framed thereunder have been amended with effect from 14 February 2003 to ban selection of sex before or after conception and to remove difficulties in the implementation of the Act keeping in view certain directions of the Supreme Court of India.

Appropriate Authorities at the District level implement the Act. A National Inspection and Monitoring Committee has also been constituted at the Centre to take stock of the ground realities by field visits to the problem States. A National Support and Monitoring Cell (NSMC) has been constituted to strengthen implementation of the Act in the country.

A national level need on 'Save the Girl Child' was organized at New Delhi on 28 April 2008 to bring to the centre stage the magnitude of the problem of female foeticide and the resultant decline in Child Sex Ratio and its debilitating impact on the society. The meet was inaugurated by Dr. Manmohan Singh, Prime Minister of India.

On the same occasion, a Toll Free Telephone, i.e. 1800 110 500, and website, *pndt.gov.in* were launched to facilitate the public to access PNDT related information and to lodge complaint against any violators of the provisions of the PC and PNDT Act, 1994. The website incorporates the facility for the clinics across the country to file 'Form-F' online and uploading and retrieval of data from district level to the national level.

In order to make the Pre-Conception and Pre-Natal Diagnostic Techniques Act and the rules framed thereunder even more effective and stringent, the Central Government is considering to further amend the Act and the Rule.

Safe Abortion Services/ Medical termination of Pregnancy (MTP)

Provision of Safe Abortion Services in accordance with the MTP Act is an important component of the ongoing RCH Programme Phase II and it is one of the means of reducing maternal mortality. As per the latest Survey Report of the office of RGI (RGI-SRS 2006), 8 per cent of maternal deaths are due to unsafe abortions. For expanding and strengthening safe abortion services under the RCH Programme, the MTP Act 1971, Rules and Regulations have been amended in 2002-03 for delegation of powers to recognize MTP centres at the district level and also provide for specific punitive measures for performing MTPs by unqualified persons and in places not approved by the government. Provision of MTP services at 24 X 7 PHCs, CHCs and FRUs is being strengthened by training of medical manpower in techniques of MTP by the States.

Universal Immunization Programme

Immunization Programme is one of the key interventions for protection of children from life threatening conditions, which are preventable. Immunization programme in India was introduced in 1978 as Expanded Programme of Immunization. This gained momentum in 1985 as Universal Immunization Programme (UIP) and implemented in phased manner to cover all districts in the country by 1989-90. UIP became a part of Child Survival and Safe Motherhood Programme in 1992. Since, 1997, immunization activities have been an important component of National Reproductive and Child Health Programme. Immunization is one of the key areas under National Rural Health Mission (NRHM) launched in 2005.

Under the Universal Immunization Programme Government of India is providing vaccination to prevent six vaccine preventable diseases, i.e. Diphtheria, Pertussis, Tetanus, Polio, Measles and severe form of Childhood Tuberculosis. The vaccination schedule is as under :

- BCG (Bacillus Calmette-Guerin)—at Birth (upto 1 year if not given earlier).
- DPT (Diphtheria, Pertussis and Tetanus Toxoid).
- Primary three doses at 6, 10, 14 weeks and two booster doses at 16-24 months and 5 Years of age.
- OPV (Polio) - 6, 10, 14 weeks and at 16-24 months of age and birth dose for institutional delivery.
- Measles - 9-12 months of age.
- TT (Tetanus Toxoid)—10 years and 16 years of age.
- TT - for pregnant woman two doses or one dose if previously vaccinated within 3 years. Later on, Hepatitis B and JE vaccines were added in select areas in the Universal immunization Programme. All the States/UTs are asked to prepare their own State programme implementation Plan (PIP) for Immunization as part 'C' of NRHM PIP from the year 2005-06 to address specific needs.

Status of Universal Immunization Programme

Achievement in terms of immunization coverage is improving over the years; however, there is further need for improvement especially in DPT3 and OPV3 coverage and reducing drop outs. To strengthen routine immunization, Government of India under NRHM has launched newer initiatives as part of the State Programme Implementation Plan (PIP); some initiatives are :

- To ensure injection safety, Auto Disable (AD) Syringe introduced throughout the country.
- Support for alternate vaccine delivery from PHC to Sub-Centres and Outreach Sessions.
- Provision for deploying additional manpower to carry out immunization activities in urban slums and underserved areas where services are deficient.
- Mobility support to State Immunization Officer, District Immunization Officer and other Officer as per State Plan for monitoring and supportive supervision.
- Review meeting at the State level with the districts on quarterly basis.
- Training of ANM, Cold Chain Handlers, Mid Level Managers, Refrigerator Mechanics etc.
- Support for mobilization of children to immunization session sites by Accredited Social Health Activist (ASHA), Women Self Help Groups etc.
- One Computer Assistant to State Head Quarter and each District.
- Printing of Immunization Cards and other tools like tickler bag, tally sheet, monitoring chart, Cold Chain temperature monitoring chart, vaccine inventory charts etc.
- Integration of Routine Immunization Monitoring System (RIMS) with HMIS.
- Support for other specific issues.

In addition the central support will continue under Immunization as strengthening of cold chain system in the State including cold chain maintenance, Supply of vaccines, and Supply of vaccine van at the rate of one per district.

INDIAN NURSING COUNCIL

The Indian Nursing Council is a statutory body constituted under the Indian Nursing Council Act, 1947. The Council is responsible for regulation and maintenance of uniform standards of training for nurses, midwives, ANMs and Lady Health Visitors in India. The Council prescribes the syllabi and regulations for various Nursing courses. At present 1820 GNM schools, 491 ANM schools, 1070 colleges of nursing for conducting graduation programmes and 191 colleges of nursing for conducting post graduate courses in nursing are functioning in the country. On an average 25-30 thousand nurses and 10-12 thousand ANMs qualify every year. So far 10,43,363 Nurses and 5,57,022 ANMs have been registered with various State Nursing Councils up to 31 December 2008.

PULSE POLIO IMMUNIZATION

In pursuance of the World Health Assembly resolution of 1988, in addition to administration of routine OPV through the Universal Immunization Programme, the Pulse Polio Immunization (PPI) Programme was launched in 1995-96 to cover all children below the age of 3 years. In order to accelerate the pace of polio eradication, the target age group was increased from 1996-97 to all children under the age of 5 years. From 1999-2000 house to house vaccination of missed children was also

introduced to vaccinate children missed during the fixed booth based vaccination of children. This resulted in increasing coverage of 2-3 crore additional children.

Since the PPI initiative in 1995, significant success has been achieved in reducing the number of polio cases in the country and total cases decline gradually. Of the 3 types of polio causing viruses, type 2 has already been eradicated in 1999, currently type 1 virus is in circulation and is limited mainly to Uttar Pradesh and Bihar and it is because of uniquely challenging conditions like poor environmental sanitation, high population density which makes them the most challenging places to eradicate polio.

Nutrition

The Nutrition Cell in the Directorate General of Health Services provides technical advice in all matters related to policy making, programme implementation, monitoring and evaluation, training content for different levels of medical and para medical workers. It takes up technical scrutiny of standards and labels for foods, proposals, project evaluation, review of research projects, etc.

The cell has been making efforts in creating awareness regarding prevention of micronutrient deficiency disorders, diet related chronic disorders and promotion of healthy lifestyle through dissemination of various types of IEC material. So far, posters and pamphlets on the above-mentioned issues, video spots on IDD were developed. Production of video film on Undernutrition and Promotion of Healthy Life Styles and reviewing and updating the publication entitled 'Guidelines for Standardized Hospital Diets' under active process.

The Cell organizes meetings and workshops (National and Regional levels workshops) on core issues related to nutrition, i.e. micronutrient, hospital diets, fluorosis, diet related chronic disorders and promotion of healthy lifestyle, etc.

In order to address the problem of fluorosis in the country a new initiative, i.e. "National Programme for Prevention and Control of Fluorosis (NPPCF)" has been approved for implementation in 100 districts with financial allocation of ₹ 68 crore during the 11th Five Year plan. The 1st phase of the programme will be launched and implemented in the current financial year in one district each of five States.

The Nutrition Cell also keeps State Nutrition Division, located in 17 States/UTs, updated on developments in the field of nutrition, micronutrient deficiencies, diet related chronic non-communicable disease, junk/fast foods etc.

FAMILY WELFARE LINKED HEALTH INSURANCE SCHEME

As a measure to encourage people to adopt permanent method of Family Planning, this Ministry has been implementing a Centrally Sponsored Scheme since 1981 to compensate the acceptors of sterilization for the loss of wages for the day on which he/she attended the medical facility for undergoing sterilization.

Apart from providing for cash compensation to the acceptor of sterilization some States/UTs were apportioning some amount for creating a miscellaneous purpose fund utilized for payment of ex-gratia to the acceptor of sterilization or his/her nominee in the unlikely event of his/her death or incapacitation or for treatment of post operative complications attributable to the procedure of sterilization, as under:-

- i) Rs. 50,000/- per case of death
- ii) Rs. 30,000/- per case of incapacitation.
- iii) Rs. 20,000/- per case of cost of treatment of serious post operation complication.

Any liability in excess of the above limit was being borne by the State/UT/NGO/Voluntary Organization concerned from their own resources.

The Supreme Court of India in its Order dated 1.3.2005 in Civil Writ Petition No. 209/2003 (Ramakant Rai V/s Union of India) has, *inter alia*, directed the Union of India and States/UTs for ensuring enforcement of Union Government's Guidelines for conducting sterilization procedures and norms for bringing out uniformity with regard to sterilization procedures by :

- a) Creation of panel of Doctors/health facilities for conducting sterilization procedures and laying down of criteria for empanelment of doctors for conducting sterilization procedures.
 - b) Laying down of checklist to be followed by every doctor before carrying out sterilization procedure.
 - c) Laying down of uniform proforma for obtaining of consent of person undergoing sterilization.
 - d) Setting up of Quality Assurance Committee for ensuring enforcement of pre and postoperative guidelines regarding sterilization procedures.
 - e) Bringing into effect an insurance policy uniformly in all States for acceptors of sterilizations etc.
- With a view to doing away with the complicated process of payment of ex-gratia to the acceptors of sterilisation for treatment of post operative complications, incapacitation or death attributable to the procedure of sterilization, the Family Planning Insurance Scheme was introduced w.e.f. 29 November 2005 for a period of one year to take care of the cases of failure of sterilisation, medical complications or death resulting from sterilisation and also provide indemnity cover to the doctor/health facility performing sterilisation procedure, with Oriental Insurance Co. and was subsequently renewed for one more year from 29 November 2006 to 31 December 2007 with OIC.

The benefits extended under the scheme were as follows:-

Policy period 29.11.2005 to 28.11.2006 (First Year)

- | | |
|--|--------------|
| a) Death due to sterilization in hospital: | ₹ 1,00,000/- |
| b) Death due to sterilization within 30 days of discharge from hospital | ₹ 30,000/- |
| c) Failure of sterilization (including first instance of conception after sterilization) | ₹ 20,000/- |
| d) Expenses for treatment of medical complications due to | |

	sterilization operation (within 60 days of operations)	₹ 20,000/-
e)	Indemnity Insurance per Doctor/facility but not more than 4 cases in a year	Upto Rs. 2 lakh per claim

* Total liability of the insurance Company shall not exceed ₹ 9 crore in a year under each section.

Benefits after renewal of the scheme w.e.f. 29 November 2006 to 31 December 2007 (2nd Year)

Section	Coverage	Limits
I	IA Death following sterilization in hospital	₹ 2 lakh
	IB Death following sterilization within 8-30 days from the date of discharge from the hospital	₹ 50,000/-
	IC Failure of Sterilization	₹ 25,000/-
	ID Cost of treatment upto 60 days arising out of complication from the date of discharge.	Actual not exceeding ₹ 25,000/-
II	Indemnity Insurance per Doctor/facility but not more than 4 cases in a year	Upto ₹ 2 lakh per claim

Total liability of the insurance Company shall not exceed Rs. 9. crores in a year under each section.

- Renewal for third/Fourth year 1 January 2008 to 1 February 2008: Continuation/renewal of the Scheme/Policy for the period 1 January 2008 to 31 December 2009 has been done with ICICI with the increase in the amount for sterilization failure from ₹ 25,000 to ₹ 30,000 and other benefits to the acceptors and indemnity cover to the doctors remaining the same as in the previous year policy, i.e. table as above.
- The scheme is applicable to all acceptors undergoing /undergone sterilization operation irrespective of BPL/APL status.
- Expenditure incurred by GOI on Family Planning Insurance Scheme and performance regarding reporting/settlement of claims is placed as follows:

Year	Insurer	Estimated Number	Premium per person without ST	Total Premium without ST	Total Premium with ST
29/11/05 to 28/11/06	OIC*	50 lakhs	₹ 15	₹ 75,00,000	₹ 8,26,50,000
29/11/06 to 31/12/07	OIC **	45 lakhs	₹ 9.60	₹ 4,32,00,000 after adjustment of a refund of ₹ 2,46,95,000	₹ 8,26,30,000
1/1/08 to 31/12/08	ICICI	50 lakhs	₹ 5.65	₹ 2,82,50,000	₹ 3,17,41,700
1/1/09 to 31/12/09	ICICI	45 lakhs	Rs. 9.75	₹ 4,38,75,000	₹ 4,92,,97,951

The premium paid by GOI is based on the expected number of sterilizations subject to actual reporting sterilizations.

- * For the period 29 November 2005 to 28 November 2006, the premium was paid to OIC based on expected 50 lakh sterilizations.

However, the premium paid was adjusted in the subsequent year (29 November 06 - 31 December 07) due to less number of sterilization i.e. 35 lakhs.

- ** In the second year based on 35 lakh acceptors a refund of ₹ 2,46,95,000 was allowed which was adjusted with actual premium of ₹ 4,32,00,000 and ₹ 2,36,92,680 was paid for the period 29.11.2006 to 31.12.2007.

Premium paid to ICICI for the period 1.1.2008 to 31.12.2008 was based on expected 50 lakh sterilizations and for the period 1.1.2009 to 31.12.2009 was based on expected 45 lakh sterilizations.

Details of premium paid and Performance regarding reporting /settlement of claims upto 30 September 2009:

S. N.	Insurance Co.	Period	Reported	Status of Claims			
				Paid/ Amount	Rejected	Closed	Out-standing
1	OIC	29.11.05 to 31.12.07	3409	1878 ₹ 5.5 cr.	623 ₹ 1.45 cr.	381 ₹ 1.25 cr.	527
Status of claims upto 30 June 2009 under policy 2008 and 2009							
2.	ICICI	1.1.2008 to 31.12.08	4128	2232 ₹ 8.34 cr.	1710 ₹ 5.17 cr.	-	186 ₹ 0.57 cr.
3.	ICICI	1.1.2009	1570	607 ₹ 2.32 cr.	534 ₹ 1.85 cr.	-	432 ₹ 1.71 cr.

- Encouraged with the responses, GOI replicated the scheme in whole of the country in phased manner covering total 1.85 crore BPL families, i.e. 6.55 crore BPL population.
- Now scheme is covering Heart, Lung, Liver, Pancreas, Renal diseases, Neuro-Surgery, Pediatric Congenital Malformations, burns including Post Burn Contracture Surgeries for Functional Improvement, Prostheses (Artificial limbs), Cancer treatment (Surgery, Chemo Therapy, Radio Therapy) and Poly trauma covering 330 interventions.
- Use of both public and private health facility. Health Melas being the major areas of thrust under this scheme are organized by the net-worked hospitals for identification of patients.

Rajeev Aarogysri Health Insurance Scheme - Andhra Pradesh

Government of Andhra Pradesh introduced a health insurance scheme for BPL families through Rajeev Aarogyasri Trust, a body constituted by the state in 3 districts w.e.f. 1 April 2007 on pilot basis for 6 systems covering mostly 163 surgical interventions through insurance company with public private partnership of health providers. Sum Insured is ₹ 1.50 lakh with a buffer of ₹ 50,000 per family.

Din Dayal Antyoday Upchar Yojana : Madhya Pradesh

The Government of Madhya Pradesh is providing free treatment and investigation facility on hospitalization without any exclusion up to a limit of ₹ 20,000/- per

family per annum in all government health facilities to the under privileged section of the society i.e. 57 lakh BPL families and 10 lakh other families under Din Dayal Antyoday Upchar Yojana from 25 September 2004. The benefit is provided for all diseases and conditions including delivery, without any exclusion. The Department of Public Health and Family Welfare, Government of MP is the Implementing Agency for the Scheme in the state. The average benefit availed is under ₹ 1,000/- per family per annum.

Yeshasvani Co-Operative Farmers Health Care Scheme : Karnataka

Yeshasvani Health Care Scheme provides cost effective quality health care facilities to the Cooperative farmers spread across the state of Karnataka by becoming a member of a scheme. The scheme operates under the aegis of the Karnataka State Co-operative Department through a trust named Yeshasvani Trust and implemented through Family Health Plan Ltd. Beneficiaries are offered cashless treatment for 1600 Surgical procedures at a tariff prenegotiated with participating hospitals. Coverage is limited to ₹ 2.00 lakh per annum per individual. Sub limit of ₹ 1.00 lakh per surgery per individual with category limit. Coverage for Sterilisation of defined medical emergencies and maternity benefits are also covered. Contribution from each member is ₹ 120 per annum. State government is also providing the financial support to the scheme.

Mukhya Mantri Raksha Kosh for BPL Population : Rajasthan

Government of Rajasthan has launched the Mukhya Mantri Jeevan Raksha Kosh with effect from 1 January 2009 and is being implemented in all public health institutions of Rajasthan to provide free in-patient care and out-patient care to BPL families. BPL card holder with get cashless health care facilities in Medical Colleges, District hospitals and CHCs of the district for inpatient care for any ailment and OPD care. Further, if high end care facility not available in the state for such ailment, they shall be sent out of the state to AIIMS, New Delhi or PGI, Chandigarh for such treatment.

RASHTRIYA SWASTHYA BIMA YOJANA

Rashtriya Swasthya Bima Yojana (RSBY), a scheme of Ministry of Labour was launched on 1 October 2007 and rolled out from 1 April 2008 in a phased manner. The scheme is implemented in most of the states, initially on pilot basis. However, the Government has decided to take up all the districts in 2009-10 itself.

- Maximum contribution is ₹ 725 per family (75 per cent. 25 per cent) [Central: State share]. The beneficiary would pay ₹ 30/- per annum as registration/renewal fee.
- The main objective of this scheme is to provide health insurance cover to the below poverty line (BPL) workers and their families in the unorganized sector and to improve access of BPL families to quality medical care for treatment of diseases involving hospitalization and surgery through an identified network of health care providers as cashless.
- The scheme provides the coverage for meeting expenses of primary inpatient hospitalization for medical and/or surgical procedures including maternity benefit and newborn child, to the BPL families up to ₹ 30,000 per family.
- It covers all pre-existing conditions/diseases from day one with a provision for transport allowance.

- The main object of this scheme is to provide the health care facility as cashless. Reimbursement to hospitals shall be based on the electronic transaction data received from hospitals.
- Unit of enrolment is family up to a unit of five members. This would comprise the Household Head, spouse, and up to three dependants. The dependants would include such children and/or parents of the head of the family as are listed as part of the family in the BPL data base. The enrolment of BPL beneficiaries based on the soft data provided by the State Government/Nodal Agency and issue Smart card as per Central Government specifications.
- The scheme has 725 identified common surgical packages apart from medical procedures. In addition to the package list other procedures are also covered. This covers entire cost of treatment of the patient from date of reporting to his discharge from hospital and 5 days after discharge and any complication while in hospital, making the transaction truly cashless to the patient.
- Fixing of treatment protocol and costs, treatment authorization to keep the administering at the lowest and making full use of the resources available in the Government/Private health systems.
- For effective operation of the scheme, partnership is envisaged between the Insurance Company, public and the private sector hospitals and the State agencies.
- As on 30 June 2009 scheme has been rolled out in 120 districts of 18 States on various dates in 2008-2009. Total 60,59,599 family smart cards have been issued covering 3,07, 97,995 members.

NATIONAL COMMISSION ON POPULATION

The National Commission on Population was constituted in May 2000 to review, monitor and give direction for the implementation of the National Population Policy (NPP), 2000 with a view to meeting the goals set out in the Policy, to promote inter-sectoral coordination, involve the civil society in planning and implementation, facilitate initiatives to improve performance in the demographically weaker States in the country and to explore the possibilities of international cooperation in support of the goals set out the National Population Policy. The first meeting of the Commission was held on 22 July 2000 and last on 23 July 2005. In the first meeting of the Commission the then Prime Minister had announced the formation of an Empowered Action Group within the Ministry of Health and Family Welfare for paying focused attention to States with deficient national socio-demographic indices and establishment of National Population stabilization Fund to provide a window for canalizing monies from national voluntary sources to specific aid projects designed to contribute to population stabilization. The National Commission of Population was reconstituted on 11 April 2005 with 40 members under the Chairmanship of the Prime Minister. Minister of Health and Family Welfare and the Deputy Chairmen of the Planning Commission are Vice Chairman of the Commission. The present membership also includes the Chief Ministers of the States of Uttar Pradesh, Madhya Pradesh, Rajasthan, Bihar, Jharkhand, Kerala and Tamil Nadu.

DIRECTIONS AND ADMINISTRATION

Under this scheme, norms for contingent expenditure for District and State Family Welfare Bureau, Rural Family Welfare Centres and Vehicle with POL charges had been revised after a gap of more than thirty years. Flexibility had also been allowed to all States to review existing staff position and to abolish posts that have become irrelevant and to create the posts, which are utmost necessary, within the grant available from the Government of India for this purpose. Releases to State/UTs are made as per audited expenditure for the respective period of previous financial years.

STERILIZATION AND IUD INSERTION (COMPENSATION SCHEME)

Since the compensation Scheme has been put under flexible pool of RCH.II. no specific B.E. was made under separate head for this scheme for releases to States/UTs for the year 2007-08. However, with further revision in the compensation package to acceptors of sterilization with particular boost to male participation in family planning, i.e. Vasectomy from existing ₹ 800 to ₹ 1500/- and tubectomy from ₹ 800/- to ₹ 1000 in public facilities and to ₹ 1500/- for both Vasectomy and tubectomy in accredited private health facilities to all categories in High focus States and BPL/SC/ST in Non High focus States.

MONITORING AND EVALUATION

Monitoring and Evaluation of various programmes launched by Ministry of Health and Family Welfare with a view to attempting appropriate midcourse corrections is regularly done. Ministry is implementing the Phase II of the Reproductive Child Health (RCH which is a crucial component of the National Rural Health Mission (NRHM)). The monitoring of the progress of implementation of the programme is not only essential but integral to evaluate the impact of the programmes. Monitoring and Evaluation is an effective management and quality assessment tool. The focus of monitoring is on processes and quality of services rendered under RCH-II/NRHM. The main components of MIS Scheme include MIS-Performance; Community monitoring; Quality Assurance; Triangulation of MandE; Concurrent Evaluation; E-governance; Training etc.

The details of the activities undertaken by the division are as follows:

- **HMIS:** For capturing information on the service statistics from the peripheral institutions, an exercise was undertaken to rationalise the data capturing format by removing redundant information, reducing the number of forms and focussed on facility based reporting. The revised forms were finalised in September 2008 and disseminated to the States. A web based Health MIS (HMIS) Portal was launched in October 2008 to facilitate data capturing at the District level. The National Health System Resource Centre (NHSRC) was involved in training of State and District officials on the new HMIS system. The HMIS Portal has led to faster flow of information from the district level and consolidation of Reports at the State and National level. The Portal captures both physical and financial performance under NRHM from the districts. Around 95 per cent of the Districts have already entered data for the fiscal year 2008-09 and the NRHM related reports would be brought out through this Portal. The Bulletin on Rural Health Statistics (RHS) for 2009 and Family Welfare statistics In India 2009 will be brought out based on the Portal data. After stabilisation of the system in terms of data etc. the web based application will be further expanded to capture data from the facility level and incorporating GIS initiatives in the next phase.

- **Surveys:** The Ministry coordinated the activities of the National Family Health Survey (NFHS) District Level Household Survey (DLHS) for assessing the impact of the health programmes and generating various health related indicators at the National, State/District level. National reports of NFHS-3 were released in September 2007. State and District Fact Sheets for the results of the DLHS-3 have been released during 2008 and hosted on the Health MIS Portal for use by the health officials and other stakeholders for improving and realigning the health interventions. In addition an Annual Health Survey is also being planned for preparing a District Health Profile of the high focused States to yield vital data rates and indicators at the district level annually. The expenditure Finance Committee (EFC) has approved the proposal. 108 posts have already been created in the office of RGI for conducting the survey. Field work is likely to start in 2010.
- **Quality Assurance :** Quality of health care is an integral component of the NRHM and a pilot study was undertaken in six States, viz. UP, Uttarakhand, West Bengal, Assam, Maharashtra and Karnataka. The pilot study involved deploying the quality assurance tools to a district and laying down the protocols for ensuring quality of services in the facilities and institutionalising mechanisms for taking corrective action. As such the QA process is highly structured and includes basics like gap analysis, prioritisation of actions, development of standard protocols and implementation of specific strategies like - patients charter, NABH, Licensing, accreditation etc. These tools were shared with all the States and based on the results of the pilot study, several States like Assam, Jharkhand, Rajasthan, Uttar Pradesh, Uttarakhand and West Bengal have decided to initiate the quality assurance protocols in several districts. It is expected that the outcome of this exercise would snowball into a State-wide exercise where not only the quantum but also the quality of health services is improved. Efforts are on to integrate the Quality Assurance process as a part of the existing Quality Assurance Committees at the District level.
- **Evaluation Activities:** One of the strong pillars of NRHM is to involve the community and NGOs in partnership for evaluation of the NRHM as an external agency. Thus while the Advisory Group on community Action (AGCA) is NRHM, the PRCs are also currently involved in study on rapid appraisal of NRHM.

POPULATION RESEARCH CENTRES (PRC) SCHEME

The Government of India has created 18 Population Research Centres (PRCs) in 12 Universities and 6 institutions of repute (first set of PRCs in 1958) gradually in a phased manner to achieve the following objectives :

- i. To undertake research projects relating to Family Planning including Family Planning, communication, action and research;
- ii. Demographic research;
- iii) Biological studies and qualitative aspect of population control;
- iv. To gainfully utilize the feed back from these Research Studies for plan formulation, Strategies and modifications of on going Schemes. PRCs are functioning under the supervision and direction of Statistics Division, Department of Health and Family Welfare, Ministry of Health and Family Welfare. Activities of PRCs are constantly monitored through regular periodical reports. Government of India provides 100 per cent financial assistance in the form of

grants-in-aid on year-to-year basis towards salaries of staff, books and journals, stationery, vehicle for field surveys, other infrastructure equipment and research studies.

NATIONAL BOARD OF EXAMINATIONS

The National Board of Examinations was established in 1975 on the basis of the Report of a Working Group set up by the Government of India. The National Board functioned as a wing of the National Academy of Medical Sciences from 1975 to 1982 and the Government of India, after a review, took a policy decision to make it an independent autonomous body with effect from 1 March 1982 under the Ministry of Health and Family Welfare. The Board conducts examination in 58 specialties and nine Dental specialties and has accredited more than 550 institutions/hospitals in public and private including corporate sector hospitals all over the country for the purpose of training of candidates in various specialties to take the Board's examinations.

During the year 2008-2009, the committee recommended accreditation to 152 fresh departments of various hospitals accounting for an annual intake capacity of 327 students in different specialties. In addition 528 specialties of various accredited institutions/hospitals were given renewal for 851 seats for a further period of three years.

The NBE is the only examining body of its kind in the country in the field of medical sciences. Continuing evaluation of quality and validity of the measurement mechanism and standards of examinations by constant interaction with experts in various disciplines of modern medicine and allied specialties are among its important activities. The diploma qualifications awarded by the NBE have been equated with postgraduate degree and postdoctoral level qualifications of universities by the Govt. of India, M/o Health and FW.

The holders of Board's qualifications awarded after an examination are eligible to be considered for specialist's posts in any hospital and teaching institutions. The Govt. of India, after taking into account the expertise and experience gained by the Board in the conduct of fair examinations entrusted the conduct of Screening Test for Foreign Medical Graduates from 2002 onwards.

HEALTH MINISTER'S DISCRETIONARY GRANTS (HMDG):

financial Assistance to the poor and indigent patients is given from the Health Minister's Discretionary Grant to defray a part the expenditure on hospitalization/treatment in Government Hospital as these patients cannot be considered for financial assistance under Rashtriya Arogya Nidhi due to income of above poverty line, but less than ₹ 50,000/- per annum. During the year 2008-09, financial assistance totaling ₹ 27.00 lakh was given to 145 patients. A provision of ₹ 100.00 lakh has been made during the current financial year i.e. 2000-10 and till November 2009 a sum of ₹ 17.00 lakh has been released to 96 patients.

17 Housing

HOUSING is a State subject. The Union Government is, however, responsible for the formulation of policy with regard to programme and approaches for effective implementation for social housing schemes, particularly those pertaining to weaker sections of the society. In this regard, the Ministry of Housing and Urban Poverty Alleviation is the apex authority of Government of India at the national level for formulation of housing policy and programme, review of the implementation of the plan scheme, collection and dissemination of data on housing, building materials/ techniques and for adopting general measures for reduction of building costs. In addition, it is entrusted with implementation of specific programmes of urban poverty alleviation, including provision of basic amenities to the urban poor and support for establishment of micro-enterprises by skill development of the poor. In the federal structure of the Indian polity, the matters pertaining to housing and urban development have been assigned by the Constitution of India to the State Governments. The Constitutional 74th Amendment Act has further delegated many of these functions to the urban local bodies. Although these are essentially State subjects, yet the Government of India plays a coordinating and monitoring role and also supports these programmes through centrally sponsored schemes. The Schemes and programmes running under the Ministry of Housing and Urban Poverty Alleviation are as follows:

JAWAHARLAL NEHRU NATIONAL URBAN RENEWAL MISSION (JNNURM)

Cities and towns of India constitute the world's second largest urban system. They contribute over 50 per cent of country's Gross Domestic Product (GDP) and are central to economic growth. For these cities to realize their full potential and become true engines of growth, it is necessary that focussed attention be given to the improvement of infrastructure and basic services to the poor therein. For achieving this objective, Prime Minister of India launched the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) on 3rd December, 2005. The Ministry of Housing and Urban Poverty Alleviation is implementing following components of JNNURM.

- Basic Services to the Urban Poor Urban (BSUP) in 65 select cities.
- Integrated Housing and Slum Development (IHSDP) for smaller towns/cities.

The duration of the Mission is for 7 years beginning from the year 2005-06 till 2011-12.

(A) BASIC SERVICES TO THE URBAN POOR (BSUP) UNDER JNNURM

For integrated development of slums through projects for providing shelter, basic services and other civic amenities with a view to provide utilities to the urban poor in select 65 cities, a Sub-Mission on Basic Services to the Urban Poor (BSUP) has been launched on 3rd December, 2005 by the Hon'ble Prime Minister. The Sub-Mission on Basic Services to the Urban Poor (BSUP) is implemented on a demand driven basis for which State Governments are required to prepare and submit City Development Plans (CDPs), Detailed Project Report (DPRs) and also to sign Memorandum of Agreement (MoA) making a commitment to undertake urban reforms.

Salient features of BSUP

- The Sub-Mission is to be implemented in 63 select JNNRUM cities.
- To be implemented over 7 years beginning with the year 2005-06.
- Central Assistance in the form of ACA as full grant.
- 50 per cent of the project cost in respect of cities having million plus population or above to be borne by the Central Government.
- 90 per cent of the project cost borne by the Central Government for projects from cities/towns in North Eastern States and Jammu and Kashmir.
- 80 per cent of the project cost borne by the Central Government for projects from the remaining cities.
- A minimum of 12 per cent beneficiary contribution for houses. For SC/ST/BC/OBC/PH and other weaker sections, 10 per cent beneficiary contribution.
- Access of Central assistance predicated upon the State/Urban Local Bodies/Parastatals agreeing to the reforms.
- Reforms to ensure improvement in urban Governance.
- Cities to prepare City Development Plans and Detailed Project Reports.

Admissible components under BSUP

- i. Integrated development of slums, i.e., housing and development of infrastructure projects in the slums in the identified cities.
- ii. Projects involving development/improvement/maintenance of basic services to the urban poor.
- iii. Slum improvement and rehabilitation projects.
- iv. Projects on water supply/sewerage/drainage, community toilets/baths, etc.
- v. Houses at affordable costs for slum dwellers/urban poor/EWS/LIG categories.
- vi. Construction and improvements of drains/storm water drains.
- vii. Environmental improvement of slums and solid waste management.
- viii. Street lighting.
- ix. Civic amenities, like, community halls, child care centers, etc.
- x. Operation and maintenance of assets created under this component.
- xi. Convergence of health, education and social security schemes for the urban poor.

Since the launch of Basic Services to the Urban Poor (BSUP) an amount of ₹ 5312.12 crore has been released against 475 projects from 64 Mission cities for construction of 10,22,689 dwelling units (new and upgradation) under JNNRUM as on 30 June, 2010.

(ii) Integrated Housing and Slum Development (HSDP)

In cities/towns not covered under BSUP, an Integrated Housing and Slum Development (HSDP) has also been launched along with INNURM on 3 December 2005. Integrated Housing and Slum Development Programme (HSDP) has subsumed Valmiki Ambedkar Awas Yojana (VAMBAY) and the National Slum Development Scheme (NSDP). The IHSDP has been launched with the objective to strive for holistic slum

development, with a healthy and enabling urban environment by providing adequate shelter and basic infrastructure facilities to the slum dwellers of the identified urban areas.

Salient features of IHSDP :

- Central Assistance in the form of ACA as full grant.
- 80 per cent of the project cost borne by the Central Government.
- 90 per cent of the project cost borne by the Central Government for projects from cities/towns in special category States.
- A minimum of 12 per cent beneficiary contribution for houses. For SC/ST/BC/OBC/PH and other weaker sections, 10 per cent beneficiary contribution.
- Access of Central assistance predicated upon the State/Urban Local Bodies/Parastatals agreeing to the reforms.
- Reforms to ensure improvement in urban Governance.
- Cities/towns to prepare Detailed Project Reports.

Admissible Components under IHSDP

- i) Provision of shelter including upgradation and construction of new houses.
- ii) Provision of community toilets.
- iii) Provision of physical amenities like water supply, storm water drains, community bath, widening and paving of existing lanes, sewers, community latrines, street lights, etc.
- iv) Community Infrastructure like provision of community centres to be used for pre-school education, non-formal education, adult education, recreational activities, etc.
- v) Community Primary Health Care Centre Buildings can be provided.
- vi) Social Amenities like pre-school education, non-formal education, adult education, maternity, child health and primary health care including immunization, etc.
- vii) Sites and services/houses at affordable costs for EWS and LIG categories.
- ix) Slum improvement and rehabilitation projects.
- x) Land acquisition cost will not be financed except for acquisition of private land for schemes/projects in the North Eastern States and hilly States, viz., Himachal Pradesh, Uttarakhand and Jammu and Kashmir.

Since the launch of Integrated Housing and Slum Development Programme (IHSDP), an amount of ₹ 3529.27 crore has been released against 946 projects for construction of 502935 dwelling units (new + upgradation) in 807 cities/towns as on 30 June 2010.

Mission Achievements as on 30 June 2010

1421 projects with total project cost of ₹ 36088.62 crore comprising Central share of ₹ 19910.58 crore have been approved for construction/upgradation of 15.26 lakh Dwelling Units in 870 cities/towns under BSUP and IHSDP.

PROGRESS: 3 Pro Poor Key Reforms

- **Internal earmarking within local body budgets for Basic Services to the Urban Poor**
55 cities have so far undertaken implementation of this reform.
- **Earmarking of at least 20-25 per cent of developed land in all housing projects (both public and private agencies) for EWS/LIG category**
21 States (50 cities) have issued the policy directives to reserve developed land in public and/or private housing projects.
- **Implementation of 7-Point Charter: Provision of 7 Basic Entitlements/Services**
This reform is to be implemented in a staggered manner over the Mission period in convergence with the programmes of other Ministries as this is also an outcome of the Mission.

(iii) Scheme of Affordable Housing in Partnership

The Government has launched new scheme of Affordable Housing in Partnership with an outlay of ₹ 5,000 crore for construction of one million houses for EWS/LIG/MIG with at least 25 per cent for EWS category. The scheme aims at partnership between various agencies/Government/parastatals/Urban Local Bodies/developers for realizing the goal of affordable housing for all. Detailed Guidelines have been issued in this regard. Sixteen projects with total project cost of ₹ 1,288.82 crore were approved under Affordable Housing in Partnership for the States of Uttar Pradesh (10 projects) and Chhattisgarh (6 projects).

(iv) Slum-free City Planning Scheme

Rajiv Awas Yojana (RAY) aimed at making cities slum free would require tremendous preparatory exercise and start up activities for preparation of State Plans of Action. Accordingly, a new scheme called Slum-free City Planning under Rajiv Awas Yojana has been launched for providing financial support to state Governments for undertaking the preparatory exercises viz. Slum surveys, Slum MIS, GIS Mapping of Slums, development of GIS-enabled Slum Information System, preparation of Slum-free city and State plans, developing legal framework for providing property right to the poor, addressing issues of master planning including revamping of laws under town planning, urban development, municipal administration and slums, undertaking community mobilization etc. within allocation of Rs. 120 crore. A sum of Rs. 60 crore was released during 2009-10.

The Ministry has launched a National Slum-free City Campaign in select cities and is holding workshops/capacity building programmes in various regions of the country to facilitate the preparation of models and guidelines for the preparation of Slum-free City Plans based on slum survey and GIS Mapping and replication of models on a wide scale.

RAJIV AWAS YOJANA (RAY)

Ministry of Housing and Urban Poverty Alleviation, Government of India has announced an ambitious scheme for slum dwellers in the year 2009. The new scheme Rajiv Awas Yojana (RAY) envisages a 'Slum-free India' through encouraging States/Union Territories to tackle the problem of slums in a definitive manner. Tackling the problem of slums under the Rajiv Awas Yojana is proposed to be done by adopting a multi-pronged 'whole city' approach focusing on:

- Bringing existing slums within the formal system and enabling them to avail of the same level of basic amenities as the rest of the town;

- Redressing the failures of the formal system that lie behind the creation of slums; and
- Tackling the shortages of urban land and housing that keep shelter out of reach of the urban poor and force them to resort to extra-legal solutions in a bid to retain their sources of livelihood and employment.

Moving a step ahead the other housing schemes for urban poor and slum dwellers, the newly announced, Rajiv Awas Yojana, envisages the accordance of property rights to the slum dwellers. It also envisages the use of GIS enabled MIS for slums through its Slum Free City Planning Scheme. The Budgetary allocation for the year 2010-11 for RAY is ₹ 1270 crore.

SWARNA JAYANTI SHAHARI ROZGAR YOJANA (SJSRY)

Ministry of Housing and Urban Poverty Alleviation is implementing an employment oriented Urban Poverty Alleviation Centrally sponsored scheme named Swarna Jayanti Shahari Rozgar Yojana (SJSRY), on all India basis, with effect from 1 December, 1997. The scheme strives to provide gainful employment to the urban unemployed and underemployed poor, through encouraging the setting up of self employment ventures by the urban poor living below the poverty line, and also through providing wage employment by utilizing their labour for construction of socially and economically useful public assets. The scheme of Swarna Jayanti Shahari Rozgar Yojana (SJSRY) has been comprehensively revamped with effect from 2009-2010. The following major changes have been effected in the scheme:

- (i) For special category States (8 NER States and 3 other hilly States i.e. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Jammu and Kashmir, Himachal Pradesh and Uttarakhand), the funding pattern for the Scheme between Centre and States has been revised from 75:25 to 90:10.
- (ii) For the beneficiary under the Urban Self Employment Programme (USEP) component of the Scheme, the education limit criteria of "not educated beyond 9th standard" has been removed and now no minimum or maximum educational qualification level has been prescribed for the purpose of eligibility of assistance.
- (iii) For the self-employment (individual category), the project cost ceiling has been enhanced to ₹ 2.00 lakh from the earlier ₹ 50,000 and the subsidy has also been enhanced to 25 per cent of the project cost (subject to a maximum of ₹ 50,000), from the earlier 15 per cent of the project cost (subject to a maximum of ₹ 7500).
- (iv) For the group enterprises set up by urban poor women, the subsidy has been made as 35 per cent of the project cost or ₹ 300,000 or 60,000 per member of the Group, whichever is less. The minimum number required to form a women group has been reduced from 10 to 5. The revolving fund entitlement per member has also been enhanced from the existing ₹ 1000 to ₹ 2000.
- (v) Under the Urban Wage Employment Programme (UWEP) component, which is applicable to the towns having population less than 5 lakh as per 1991 census, the 60:40 Material labour ratio for the work under UWEP, flexibility of 10 per cent (either side) is now accorded to the States/UTs.
- (vi) The Skill Training of the Urban poor component has been restructured and quality skill training will be provided to the urban poor linking it with certification, imparted preferably on Public-Private partnership (PPP) mode, with the involvement of reputed institutions like IITs, NITs, Poly-techniques,

ITIs, other reputed agencies etc. The average expenditure ceiling per trainee has been enhanced from ₹ 2600 to ₹ 10000.

- (vii) 3 per cent of the total Scheme allocation will be retained at the Central level for special/innovative projects to be undertaken to implement a time-bound targeting to bring a specific number of BPL families above the poverty line through self-employment or skill development.

The revised Swarna Jayanti Shahari Rozgar Yojana (SJSRY) now has following five major components:-

- (i) Urban Self Employment Programme (USEP)-Targeting individual urban poor for setting up of micro-enterprises.
- (ii) Urban Women Self-help Programme (UWSP)-Targeting urban poor women self-help groups for setting up of group-enterprises and providing them assistance through a revolving fund for thrift and credit activities.
- (iii) Skill Training for Employment Promotion amongst Urban Poor (STEP-UP)-Targeting urban poor for imparting quality training so as to enhance their employability for self-employment or better salaried employment.
- (iv) Urban Wage Employment Programme (UWEP)-Assisting urban poor by utilising their labour for construction of socially and economically useful public assets, in towns having population less than 5 lakh.
- (v) Urban Community Development Network (UCDN)-Assisting the urban poor in organising themselves in self-managed community structures so as to gain collective strength to address the issues of poverty facing them and participate in the effective implementation of urban poverty alleviation programmes.

INTEREST SUBSIDY SCHEME FOR HOUSING THE URBAN POOR (ISHUP)

“*Affordable Housing for All*” is an important policy agenda of the Government of India. The Government of India has sought to create an enabling and a supportive environment for expanding credit flow to the housing sector and increasing home ownership in the country. Various policy pronouncements have reinforced the primacy of the housing sector and the need to provide shelter opportunities to everyone.

As per the Technical Group set up by the Ministry of Housing and Urban Poverty Alleviation (MHUPA), Government of India in year 2007, the estimated urban housing shortage was 24.7 million units. Of this shortage, 99 per cent is related to Economically Weaker Section (EWS) and Low Income Group (LIG) segments.

In the National Urban Housing and Habitat Policy, 2007 a demand driven approach, ranging from subsidy based housing schemes to cost recovery-cum-subsidy schemes for housing through a pro-active financial policy including micro-finance and related self-help group programmes, has been advocated. The policy seeks to devise innovative housing finance schemes for targeting the two segments-EWS and LIG with suitable support from Central and State Governments to increase flow of finance for catering to housing needs of these segments.

The government has approved an Interest Subsidy Scheme for Housing the Urban Poor (ISHUP) in the month of December, 2008. The Interest Subsidy Scheme seeks to supplement the efforts of the Government through the JNNURM to comprehensively address the housing shortage. The interest subsidy on housing loans for the urban poor will enhance affordability besides leveraging funds from

the market for lower segments. Under this scheme, a subsidy of 5 per cent per annum is given for loans of ₹ 100,000 taken during the 11th Plan. The loan repayment period is 15-20 years.

SALIENT FEATURES

The Scheme leverages flow of institutional finance for the EWS and LIG segment households and will result in creation of additional housing stock of 3.10 lakh houses for EWS/LIG segments over the 11th Plan period, out of which 2.13 lakh dwelling units are targeted for EWS housing and 0.97 lakh for LIG housing and 0.97 lakh for LIG housing. Households with monthly income of upto Rs. 3,300 (now revised as upto ₹ 5,000) are classified as EWS while those with monthly income between ₹ 3,301 and ₹ 7,300 (now Revised as between ₹ 5,001 to ₹ 10,000) are termed LIG.

The Key objective of the Scheme is to enable EWS and LIG households to avail affordable housing loans for purchase of house/construction of new house. Loan repayment periods are generally for 15-20 years. The subsidy is 5 per cent p.a. for EWS and LIG, admissible for a maximum loan amount of ₹ 1 lakh over the full period of the loan.

Beneficiary borrowers may choose fixed or floating rates (the consequences clearly explained to the borrowers by Primary Lending Institutions (PLIs). An additional 1 per cent p.a. maximum is permitted to be charged by banks/HFCs if fixed rate loans are extended. Mortgage of the dwelling unit is accepted as primary security. However, there is no collateral security/third party guarantee for loans upto and inclusive of Rs. 1 lakh excluding group guarantee. No levy of prepayment charges is permitted.

The Net Present Value (NPV) subsidy is given to the lenders i.e. PLIs on upfront and quarterly basis. The NPV subsidy given to the lender is to be deducted from the principal loan amount of the borrower, who is then required to pay interest to the PLI at an agreed document rates for the whole duration of the loan.

The Scheme will close in 2012, the last year of the 11th Five Year Plan Period (2007-12). However, the loans extended in the last year will also have repayment period upto 20 years.

Under the scheme, preference (subject to beneficiaries being from EWS/LIG segments) is to be given to Scheduled Caste, Schedule Tribe, Minorities, persons with disabilities and women beneficiaries in accordance with their proportion in the total population of city/urban agglomerate during the 2001 census.

NHB and HUDCO, as intermediary financial institutions, are responsible for administering the subsidy to the eligible institutions and submitting utilization certificates from the PLI's.

PROGRESS FOR THE YEAR 2009-10

Two consultations with States/UTs and Public Sector Banks were also organized in the month of May, 2009. The scheme was also reviewed by the Hon'ble Finance Minister with the CMD's of banks and financial institutions in June, 2009. A review meeting was held with identified states and banks/ HFI's (Housing Finance Institutions) which have entered into an agreement with the Central Nodal Agencies namely HUDCO and NHB in the month of December, 2009. The Ministry had also held meetings with state governments namely Gujarat, Kerala, Karnataka, Andhra Pradesh, Tamil Nadu, Madhya Pradesh, Maharashtra, Haryana, Punjab, Uttar

Pradesh, Rajasthan, Orissa, Chhattisgarh and Jammu and Kashmir to review the progress and to disseminate the information about the scheme.

The state level Bankers' Committee meetings were held in 14 States and the States of Andhra Pradesh, Karnataka, Tamil Nadu, Rajasthan and Kerala assigned a total target of 6, 29, 121 beneficiaries.

During 2009-10, an amount of ₹ 5 crore was available to the Ministry at RE stage, out of which an expenditure of ₹ 83 lakh was incurred benefitting 603 persons in the State of Andhra Pradesh.

TARGETS FOR THE YEAR 2010-11

- (i) For the financial year 2010-11, ₹ 200 cr. has been allocated for this scheme which is likely to benefit 1,50, 000 beneficiaries.
- (ii) Upto 31st May, 2010. ₹ 56 lakh has been released as subsidy which has benefitted 762 persons in the State of Andhra Pradesh.

INTEGRATED LOW COST SANITATION SCHEME

The Integrated Low Cost Sanitation Scheme basically aims at conversion of individual dry latrine into pour flush latrine thereby liberating manual scavengers from the age old, obnoxious practice of manually carrying night soil.

ILCS Scheme was initially started in 1980-81 through the Ministry of Home Affairs and later through Ministry of Social Justice and Empowerment. The scheme was transferred in 1989-90 to Ministry of Urban Development and Poverty Alleviation and from 2003-04 onwards to Ministry of UEPA/HUPA. The scheme has helped in constructing/convertng over 28 lakh latrines to liberate over 60952 scavengers so far.

While implementing the ILCS Scheme, it was observed that the Scheme did not perform well due to various reasons. To make the Scheme more attractive and implementable the Guidelines have been revised w.e.f. 17th January 2008.

SALIENT FEATURES

The Salient features of the revised guidelines of the Scheme are as follows:

- (i) The objective of the Scheme is to convert/construct low cost sanitation units through sanitary two pit pour flush latrines with superstructures and appropriate variations to suit local conditions (area specific latrines) and construct new latrines where EWS Household have no latrines.
- (ii) The scheme is on 'All Town' coverage basis irrespective of the population criteria. The Scheme is limited to EWS households only.
- (iii) Targets are fixed initially in the ratio of 75 per cent for conversion of dry latrines with reference to 6 lakh dry latrines reported by the States so far and 25 per cent for provision of pour flush latrines to beneficiaries having no latrines.
- (iv) The scheme is funded in the following manner:- Central Subsidy 75 per cent, State Subsidy 15 per cent and beneficiary Share 10 per cent.
- (v) The upper ceiling cost of ₹ 10,000 is provided for the complete unit of a two pit pour flush individual latrine with superstructure (excluding States falling in difficult/hilly areas). For the States falling in the category of difficult and hilly areas, 25 per cent extra cost is provided for each two pit pour flush latrine. The Scheme is limited to EWS households only and does not entail a loan component.

The scheme will be implemented by Ministry of Housing and Urban Poverty Alleviation directly.

- (vi) The States should select NGOs having adequate experience in this field who will be funded to a maximum extent of 15 per cent over and above the total project cost to be borne by the Centre and States based on the ratio of 5:1 at different stages of implementation.
- (vii) 1 per cent of total central allocation is retained by the Ministry every year, to be utilized for MIS, Monitoring System, Capacity Building and IEC components.

CUMULATIVE PROGRAMME STATUS UNDER THE EARLIER ILCS SCHEMES

Till 31st March, 2010 the total number of schemes sanctioned under the previous ILCS programme through HUDCO is 873 covering 2093 towns in 23 States/UTs. The cumulative project cost of the scheme is ₹ 236834.16 lakh for conversion and construction of 5020074 units. The cumulative subsidy released as on 31st December, 2009 ₹ 35951.30. lakh. As per the progress reported by the State nodal agencies, 2881862 units have been completed. The total number of 60952 scavengers have been liberated through implementation of ILCS scheme and 911 towns have been declared as scavenger-free.

PROGRESS UNDER THE REVISED GUIDELINES OF ILCS SCHEME

Within the last one year States of Andhra Pradesh, West Bengal, Nagaland and Assam have stated that they have no dry latrines in their States. Presently four States namely Bihar, Uttar Pradesh, Uttarakhand, and Jammu and Kashmir have reported the existence of dry latrines as follows:

Sl.No.	Name of the State	Number of existing Dry Latrines as reported by States
1.	Bihar *	931
2.	Uttar Pradesh	238253
3.	Uttarakhand	1613
4.	Jammu and Kashmir **	63927
Total		304724

* Based on Survey report received from 138 towns of 39 Districts of Bihar.

** Based on earlier survey. New survey is under progress.

The number of proposals sanctioned under the revised guidelines of ILCS is given below:

Sl. No.	Name of the State	No. of units for conversion	No. of units for Construction	Total units sanctioned
1.	Bihar	3545	8586	12131
2.	Jammu and Kashmir	5624	273	5897
3.	Manipur	0	7117	7117
4.	Maharashtra	0	4452	4452
5.	Nagaland	499	4981	5480
6.	Uttar Pradesh	238253	0	238253

7.	Uttarkhand	1613	0	1613
8.	West Bengal	0	6798	6798
9.	Kerala	0	1675	1675
10.	Madhya Pradesh	0	2514	2514
11.	Tripura	2429	569	2998
Total		251963	36965	288928

There was a budget provision of Rs. 60.00 crore for the financial year 2009-10 under the Scheme. During the year 2009-10, proposals received from the States of Uttar Pradesh, Uttarakhand, Maharashtra, Bihar, Jammu and Kashmir, Madhya Pradesh, Nagaland and Tripura were considered in the Sixth, Seventh and Eighth Coordination Committee Meetings and a total of ₹ 49.85 crore was released under the scheme. Under the revised guidelines of ILCS Scheme, 1 per cent of the total Budget Estimates is earmarked for MIS, Monitoring System, Capacity Building and IEC Component. In the financial year 2009-10 ₹ 1.00 crore was earmarked for IEC Component and an amount of ₹ 65.00 lakh has been spent for the purpose of advertisement, appraisal fee to BUDCO and Media Campaign of the Ministry. During the current financial year (2010-11) there is a budget allocation of ₹ 71.00 crore under the scheme.

During the year 2010-11 second installment of Rs. 39.64 crore and ₹ 0.92 crore have been sanctioned to Uttar Pradesh and Uttarakhand respectively to complete the conversion task by December 2010. Now Jammu and Kashmir has stated that the dry latrines reported by them do not come under the definition of dry latrines and hence the State may be treated as having no dry latrines. Other States have reported that there are no dry latrines in their States. The Ministry is impressing upon the State Governments of Bihar, to complete the conversion of existing dry latrines into water sealed latrines on a fast track basis so as to achieve the objective of making the country dry latrine free by 2010.

The revised ILCS Scheme envisages conversion of all existing dry latrines within a period of three years (2007-2010). With the implementation of the Revised ILCS Scheme, it is expected that the system of manual scavengers will be eradicated from the country.

Projects/Schemes for the development of North Eastern States, including Sikkim under 10 per cent Lump-sum provision earmarked for this purpose

The then Ministry of Urban Development and Poverty Alleviation had organised a conference of Ministers of Local Self Governments/Urban Development/Housing of North Eastern States and Sikkim at Gangtok on 19-20 May, 2001. The main objective of the conference was to review the progress of Centrally Sponsored Scheme being implemented by this Ministry in these states and to evolve appropriate strategies for the special development needs of the eight States. As a follow up action of the conference, a task Force was constituted in the Ministry under the Chairmanship of the Union Minister for Urban Development and Poverty Alleviation for considering project proposals from the State Governments of North Eastern Region and Sikkim to be funded out of the Non-Lapsable Central Pool Fund meant for these states. It may be recalled that a decision was taken by the Government of India that 10 per cent of the total budget provision for the Ministries/Departments will be spent on the projects/schemes of development for the North Eastern Region including Sikkim. Funds under

this provision are non-lapsable and unspent balances under this provision in a financial year are pooled up in the non-lapsable central fund meant for these States, and are governed by the Department of Development of North Eastern Region (DoNER).

Ministry of Housing and Urban Poverty Alleviation is concerned with the project proposals for the North Eastern States in the following identified areas :

- i) Housing projects (predominantly for the urban poor).
- ii) Poverty alleviation projects.
- iii) Slum improvement/upgradation projects.

Accordingly, the project proposals are invited from the State Governments of North Eastern Region including Sikkim and considered in the Ministry of Housing and Urban Poverty Alleviation under the 10 per cent lump sum provision of the Budget of the Ministry, placed separately for the projects/schemes for the benefit of North Eastern Region and Sikkim.

Ministry of Housing and Urban Poverty Alleviation has since formulated Operational Guidelines for sanctioning of project under 10 per cent lumpsum provision for North Eastern States including Sikkim in this Ministry. The projects on the following will be sanctioned under the scheme (in the descending order of priority).

- i) Urban Resource Centres (preferably in State Capitals),
- ii) All women's Market/Shopping Complexes and Vendors Markets,
- iii) Slum improvement/upgradation,
- iv) Working women's hostel.

The project should be commensurate with the population of the towns/cities i.e. smaller towns may be allocated smaller projects whereas bigger towns/cities can have major projects.

Projects under 10 per cent lumpsum provision for the NER including Sikkim.

Year	Funds allocated (Rs. in Crore)	Funds released (Rs. in Crore)	Projects Sanctioned
2001-2002	33.00	33.00	8
2002-2003	62.50	44.17	14
2003-2004	62.50	51.00	1
2004-2005	83.00	82.00	22
2005-2006	50.00	45.06	11
2006-2007	50.00	50.00	7
2007-2008	50.00	50.00	0
2008-2009	50.00	50.00	1
2009-2010	53.50	53.50	20
2010-2011			
Total	494.50	458.73	84

As on 31 March, 2010

Total Projects Sanctioned under the Scheme — 84

Total completed projects	—	37
Ongoing projects	—	47
Total Project cost	—	₹ 63819.58 lakh
Total funds released	—	₹ 45873.07 lakh
Total committed liability	—	₹ 17946.51 lakh

NATIONAL BUILDINGS ORGANISATION (NBO):

The National Buildings Organization (NBO), an attached office of the Ministry of Housing and Urban Poverty Alleviation has been functioning as an apex organization in the country for collection, tabulation and dissemination of statistical information on housing and building construction activities. Having regard to the changing requirements under various socio-economic and statistical functions connected with housing, construction, slum development, urban poverty alleviation and related activities, and also to ensure that the schemes of the Ministry of Housing and Urban Poverty Alleviation (MoHUPA) are supported with appropriate database, MIS and knowledge inputs, the National Building Organization was restructured in March 2006.

The restructuring has assumed special significance in the context of the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), launched on 3rd December 2005. JNNURM is the single largest initiative ever launched in the country to address the issues of urban infrastructure and basic services to the urban poor. The Mission will be implemented over a period of 7 years (2005-2012). The Government of India has committed additional Central Assistance to States to the tune of Rs. 50,000 crore. The National Buildings Organization is designated by MoHUPA as the nodal agency for coordination of appraisal, sanction, monitoring and review of projects under Basic Services to the Urban Poor (BSUP) and Integrated Housing and Slum Development Programme (IHSDP) components of JNNURM.

The mandate of the restructured National Building Organization is envisaged to be follows:

- To act as a national resource centre and repository of urban poverty, slums, housing, building construction and related statistics, networked with similar resource centres at State and Urban Local Body levels and internationally;
- To collect, collate, validate, analyze, disseminate and publish building construction, housing and other related statistics and statistical reports from time to time;
- To bring out compendiums on urban poverty, slums, housing and build construction statistics and applied research publications analyzing statistical data gathered from various sources such as the Census, NSSO etc;
- To create and manage a fully computerized data centre equipped with appropriate systems and e-governance tools to store, manage, retrieve and disseminated urban data as and when needed for policies and programmes;
- To conduct regular short-term sample surveys/field studies in various pockets of the country to study the impacts of plan schemes being run by the Ministry of Housing and Urban Poverty Alleviation and other Ministries and to gather primary data as needed;
- To undertake socio-economic research relating to design, formulation, implementation, monitoring, review and impact evaluation of policies, plans,

programmes and projects covering areas such as slum development/upgradation, affordable housing and basic services to the urban poor;

- To develop a documentation centre relating to urban poverty, slums, housing, building construction and related urban statistics which can function as repository of urban resources, including best practices and innovations;
- To organize capacity building/training programmes for the officers and staff of Government of India, State Governments and Urban Local Bodies engaged in collection and dissemination of urban poverty, slums, housing, building construction, and related urban statistics;
- To coordinate and collaborate with State Governments/Municipal Authorities/Research and Training institutions/Statistical Institute/International Organisations as nodal agency catering to data and MIS needs of urban policy-makers, planners and researchers in areas relating to urban poverty, slums, housing etc;

PLAN SCHEME USHA

A new plan scheme of NBO viz., Urban Statistics for HR and Assessments (USHA) was launched which aims at the development and maintenance of national a database, MIS and knowledge repository relating to urban poverty, slums, housing, construction and other urbanization-related statistics. Its key objective is to support the Ministry of Housing and Urban Poverty Alleviation, other Ministries and State Governments with an information base and knowledge inputs for the purpose of planning, policy-making, project design, formulation, implementation, monitoring and evaluation, particularly in the context of programmes relating to urban poverty, slums and housing. It seeks to specially support the effective implementation of Jawaharlal Nehru National Urban Renewal Mission - Basic Services to the Urban Poor (BSUP) and Integrated Housing and Slum Development Programme (HSDP). The four pillars of USHA are database including MIS and sample survey; action research; impact assessment; and capacity building/training. Under this Central Sector Scheme "Urban Statistics for HR and Assessments (USHA) NBO has released fund to 32 States/UTs during 2007-08 for procurement of computers, printers, UPS, system software and other accessories to be used for collection and collation of building construction, housing, slums and poverty statistics, including Sample Survey data.

LAUNCH OF SOFTWARE FOR ONLINE TRANSMISSION OF DATA

National Buildings Organization (NBO) has implemented a state-of-the-art decentralizes web based online system BRIKS - Building Related Information and Knowledge System. Using BRIKS the e-Unit in NBO will be up-linked to State Governments/Departments/Bureaus of Economics and Statistics, Municipal Administration and Urban Development, Municipal Corporations, Municipalities, Urban Development Authorities; Research and Training Institutions etc. This decentralized system will help overcome the constrains of data collection faced by NBO - Timeliness of data, data completeness, data accessibility and data visibility to multiple stake holders. BRIKS will allow NBO and all the user of the system to:

- (a) Adopt holistic approach for evolving developmental schemes
- (b) Continuous development of assessment schemes
- (c) Research
- (d) Training and capacity building

HOUSING START-UP INDEX (HSUI)

The National Buildings Organization, Ministry of Housing and Urban Poverty Alleviation is a nodal agency to collect, collate and disseminate data relating to Building permits and Housing Starts and operationalisation of the index. National Buildings Organization has been working in tandem with Reserve Bank of India to operationalize the index for its interlink with the Monetary Policy to capture the movements in the Housing Starts and causality of the same for monetary movement and directions in the country.

For the purpose of collecting, collating data on building permits and, Housing Starts initially for 50 Mission Cities, National Buildings Organization, has decided to provide Financial Assistance to the State Governments to establish a Housing Start-up Index (HSUI) cell at ULB level to collect and collate the data on building permits and, Housing Starts on regular basis at city level and coordinate with the National Buildings Organization.

HOUSING AND URBAN DEVELOPMENT CORPORATION LIMITED (HUDCO)

HUDCO, since its inception in 1970, has made steady and significant strides in the field of housing and urban infrastructure financing, to emerge as the pioneer and the trend-setter. Catering to the needs of every section of the population, with a basket of delivery options both in housing and urban infrastructure development, HUDCO aims to achieve sustainable growth in these sectors.

HUDCO, during the four decades of its existence, has extended assistance for taking up over 145 lakh dwelling units both in urban and rural areas. HUDCO's assistance covers the housing needs of every class of the society, with special emphasis on the economically weaker sections and the low income groups. About 94 per cent of the total dwelling units sanctioned by HUDCO are for the economically weaker section and the low income groups.

HUDCO, continued its emphasis on the disaster mitigation front by extending substantial techno-financial assistance for rehabilitation and reconstruction in the aftermath of natural calamities. Cumulatively till March 2010, HUDCO has extended support for taking up over 41 lakh houses in disaster affected regions with a project cost of over ₹ 4094 crore and HUDCO's soft loan assistance of ₹ 2209 crore. HUDCO has been advocating pre-disaster mitigation and risk reduction involving Prediction, Preparation, Prevention, Publicity and Protection, as against the prevalent postdisaster actions of Rescue, Relief, Rehabilitation, Reconstruction, Repairs, Renewals and Retrofitting.

Adequate basic infrastructure services and appropriate social amenities has been an integral part of HUDCO agenda of sustainable habitat development. As part of its urban infrastructure operations, HUDCO has sanctioned a total of 1563 projects with a total project cost of ₹ 3,98,122 crore and HUDCO loan assistance of ₹ 79,050 crore, contributing to an improvement in the physical quality of life of the citizens at large.

With the cost of construction increasing year after year, housing is becoming beyond the reach of most sections of the society and the need for utilizing cost-effective technologies has become imperative. HUDCO has been promoting the use of alternative building materials and appropriate technologies to ensure cost-effective, environment friendly, ecologically appropriate, energy saving and yet aesthetically pleasing and affordable housing. The question of transfer of technology at the grass

root level is addressed by the support extended to the establishment of 577 Building Centres in urban areas and 78 Building Centres in rural areas across the country.

HUDCO's OPERATIONS - Cumulative and during 2009-10

Cumulatively till March 2010, HUDCO has sanctioned 16251 schemes involving a total project cost of ₹ 473279 crore with a loan component of ₹ 106754 crore out of which an amount of ₹ 67672 crore has been release. HUDCO's assistance has helped in the construction of 145.04 lakh residential units, about 66.87 lakh sanitation units and undertaking 1563 urban infrastructure schemes effectively improving the living conditions in the urban and rural areas.

HUDCO, during year 2009-10, has sanctioned 147 projects for a total loan amount of ₹ 16624 crore covering ₹ 2717 crore for housing projects and ₹ 13,907 crore for urban infrastructure projects. The loan released during the year amounted to ₹ 3098 crore of which ₹ 802.30 crore was for housing and ₹ 2295.70 crore was released for urban infrastructure projects.

HOUSING OPERATIONS

During the year, a total loan amount of ₹ 2717 crore has been sanctioned for housing schemes and an amount of ₹ 802.37 crore has been released. Of this, an amount of ₹ 30.87 crore was released under HUDCO Niwas (HUDCO's individual housing loan lending window).

During the year, HUDCO has sanctioned a total of 2,97,907 dwelling units of which 2,40,881 units were in urban areas and 57,026 units in rural areas. HUDCO continued its special emphasis for supporting the weaker sections of the society in its housing operations. Of the total units sanctioned, 2,29,575 housing units forming about 77 per cent of all housing units supported, pertained to the Economically Weaker Sections and Low Income Groups.

MoU BETWEEN HUDCO AND MINISTRY OF HOUSING AND URBAN POVERTY ALLEVIATION

HUDCO and the Ministry of Housing and Urban Poverty Alleviation have signed a Memorandum of Understanding (MoU) for the year 2010-11 in regard to various operational performance parameters. The MoU envisages significant growth in operations of HUDCO in the Housing and Urban Development sector with a sanction of about ₹ 16500 crore and release of ₹ 5775 crore for the sector during the year. The MoU also provides a major role for HUDCO in the implementation of the governments projects such as the Interest Subsidy for Housing the Urban Poor (ISHUP), JNNURM and the Rajiv Awas Yojana with its contributions covering both funding and fee based consultancy services.

HINDUSTAN PREFAB LIMITED (HPL)

Creation of Hindustan Prefab Limited (HPL) the then Hindustan Housing Factory (HHF) was a brainchild of Late Pt. Jawaharlal Nehru, the first Prime Minister of India and was set up as a Govt. Department in 1948 to meet the immediate housing need for displaced persons migrated from West Pakistan. Subsequently, it was registered as a company under Indian Companies Act 1913 on 16th August, 1955 in the name and style of HHF Ltd. and became a CPSE under the administrative control of the then Ministry of Works and Housing, now under Ministry of Housing and Urban Poverty Alleviation. In the year 1978, the Government changed its name from Hindustan Housing Factory (HHF) to Hindustan Prefab Limited (HPL). The objective of HPL is

to promote prefab/ precast technology in India for expeditious completion with best of quality of housing projects etc. Thereafter it has come off age and earned its name and fame by pioneering the PRC Railway Sleepers which have replaced the wooden as well as stainless steel sleepers in Indian Railways.

Prefab innovative technology is vital in implementing various schemes of Govt. particularly in the Ministry of HUPA to cut time in implementing the scheme on large scale Housing and Infrastructure Projects. HPL is one of the Executive Arms of Govt. of India for the projects under Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and also for the projects under NRHM (National Rural Health Mission). HPL is now actively engaged in execution of mass housing, institutional buildings, infrastructure development, specialized projects in Health Sector and now working in 14 states with dominance in North-East, where it is serving in difficult tribal areas for Para-military forces also.

HPL is turn-around from April 1 2008. Since 2008-09 HPL is a Profit Making organization. It is once again re-establishing itself in its core area of prefab/ precast with presence all over the country. The organisation is having business for approx ₹ 2000 crore.

HPL is now a market leader capable to offer every solution in the construction industry, may be prefab, partial prefab or conventional methods of constructions.

BUILDING MATERIALS AND TECHNOLOGY PROMOTION COUNCIL (BMTPC):

Building Materials and Technology Promotion Council (BMTPC) is an autonomous body under the aiges of the Ministry of Housing and Urban Poverty Alleviation, Government of India established in 1990. Since inception, it has worked towards a comprehensive and integrated approach for promotion and transfer of potential, cost effective environment friendly, disaster resistant building materials and technologies including locally available materials from lab to land for sustainable development of housing.

In this process, the Council has been instrumental in introduction of a number of building materials and technologies based on agro-industrial wastes such as flyash based bricks/blocks, coir polymer composites, bagasse boards etc. Pre-fabrication is another area which has been promoted by the Council with success. Using partial pre-fabricated components, a number of houses in different States have been constructed bringing cost reduction compared to conventional one. For increased productivity and quality, the Council has developed easy-to-operate simple machines for production of various components, which are being used in construction with encouraging results all over the country. The Council provides necessary inputs for policy interventions in the areas of saving of forest wood, top layer of soil, environment, energy, etc.

With the efforts of the Council, a number of Indian Standards have been formulated through Bureau of Indian Standards (BIS) on cost effective technologies such as flyash bricks, RCC planks and joist, bamboo mat corrugated roofing sheets etc. Through Performance Appraisal Certification Scheme (PACS), the Council is carrying out performance evaluation of new and emerging materials, technologies and construction systems to help promotion and standardization of new materials and construction techniques.

The Council is playing an active role in disaster prevention and mitigation. It has brought out Vulnerability Atlas of India, Landslide Hazard Zonation Atlas of India, Guidelines for improving Earthquake and Wind/Cyclone prone Housing Construction and other promotional literature also in vernacular languages. With IIT Kanpur, it has brought out easy to understand Earth quake Tips on various important aspects of earth quake resistant construction. To demonstrate seismic strengthening techniques, the Council has done seismic strengthening of some lifeline buildings such as Kupwara Sub-Divisional Hospital in Jammu and Kashmir and MCD Schools in Delhi, besides several buildings in Gujarat. The Council is assisting the State/UT Governments in strengthening techno-legal regimes for safety against natural hazards.

The Council has also brought out guidelines on Seismic Retrofitting for Common Man and also for Uttrakhand and Himachal Pradesh.

For bringing awareness among common man, the Council is bringing a series of easy to understand booklets on various aspects of construction.

For showing field application of cost effective technologies being promoted, the Council has constructed demonstration houses in several places like Dehradun, Bilaspur, Trichy, Nagpur, Kudalur, Bangalore under erstwhile VAMBAY scheme.

The Council has further initiated demonstration construction in various parts of the country to showcase the use of cost effective alternate building materials and technologies. These include housing, community centres, informal markets etc. While construction is going on, the Council organises training programmes for artisans and students of engineering and architectural colleges.

To promote Bamboo as construction material, the Council has taken various initiatives such as construction of demonstration houses in Mizoram, Tripura and Meghalaya, establishment of Bamboo Mat Production Centres in North Eastern Region and Kerala.

The Council on regular basis, organises and participates in Awareness Generation Programmes, Workshops, Exhibitions, Capacity Building and Training Programmes for construction professionals and workforce.

The Council is one of the appraisal agencies for projects under Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and also involved as monitoring agency for projects under BSUP and IHS DP.

Apart from promotion of technologies in India, the Council is working towards transfer of Indian Technologies to other developing countries in Asian, African and Latin American regions.

The Council's action plan aims at fulfilling the Government's goal of providing "Affordable House for All" and basic services to urban poor.

CENTRAL GOVERNMENT EMPLOYEES WELFARE HOUSING ORGANISATION (CGEWHO)

The Central Government Employees Welfare Housing Organisation, a body of the Ministry of Housing and Urban Poverty Alleviation, Government of India, a Society registered under the Societies Registration Act, 1860 was specifically created for execution of housing projects for Central Government employees, on 'all-India', 'self-financing' and 'no profit-no loss' basis.

Housing Schemes likely to be announced during 2011, are as under :

S.No.	Stations	Tentative No of DUs
1.	Greater Noida	1250
2.	Mohali-III	226
3.	Meerut-II	432

NATIONAL COOPERATIVE HOUSING FEDERATION OF INDIA (NCHF)

The National Cooperative Housing Federation of India (NCHF), set-up in 1969, is the national apex organisation spearheading the entire cooperative housing movement in India.

The primary objective of NCHF is to promote, guide and coordinate the activities of housing cooperatives. All the 26 State level Apex Cooperative Housing Federations are members of NCHF. About 30,000 primary housing cooperatives are affiliated to Apex Federations for getting loan assistance for construction of housing units for their members. The NCHF through its member federations has constructed about 23.84 lakh dwelling units across the country with loan disbursement of about ₹ 10,709 crore.

Under the Two Million Housing Programme, all types of cooperatives have financed 9,50,884 dwelling units during the years 1998-99 to 2008-09.

18 India and the World

INDIA's foreign policy is closely integrated with the country's fundamental security and developmental priorities. We seek a global order in which India's interests are assured; the autonomy of India's decision-making is safeguarded; and which is conducive to achievement of the overriding goal of rapid, sustained and inclusive socio-economic development of the country. To this end, Indian foreign policy has combined firm commitment to our core national values with dynamic adaptation to change in the international environment. Central to our policy objectives is ensuring a peaceful and secure neighborhood, cordial and balanced relations with the major powers and mutually beneficial partnerships with developing countries.

The year 2009-10 had its share of new challenges interspersed with significant achievements in the foreign policy domain amidst noteworthy success stories in overcoming the global financial crisis.

India's commitment to close and good neighborly relations with all our sub-continental neighbours is based on the fundamental principles of equality and mutual respect. India is committed to supporting Bhutan in the consolidation of its newly established democracy. The visit of His Majesty Jigme Khesar Namgyel Wangchuck, the fifth King of Bhutan to India in December 2009 further deepened and consolidated bilateral relations. India continued its strong support to Nepal's transition to a stable, peaceful and prosperous democratic state. Prime Minister Madhav Kumar Nepal's visit to India in August 2009 and the visit of President Ram Baran Yadav in February 2010 strengthened the close ties of friendly cooperation and the unique and multifaceted relationship we share with Nepal. India continues to support Nepal's bids for getting rid of its present stalemate immediately after Mr. Madhav Kumar Nepal's (CPN-UML) resignation in June 2010. The restoration of multiparty democracy in Bangladesh has had a positive impact in many areas of cooperation with Bangladesh. Bilateral relations were greatly strengthened with Prime Minister Sheikh Hasina's visit to India in January 2010. India's pledge of a line of credit of US \$1 billion for infrastructure development in Bangladesh and Prime Minister Hasina's assurance that anti-India activity would not be allowed from the soil of Bangladesh were some of the significant landmark outcomes from this historic visit. During 2009-10, India's support and contribution to the reconstruction of Afghanistan was further consolidated with the reiteration of its commitment (Post-London Conference) to stability, development and prosperity of the Afghan people. Relations with Sri Lanka saw further development with India and Sri Lanka maintaining high-level interaction and with India's offer of assistance of ₹ 500 crores for the relief, rehabilitation and resettlement of internally displaced persons belonging to the Tamil minority and long-term reconstruction of the war-ravaged regions of the country.

Apart from maintaining close ties with the immediate neighbours, India continues to work with other SAARC member countries to transform SAARC into an effective vehicle for regional integration.

India attaches high importance to its bilateral relations with China. Despite the complex nature of this relationship, both countries continued their high-level political interaction. Prime Minister Dr. Manmohan Singh met the Chinese President Hu Jintao in Yekaterinburg (June 2009) and Premier Wen Jiabao in Hua Hin (October 2009). The

institutionalized dialogue mechanisms between the two countries covering a host of issues have steadily progressed during the period. With a convergence of interests on issues such as Doha Round of WTO negotiations, climate change, global financial crisis etc., both countries have continued to interact constructively on global issues.

India's relations with the US and Russia have not only been strengthened but also transformed qualitatively. India's engagement with the US broadened in a number of areas of mutual interest at the bilateral, regional and global level. Both new Governments in India and the US reiterated their strong commitment to strengthen the existing political and economic partnership, and take it to a higher level for mutual benefit. During the visit of US Secretary of State Mrs. Hillary Clinton in July 2009, both countries jointly announced a new agenda for Indo-US relations. The Indo-USA strategic partnership, was further consolidated with Prime Minister Dr. Manmohan Singh's visit to the US in November 2009. During the visit, Prime Minister Dr. Singh and President Obama decided to embark on a new phase in the global strategic partnership between India and the US. During the period, the US remained India's one of the largest trading partners. The total volume of Indo-US bilateral trade in goods and services stood at US \$ 59.8 billion during the period January-October 2009.

Indo-Russian relations continued to be strengthened with the State visit of President Smt. Pratibha Devisingh Patil to Russia in September 2009, Prime Minister Dr. Manmohan Singh's visit to Russia in June 2009 for Brazil-Russia-India-China (BRIC) and Shanghai Cooperative Organisation (SCO) Summits, and again in December 2009 for the annual bilateral Summit. The adoption of a Joint Declaration on further deepening the strategic partnership, initialing of an agreement on peaceful use of atomic energy, and agreements on defence-related cooperation during PM's December visit reflect the consolidation of strategic relations between the two countries. Russian Prime Minister Mr. Vladimir Putin's brief visit to India in March 2010 further strengthened our bilateral relations.

India-EU strategic partnership was provided with a new impetus. India's multi-faceted interaction with the EU intensified in diverse fields ranging from defence and security to culture and education. The 10th India-EU Summit held in New Delhi on 6 November, 2009 reviewed India-EU relations and identified concrete areas of cooperation.

Relations with countries in Europe were characterized by high-level visits, parliamentary exchanges, civil society dialogues, etc. President of India Smt. Pratibha Devisingh Patil visited Spain in April and UK in October 2009. Prime Minister Dr. Manmohan Singh visited Italy for the G-8/G-5 Summit and France for the Bastille Day celebrations in July 2009.

India continued to expand its political and economic relations with the countries in East Asia, West Asia, Central Asia, Africa and Latin America. Relations with the countries in the East Asia and the Pacific are an important dimension of India's "Look East" policy. Our relations with East Asia were strengthened by the visit of Japanese Prime Minister Mr. Yukio Hatoyama (December 2009), Malaysian Prime Minister Dato' Sri Mohd Najib Tun Abdul Razak (January 2010) and the President of the Republic of Korea, Mr. Lee Myung-bak (January 2010) to India. Relations with countries in the West Asia and Gulf region were strengthened further in several areas. India has vital interests in the Gulf region where almost 4.5 million Indians live and work.

India is strengthening its relations with Central Asian countries on the basis of historical and cultural linkages. President Smt. Pratibha Devisingh Patil paid a State visit to Tajikistan in September 2009 and External Affairs Minister Shri S.M. Krishna visited Turkmenistan and Uzbekistan during the year.

India continued to consolidate bilateral relations with African countries. 47 out of 53 African Union countries joined the Pan-African e-Network Project of the Government of India. The momentum of our relationship with African countries is also maintained through high-level visits. Shri Mohammad Hamid Ansari, Vice President of India visited Zambia, Malawi and Botswana from 5-11 January 2010.

India's engagement with Latin American and Caribbean countries continued during the year through active multi-sectoral dialogue with the region. Prime Minister Dr. Manmohan Singh visited Trinidad and Tobago for the CHOGM Summit in November 2009. President of Argentina Dr. Cristina de Fernandez Kirchner paid a State visit to India in October 2009. India's trade and economic interaction with the Latin American and Caribbean region has increased during the period.

During 2009-10, India's multilateral economic engagement further widened and deepened as evident from Prime Minister Dr. Manmohan Singh's participation in G-8 Outreach and G-5 Summits (8-10 July 2009), the first formal Summit of BRIC (Brazil, Russia, India and China), (15-17 June 2009), G-20, Pittsburgh (September 2009), India continues to play an important role in such regional groupings as Asia-Europe Meeting (ASEM), Bay of Bengal initiative for Multi-sectoral Technical and Economic Cooperation (BIMSTEC), Mekong Ganga Cooperation, Indian Ocean Rim-Association for Regional Cooperation (IOR-ARC) and G-15. The signing of India-ASEAN FTA in Goods, becoming operational from 1 January 2010 is an important milestone in India's economic engagement with the outside world.

Despite the global economic downturn resulting from the financial and economic crisis, India has fared better than most other countries, and remains one of the fastest growing among the major economies, with a growth rate that is expected to reach 7 per cent plus in 2009-10. India is an active member of G-20 and attaches importance to the implementation of the G-20 Summit decisions including that of the Pittsburgh Summit in September 2009 to arrest recession, expedite recovery and revive the world economy. In the process India has sought to ensure that international decision making on global economic issues must be democratized to reflect present realities.

An intense focus of India's foreign policy during the period has been the subject of climate change. India's approach on the issue has always been guided by the imperative to preserve India's development space and enhance energy security. Although a legally-binding agreement on climate change could not be reached at the Copenhagen Summit in December 2009, India was in the forefront with China, Brazil and South Africa (BASIC Group) together with the US, in putting in place the Copenhagen Accord. India views this Accord as a political document to facilitate negotiations in the post-Copenhagen process under the UNFCCC.

India continues to work for strengthening the United Nations. It continued its efforts to push for comprehensive reforms of the UN Security Council including its expansion in both permanent and non-permanent categories, and improving its working methods.

NEIGHBOURS

Afghanistan: A steady deterioration in the internal security situation spurred by

increasing violence in Afghanistan and attacks on out personnel, establishment and projects in Afghanistan continued to engage India's attention during the year. Following the bomb attack targeting the Indian Embassy in Kabul on 9th October, 2009, the Government of India expressed deep concern over the cowardly attack which was aimed against the people of India and people of Afghanistan and their abiding friendship. Foreign Secretary Smt. Nirupama Rao visited Kabul immediately after the attack and met President Karzai, Foreign Minister Spanta and other leaders. A terrorist attack in Kabul on 26th February, 2010 killed, among others, seven Indians and seriously injured several others. While deeply condoning the loss of life, Government stressed that India will continue to pursue its development partnership with Afghanistan, undeterred by such cowardly attacks of terrorism.

India has been at the forefront of the efforts to assist the government and people of Afghanistan in building a stable, democratic, and pluralistic society. Close political consultations with the Government of Afghanistan and regular high contacts with its leadership were maintained. India welcomed the successful holding of the Presidential and Provincial Council elections in Afghanistan on 20th August, 2009. The swearing-in ceremony of newly re-elected President Karzai which took place on 19th November, 2009 was attended by External Affairs Minister Shri S.M. Krishna. The then Afghan Foreign Minister Dr. Dadfar Rangin Spanta visited India from 26th-27th July, 2009 to hold bilateral discussions. He met Minister of External Affairs S.M. Krishna and the then National Security Advisor Shri M.K. Narayanana and called on Prime Minister Dr. Manmohan Singh. India remains actively engaged in the task of reconstruction and development of Afghanistan, India's bilateral assistance to Afghanistan has crossed US \$ 1.3 billion (as against a pledge of US \$ 1.2 billion).

Bangladesh : Following the restoration of multiparty democracy in Bangladesh, India and Bangladesh have engaged actively to enhance cooperation in a range of areas. Prime Minister Sheikh Hasina's visit to India in January 2010 opened a new chapter in India-Bangladesh relations. The Joint Communique issued during the visit outlines a range of areas for bilateral cooperation. Both sides agreed to enhance security cooperation, particularly against insurgent groups. India announced a US\$ 1 billion Line of Credit for infrastructural development projects in Bangladesh, including railway infrastructure, coaches, locomotives, buses and dredging. Connectivity received a boost with India providing road and rail transit to Bangladesh to Nepal and to Bhutan and both sides designating new parts of call in inland waterways. Bangladesh also gave access to India to use Chittagong and Mongla Port. India also agreed to supply Bangladesh 250 MWs of power. Both countries agreed to enhance cooperation in trade and investment, culture, water resources and human resource development. Three security related agreements, an agreement on power cooperation and a cultural exchange programme were also signed during the visit. Prior to the visit, Foreign Minister of Bangladesh Dr. Dipu Moni visited India in September 2009 and Foreign Secretary Smt. Nirupama Rao had also visited Bangladesh in November 2009. Both these visits led to strengthening of cooperation in various fields and greater understanding between the two countries.

Bhutan : India and Bhutan continued to share uniquely warm and cordial relations, characterized by close consultations, maturity, complete trust and mutual understanding. In keeping with the tradition of regular visits and exchange of views at the highest level between the two countries, Prime Minister visited Bhutan in April 2010 to attend the 16th SAARC Summit, and speaker of the *Lok Sabha* led a

Parliamentary delegation to Bhutan in May 2010 that included leader of the Opposition in the *Lok Sabha*. His Majesty the King of Bhutan visited India in December 2009, Prime Minister of Bhutan visited India in June-July 2009, Chief Justice of the Supreme Court of Bhutan led a delegation comprising three Supreme Court Judges to India in June 2010, Minister of Economic Affairs visited India in January 2010, Minister of Health in January 2010, Minister of Information and Communication in February 2010, and Minister of Economic Affairs in March 2010.

India continued to be the largest trade and assistance partner of Bhutan. The implementation of India-assisted projects agreed under Bhutan's 9th and 10th Five Year Plans progressed satisfactorily. Taking forward the highly successful and mutually beneficial cooperation in the field of hydroelectric energy, ten new hydropower projects have been identified for development to achieve the target of import of 10,000 MWs hydropower from Bhutan by 2020. Of these, the implementation agreements for the 990 MW *Punatsangchhu-II* and 720 MW *Mangdechhu* hydroelectric power projects were signed during the visit of the Prime Minister to Bhutan in April 2010, and work on *Punatsangchhu-I* progressed satisfactorily.

China: India attaches high importance to its bilateral relations with China. Notwithstanding the complex nature of this relationship, both countries continued their high-level political interaction. President of India Smt. Pratibha Devisingh Patil paid a state visit to China (May 2010). Prime Minister Dr. Manmohan Singh met the Chinese President Hu Jintao at Brasilia (April 2010) and Premier Wen Jiabao at Copenhagen (December 2009). External Affairs Minister Shri S.M. Krishna paid a bilateral visit to China (April 2010). With convergence of interest on issues such as Doha Round of WTO negotiations, climate change, G-20, global financial crisis, etc. both countries have continued to interact constructively on global issues.

The year saw continuing high-level engagement with China, including the bilateral visits of the President, the External Affairs Minister and the National Security Advisor to China. On the invitation of the Chinese Foreign Minister, EAM visited China from 5-8 April 2010 where she inaugurated the Festival of India in China on 7 April, 2010. During the visit the two countries also signed an agreement on establishment of a Direct Secure Telephone Link between the Prime Minister of India and Premier of China. President of India paid a state visit to China from 26 to 31 May 2010. During the visit the President inaugurated and dedicated the Indian style Buddhist temple in the precinct of the famous White Horse Temple at Luoyang in Henan Province. The President also visited the Shanghai World Expo-2010 and unveiled the bust of Rabindranath Tagore at a triangular park in Shanghai. Three MoUs to enhance cooperation in the area of civil services and sports, visa for aircrew were signed. National Security Adviser visited China as Special Envoy to Prime Minister from 3-6 July 2010. From the Chinese side the Vice Premier of China, Mr. Hui Liangyu visited India from 25-28 January 2010. This was the first high level visit from China to India in 2010. During his visit he called on the Prime Minister. These frequent high level contacts also included the meeting of PM and the Chinese President Hu Jintao in Brasilia on 15 April 2010 on the sidelines of the BRIC Summit; meeting between PM and Chinese Premier Wen Jiabao in Copenhagen on 18 December 2009 on the sidelines of the CoP-15 on Climate Change; the meeting of EAM with Chinese FM Yang Jiechi on the sidelines of the Russia-India-China trilateral Foreign Ministers Meeting in Bengaluru on 27 October, 2009; and CI&M's meeting with the Chinese Commerce Minister on 19 January 2010 in Beijing. The institutionalized dialogue

mechanisms between India and China covering a wide range of issues showed a steady progress during the year. With convergence of interest on issues such as Doha Round of WTO negotiations, climate change, G-20, global financial crisis etc., both countries have continued to interact constructively on global issues. China is now India's largest trading partner, with the total bilateral trade being US\$ 51.8 billion in 2008. The trade volume dipped slightly in 2009 to US\$ 43.27 billion. However, the trade has recovered this year as it touched US\$ 20 billion in the first five months of 2010.

Iran: The visit to India by Foreign Minister of Iran, Mr. Manouchehr Mottaki from 16-17 November 2009 continued the sequence of exchange of high level visits. 2009-10 also saw continued bilateral exchanges in a number of areas like energy, trade, commerce and industry, banking, culture, media and broadcasting, etc as well as consultations on regional and international issues of mutual interest, thus maintaining the momentum of bilateral relations. Bilateral trade grew by 30.04 per cent in 2008-09 in comparison to the previous year, and touched US \$ 13.146 billion.

Maldives: Bilateral relations between India and the Maldives continued to be strengthened by several high-level exchanges. President Mohammed Nasheed of the Maldives visited India in October 2009 and again in January 2010. Special Envoy of the President Ibrahim Zaki and the Foreign Minister of the Maldives Dr. Ahmed Shaheed also visited in August 2009 and July 2009 respectively. Vice President of the Maldives Mohammed Waheed visited India from 18-24 February 2010 at the invitation of the Vice President of India. Defence Minister Shri A.K. Antony visited Maldives in August 2009, wherein both countries identified various areas of cooperation in the security and defence sectors and agreed to enhance cooperation in the area of coastal security and maritime surveillance. National Security Adviser, Shri M.K. Narayanan visited Maldives in June 2009 and Foreign Secretary in January 2010. The India-Maldives Joint Coast Guard Exercises 'DOSTI X' were held of Male in December 2009 and the 'EKUVERIN' exercises in October 2009.

Myanmar: Relations between India and Myanmar continued to develop their multi-dimensional character. The momentum of high-level visits was maintained. External Affairs Minister Shri S.M. Krishna visited Myanmar for the BIMSTEC Ministerial Meeting in December 2009 and met PM of Myanmar General Thein Sein. Foreign Secretary, Smt. Nirupama Rao visited Myanmar for Foreign Office Consultations from 28 February-2 March 2010 where a range of areas of cooperation are likely to be discussed. Chairman, Combined Officers Staff Committee (CoSC) and Chief of Army Staff (CoAS), General Deepak Kapoor visited Myanmar in October 2009. Vice Admiral Soe Thane, Myanmar's Minister for Industries (No. 2) visited India in December 2009. The Tamu-Keygone-Kalemyo stretch of road, built with Indian assistance, was handed over to the Government of Myanmar in October 2009. Work on the Kaladan Multi Modal Transit Transport Project and the India-Myanmar Industrial Trading Centre continued apace. Both countries continued to enhance cooperation in the areas of energy, oil and natural gas, power, IT, infrastructure development, telecommunication and agriculture.

Nepal: India and Nepal enjoy very close and friendly relations, which continued to grow and strengthen during the year. We attach highest priority to strengthening the existing understanding and cooperation with Nepal. In this spirit, India continued close consultations with the Government of Nepal and the major political parties with a view to support Nepal's transition to a democratic, stable, peaceful and

prosperous State. The bilateral relationship was characterized by extensive interaction and high-level visits. The visits included the visit of Prime Minister Madhav Kumar Nepal to India in August 2009, Minister of External Affairs S.M. Krishna to Nepal in January 2010 and President Dr. Ram Baran Yadav of Nepal to India in February 2010.

The Government of India assisted in the development of projects in areas like infrastructure, education, health, rural and community development. Strengthening of border infrastructure including development of integrated check-posts and construction of cross-border road and rail links along the India-Nepal border was accorded high priority.

Pakistan: In the wake of the terrorist attack on Mumbai, there has been a pause in the Composite Dialogue process. Government's expectation that Pakistan acts with purpose against the perpetrators of the Mumbai attack. A wider conspiracy behind the attack had been conveyed on several occasions, including at the highest level. India's concerns were suitably conveyed on occasions of the meeting of Prime Minister Dr. Manmohan Singh with President of Pakistan Mr. Asif Ali Zardari on the sidelines of the SCO-BRIC Summit in Yekaterinburg on 16th June, 2009 and in Prime Minister's meeting with the Prime Minister of Pakistan at Sharm-el-Sheikh on 16th July, 2009 on the sidelines of NAM Summit. Similar views were also conveyed by External Affairs Minister in his meetings with the Foreign Minister of Pakistan on the sidelines of G-8 Outreach meeting on 26th June, 2009 in Trieste (Italy), and later on the sidelines of UNGA in September 2009 in New York.

At India's invitation, Foreign Secretary level talks between the two countries were held in New Delhi on 25th February, 2010. This was in the context of Government's desire to ensure communication between the two countries, to address the core concerns relating to terrorism directed against India, and pending humanitarian issues.

Despite the terrorist attack on Mumbai and ongoing investigations into the involvement of David Coleman Headley and Tahawwur Hussain Rana in various terrorist acts, including the Mumbai terrorist attack and continued cross-border infiltration from Pakistan and cease-fire violations by Pakistan across the Line of Control and International Border, people-to-people contracts were allowed to continue. A number of Pakistani cultural, academic and trade delegations visited India. Government also facilitated visits to places of pilgrimage under the Protocol on Visits to Religious Shrines (1974). India's bilateral trade with Pakistan in 2008-09 was US \$1.78 billion. Quantitative studies estimate that potential for two way trade between India and Pakistan can exceed its rather unsatisfactory current level by ten times.

On 1st January, 2010, India and Pakistan exchanged through diplomatic channels, simultaneously at New Delhi and Islamabad, the lists of nuclear installations and facilities covered under the Agreement on the Prohibition of Attack against Nuclear Installations and Facilities between India and Pakistan.

Sri Lanka: Bilateral relations between India and Sri Lanka continued to progress in all spheres. A momentum of high level interaction was maintained. President Mahindra Rajapaksa came to India on a state visit from June 8-11, 2010. During the visit, both sides issued the India-Sri Lanka Joint Declaration encompassing the entire gamut of bilateral relations including trade, services and investment, development cooperation, science and technology, culture and education. Also included the Joint Declaration was India's commitment for ongoing rehabilitation and resettlement of Internally Displaced People (IDPs) and reconstruction of Northern and Eastern Sri Lanka.

With the end of hostilities there, India has offered all possible assistance to help in relief, rehabilitation, early resettlement and long-term reconstruction of Sri Lanka. Prime Minister announced an amount of ₹ 500 crores for relief and rehabilitation. An Indian field hospital functioned for six months from March-September 2009, and treated more than 50,000 patients. Indian assistance also included seven de-mining teams, 5360 tones of shelter material, 70,000 agricultural packs, gifting of 4 lakh cement bags and 55 buses and taking up of civil infrastructure projects like railways and power generation through Lines of Credit. Further, during the visit of Sri Lankan President, India has committed to assist Sri Lanka in construction of 50,000 for the IDPs in Northern and Eastern Provinces of Sri Lanka. India has continued to emphasize that the way forward lies in a peacefully negotiated political settlement within the framework of a united Sri Lanka, acceptable to all the communities including the Tamils.

SOUTH EAST ASIA AND THE PACIFIC

In pursuance of our "Look East" policy, India continued to improve and consolidate its relations with countries in the South East Asia and the Pacific. Multi-faceted relationships continued to develop with the countries in the region, both in the bilateral and multilateral context. India's trade with most of the countries in the region showed significant improvement during the year despite the global financial crisis. Operationalization of the India-ASEAN FTA in Goods from 1st January, 2010 is going to further boost our economic relations. India attended the 21 Post-Forum Dialogue (PFD) Partners Meeting in Cairns, Australia (7 August 2009) after the 40th Pacific Islands Forum (PIF) Summit meeting there. Defence and cultural cooperation between India and the countries in the region also continued to develop further. A 'Festival of India' was launched in Indonesia in October 2009, and a new Indian Cultural Centre was inaugurated in Bangkok in September 2009.

The period witnessed many high level visits. Prominent incoming visits include that by Vice President of Vietnam (September-October, 2009); Prime Minister of Australia (November, 2009); Prime Minister of Malaysia, (January 2010); Deputy Prime Ministers of Australia (August 2009), Thailand (October 09) and Vietnam (December 2009) and Foreign Ministers of Australia (October, 2009 and March 2010) and Thailand (December 2009). In addition, the King of Tonga (September 2009), Thai Princess Kahachakri Sirindhorn (August 2009), Minister Mentor Lee Kuan Yew (December 2009) and Senior Minister Goh Chok Tong (March 2010) from Singapore and Secretary of Foreign Affairs of Philippines Ramulo (March 2010) also visited India. From the Indian side, Prime Minister Dr. Manmohan Singh visited Thailand for the ASEAN-India and EAS Summits in October 2009. External Affairs Minister Shri S.M. Krishna visited Australia (August 2009), Thailand (July 2009) and Singapore (March 2010) for the ASEAN-India and ARF Ministerial Conferences.

While pursuing efforts to strengthen its relationship with the region, the Government of India also took serious note of attacks on Indian community in Australia over the past few months especially since May 2009. This issue has been taken up including at the highest levels during visits of high level dignitaries. Government of Australia has been formally requested for complete statistics regarding number of attacks and conviction of perpetrators at the earliest. The Government of India is closely following the situation and has issued its latest advisory on 5th January, 2010 to Indian students studying in Australia as well as those planning to study there to take certain basis precautions.

India continued to provide assistance to Cambodia, Laos, Vietnam and Pacific Island countries in their development efforts. External Affairs Minister Shri S.M. Krishna announced an increase in our annual Grant-in-aid for each at the 14 PIF Countries from US\$ 100,000 to US\$ 125,000. India is cooperating extensively under ITEC partnership programme and has increased number of scholarship slots for countries of the region to about 350. Another areas of cooperation has been disaster relief to the countries in the region. India extended humanitarian assistance to the Philippines in the aftermath of natural disaster. India's growing profile has attracted countries in the South East Asia and Pacific region to bolster closer engagement at the regional and multilateral fora such as ASEAN, BIMSTEC, EAS, MGC and ARF.

EAST ASIA

In keeping the India's "Look East Policy", strengthening of bilateral ties with the East Asian countries has been a foreign policy priority for India. During the year, efforts were made to sustain the momentum in carrying forward the steady and qualitative transformation of India's relationship with these countries through renewed high level contacts and exchanges. The highlight was two Presidential State Visits to India from the region (Presidents of Mongolia and Republic of Korea visited in September 2009 and January 2010 respectively), during which a number of bilateral agreements were concluded to expand functional cooperation in diverse spheres. Another important visit to India was that of the then Japanese PM Mr. Yukio Hatoyama in December 2009 which provided further impetus to multi-faceted relationship between India and Japan. A significant development has been the understanding reached with major players in the region to transcend relations beyond the bilateral in developing a coordinated approach to regional and multilateral issues of common concern. India is increasingly being booked upon as an integral part of the emerging architecture in East and South East Asia.

Japan: India's relations with Japan have undergone a significant transformation in recent years. An 'India-Japan Strategic and Global Partnership' provides for a detailed plan of action based on the five pillars of cooperation—political, defence and security cooperation; comprehensive economic partnership; science and technology initiative; people to people exchanges and cooperation in regional and multilateral issues. The two sides have maintained the practice of annual summits since 2006.

Strong momentum of high-level exchanges has been maintained with Japan. The Sharp increase in high-level exchanges has been accompanied by more broad-based exchanges of business delegations, parliamentary delegations and interactions between provincial and local governments of both countries. Prime Ministers of the two countries have met regularly on the sidelines of important international summits, including on 2nd April, 2009 on the margins of the G-20 Summit in London, on 10th July, 2009 on the sidelines of the G-8 Summit in L'Aquila (Italy), on 25th September, 2009 on the sidelines of the G-20 Summit in Pittsburgh and on 24th October, 2009 on the sidelines of the East Asia Summit in Hua Hin (Thailand). The last meeting between PM and the newly elected Prime Minister of Japan, Mr. Naoto Kan, was in Toronto on 27th June, 2010 on the sidelines of the G-20 Summit in Toronto.

The then Japanese PM Mr. Yukio Hatoyama's December 2009 visit to India for the Annual Summit provided further impetus to comprehensive engagement between India and Japan and imparted more depth to India-Japan Strategic and Global Partnership. Both Prime Ministers have committed to enhancing security cooperation between India and Japan according to the Action Plan.

There have been a number of Ministerial visits between India and Japan. External Affairs Minister visited Japan for the third round of Strategic Dialogue in July 2009. The two Defence Ministers have exchanged visits in November 2009 and April 2010. Minister of Road Transport and Highways visited Japan in January 2010. Japan's Minister for Economy, Trade and Industry visited India in April-May 2010 for Ministerial-level Energy Dialogue (with Deputy Chairman of the Planning Commission) and Policy Dialogue (with Commerce and Industries Minister).

Bilateral economic relations have vast potential for growth. The flagship projects between India and Japan, namely Western Dedicated Freight Corridor (DFC) and Delhi-Mumbai Industrial Corridor (DMIC), have progressed well, with the signing of the Main Loan Agreement for Phase-I of DFC in March 2010 and conclusion of the DMIC Project Development Fund Loan in December 2009. The pace of investments has picked up in recent years. As many as 627 Japanese companies are operating in India as against some 300 in 2005. Foreign Direct investment (FDI) went up ten fold in 2009 as compared to 2006. Japan stands as the sixth largest investor in India. For the seventh consecutive year India is the single largest recipient of Japanese Official Development Assistance (ODA). For FY 2009-10, total ODA was 218.2 billion Yen, which represents about 30 per cent of Japan's global ODA. In the energy sector, India and Japan are cooperating in the fields of new and renewable energy, energy efficiency, clean coal, power generation etc. and have begun negotiations in June 2010 on civil nuclear cooperation.

Republic of Korea (ROK): Indian partnership with ROK has become perceptibly more intense and diversified in recent years. A number of high level visits, signing of the Comprehensive Economic Partnership Agreement (CEPA) (August 2009), increasing economic and commercial interactions and expanding exchanges in the field of art and culture have been the high points of India-ROK bilateral ties during the period. India and ROK exchanged a number of high-level visits during the year. The ROK Minister for Foreign Affairs and Trade, Mr. Yu Myung-hwan, visited New Delhi on 23rd June, 2009, and held wide-ranging discussions with External Affairs Minister Shri S.M. Krishna, India-ROK cooperation in the field of defence and security continued apace. ROK President Lee byung-bak paid a State Visit to India from 24-27th January 2010. He was Chief Guest at our Republic Day celebrations this year. While our economic interaction provides the underpinning for India-ROK relations, our partnership has also spread to other fields such as science and technology and space cooperation. Therefore, India-Republic of Korea relations have been elevated to a "Strategic Partnership", External Affairs Minister Shri S.M. Krishna, co-chaired the 6th Session of the Indo-ROK Joint Commission in Seoul on 18th June, 2010.

Mongolia: India's centuries-old and cordial relationship with Mongolia continued to develop and diversify further during the year. Bilateral cooperation now covers the fields of defence and security, economy, education and culture. The two sides exchanged a number of high level visits during the year. Smt. Preeti Kaur, Minister of State for External Affairs, visited Mongolia from 17-19th June, 2009 to represent Government of India at the swearing-in ceremony of the new Mongolian President Mr Ts. Elbegdorj. The newly elected President of Mongolia paid a State Visit to India from 13-16th September, 2009. During the visit, the two sides agreed to upgrade the level of bilateral relations to that of "Comprehensive Partnership". During the year there was a significant progress in India-Mongolia cooperation in the field of defence. The fifth India-Mongolia Joint Military Exercises were held in Mongolia from 14-27th

September, 2009. The second India-Mongolia Joint Cooperation Committee meeting was held at New Delhi on 11th January, 2010. Smt. Meira Kumar, Speaker, *Lok Sabha*, led a Parliamentary delegation, including six Members of Parliament, to Mongolia from 27-30th June, 2010. She held bilateral talks with her counterpart, the Chairman of the State Great Hural and had a meeting with Prime Minister S. Batbold of Mongolia. During her meeting with the Mongolian Speaker, the two sides discussed enhanced parliamentary cooperation.

Democratic People's Republic of Korea (DPRK): Relations between India and Democratic People's Republic of Korea (DPRK) continued to be cordial with a focus on humanitarian and human resource development assistance. Exchanges in the area of culture, sports and education continued to make progress during the year. Cultural Exchange Programme 2020-12 between the two sides was signed in March 2010.

EURASIA

Significant advances were made in the development of India's bilateral relations with Russia, Ukraine, Belarus, Central Asia and Caucasian countries through landmark high level visits, conclusion of bilateral agreements, multilateral and bilateral engagements, development projects and cultural events. Some of the significant events during the last one year were Russian Prime Minister's visit to the Russian Federation for the Annual Summit Meeting in December 2009 and to Yekaterinburg in June 2009 for the SCO and BRIC Summits, the State Visit of the President of India to the Russian Federation and Tajikistan in September 2009, Visit of the President of Turkmenistan Mr. Gurbanguly Berdimuhamedov in May 2010, the Trilateral Meeting of Foreign Ministers of India, Russia and China in Bengaluru in October 2009 and EAM's visits to Belarus and Turkmenistan in September 2009 and to the Russian Federation and Uzbekistan in October 2009.

India and Russia continued to further strengthen their multi-faceted strategic partnership. Cooperation in key areas such as defence, space research, science and technology, and energy security (including hydrocarbons and nuclear energy) has been intensified. President Smt. Pratibha Devisingh Patil's State Visit to Russia from 2-6 September, 2009 was a significant event in the framework of the "Year of India in Russia" celebrations. During Prime Minister's visit to Moscow from 6-8 December 2009 for the Annual Summit, Six important agreements were signed apart from the adoption of a joint declaration on 'further deepening the strategic partnership' that reflects the shared vision of the two countries on many global issues. The agreements that were signed during the visit include (i) Agreement between the Government of the Republic of India and the Government of the Russian Federation on the Programme for Military and Technical Cooperation (MTC) during the period 2011-2020; (ii) Agreement between the Government of the Republic of India and the Government of the Russian Federation on After Sales Support for the Russian Arms and Military Equipment supplied to the Republic of India; (iii) Protocol to the Agreement of the Government of the Republic of India and the Government of Russian Federation on Cooperation in Development and Production of Multi-Role Transport Aircraft of 12th November, 2007; (iv) Agreement between the Government of the Republic of India and the Government of the Russian Federation on Cooperation in Peaceful Uses of Atomic Energy (initialed); (v) Programme of Cultural Exchanges between the Government of the Republic of India and the Government of the Russian Federation for the Years 2010-12; and (vi) A Dollar Agreement for extension of a Line

of Credit of US\$ 100 million by Exim Bank to Vnesheconombank for boosting export of Indian goods and technology products to Russia.

Russian Prime Minister Mr. Vladimir Putin paid a brief working visit to India on 12th March, 2010 at the invitation of Prime Minister. Five agreements were signed during the visit: (i) Inter-Governmental Agreement on Peaceful use of Atomic Energy (which was initiated during the Summit Meeting in Moscow in December 2009); (ii) The Road Map on Serial Construction of Russian-designed nuclear power plants in India; (iii) MOU on Joint Production of GLONASS ground support equipment including receivers and chipsets in India; (iv) MOU on Cooperation in the area of Mineral Fertilizers; and (v) Agreement on the annual purchase of di-ammonium phosphate by Indian companies IFFCO and Indian Potash Ltd. from Russian Company PhosAgro.

Other important Ministerial visits from India during the last one year included that of Commerce and Industry Minister Shri Anand Sharma (29 September, -3rd October, 2009; and 17-19th June, 2010), Minister of Agriculture Shri Sarad Pawar (24-27th March, 2010), Minister of Petroleum and Natural Gas Shri Murli Deora (2-6th September, 2009), Defence Minister Shri S.M. Krishna (20th-22nd October, 2009). From the Russian side, Deputy Prime Minister and Co-Chair of the India-Russia Inter-Governmental Commission on Trade, Economic, Scientific, Technological and Cultural Cooperation (IRIGC-TEC) Mr. Sergel S. Sobyenin visited India twice (9-12 November 2009; 15-16 February 2010). Russian Minister of Industry and Trade Mr. Viktor Khristenko visited India from 16-19 February 2010. Russian Foreign Minister Mr. Sergei Lavrov visited Bengaluru for the 9th India-Russia-China Trilateral Foreign ministers Meeting on 26-27th October, 2009. The Year 2009 was celebrated as the "Year of India in Russia" with the organisation of more than 150 events showcasing Indian art and culture, paintings and artifacts, achievements in the field of science and technology etc. in Russia.

During the year, relations with Central Asian Republics and other Eurasian Countries continued to strengthen and were reinforced by several high level bilateral visits.

President Smt. Pratibha Devisingh Patil paid a State Visit to Tajikistan from 6-8 September 2009, marking the first-ever visit by an Indian Head of State to the Central Asian region. President attended the National Day celebrations of Tajikistan as Guest of Honour.

External Affairs Minister Shri S.M. Krishna also paid an official visit to Turkmenistan on 18-19 September 2009 during which he called on the Turkmen President, Mr. Gurbanguly Berdimuhammadov, and signed a programme of Cooperation between the two foreign offices with his Turkmen counterpart. Smt. Preneet Kaur, Minister of State (External Affairs) co-chaired the Third Session of the Inter-Governmental Commission held at Ashgabat on 8-9 February 2010. The co-chair from the Turkmen side was Mr Rashid Meredov, Deputy PM and Foreign Minister. A Joint Protocol was signed on conclusion of the meeting. President Mr Gurbanguly Berdimuhamedov paid a State visit to India on 24-26 May 2010. During the visit, the following five agreements were signed: (i) Cultural Exchange Programme; (ii) Agreement on Trade and Economic Cooperation; (iii) Agreement on Cooperation in the field of Science and Technology; (iv) Agreement on Exemption of Visa Requirements for holders of Diplomatic Passports; and (v) Education Exchange Programme.

External Affairs Minister, Shri S.M. Krishna paid an official visit to Uzbekistan

on 22-23 October 2009 where he called on the President of Uzbekistan, Mr. Islam Karimov and held talks with his Uzbek counterpart. EAM visited Tashkent again on 10-11 June 2010 for attending the SCO Summit. During the visit, he also called on Uzbek President Mr. Islam Karimov, Finance Minister Shri Pranab Mukherjee visited Tashkent on 2-3 May 2010 for the 43rd Annual Meeting of the Board of Governors of the Asian Development Bank.

External Affairs Minister, Shri S.M. Krishna, accompanied by a delegation of leading private sector CEOs, visited Kazakhstan on 11-13 May 2010 and held fruitful discussions with President Mr. Nursultan Nazarbayev, Prime Minister Mr. Karim Masimov and Foreign Minister Mr. Kanat Saudabayev.

Minister of State for Commerce and Industry Shri Jyotiraditya Scindia hosted the Kyrgyz Minister of External Industry and Trade for bilateral Joint Commission Meeting on 5th March 2010. Following ethnic disturbances in the cities of Osh and Jalal-Abad in Kyrgyzstan which left thousands of people homeless, India sent two IL 76 aircraft on 2nd and 8th July 2010 to Bishkek, carrying humanitarian aid, consisting of food items, tents and medicines. Earlier, over 100 Indian students were evacuated successfully from the strife-torn cities of Osh and Jalal-Abad.

Georgia opened its resident Mission in New Delhi in February, 2010. Foreign Office consultations with Georgia were held in New Delhi on 29th March, 2010. The Deputy Foreign Minister of Georgia, Mr. Alexander Nalbandov visited New Delhi on 29-30 March 2010 and signed three agreements during his visit.

The first session of the India-**Azerbaijan** Inter-Governmental Commission on Trade, Economic, Scientific and Technological Cooperation was held on 26th November, 2009 in New Delhi, co-chaired on the Indian side by the MoS for Commerce and Industry, Shri Jyotiraditya Scindia and on the Azeri side by Mr. Huseyngulu Bagirov, Minister of Ecology and Natural Resources.

External Affairs Minister, Shri S.M. Krishna visited **Belarus** on 16-17 September 2009 marking the first-ever visit by an External Affairs Minister of India to Belarus, EAM called on the President of Belarus Mr. Aleksander Lukashenko and reviewed bilateral relations with his counterpart.

THE GULF

India's relations with the Gulf region (GCC countries, Yemen and Iraq) were further expanded and strengthened in political, economic, strategic and cultural arena, tapping the opportunities for cooperation in trade, investment, energy and manpower, building partnership through high level visits, streamlining trade commercial and manpower framework, establishment institutional linkages in form of India-GCC political dialogue, strategic dialogue and consultation mechanism. New emphasis on energy diplomacy and investment partnership is the highlight of the year. India has successfully bid for all blocks in **Yemen, Qatar** and **Oman**. Efforts are going on to set up joint ventures in downstream petrochemicals, fertilizer and energy intensive industries. India and **Qatar** signed an investment agreement in November 2009 to the tune of US\$5 billion realizing the investment potential of the region. Similar understanding with **Oman** to the tune of USD 100 million has been finalized. Investment and project partnership is the focal point in the year and second India-Arab investment project conclave was organized in February 2010 which witnessed nine ministerial participation and more than twenty business delegations from the region and beyond.

Gulf region has emerged as our major trading partner after USA, with annual two-way trade nearing US\$ 100 billion in 2009. UAE emerged as our largest trading partner. The region collectively hosts the largest expatriate Indian community exceeding 5 million with remittances estimated around US \$30 billion per annum. Nearly 75 per cent of our crude oil requirement is met from this region which plays a crucial role in our energy security.

India and Gulf have significantly enhanced high level exchanges leading to better understanding. From the Indian side, Prime Minister Dr Manmohan Singh paid a highly successful visit to Saudi Arabia from 27 February-1 March 2010 at the invitation of their King during which 10 agreements/MoUs including Extradition Treaty, Agreement, Culture as well as on cooperations in outer space etc were signed. The two leaders signed the landmark Riyadh Declaration which outlines the contours of cooperation between the two countries. Vice President Shri Hamid Ansari and External Affairs Minister Shri S.M. Krishna visited **Kuwait** in April 2009 and February 2010 for the Joint Commission Meeting. MoS for External Affairs Dr. Shashi Tharoor visited Oman (February 2010), UAE and **Bahrain** (October 2009) and **Yemen** (June 2009) leading Indian delegation to IOR-ARC Conference. Deputy Chairman, Planning Commission Shri Montek Singh Ahluwalia led the Indian delegation for the second India-Oman Joint Working Group in April 2009. Principal Secretary to PM visited **Qatar** in November 2009 for the Indo-Qatar Joint Monitoring Mechanism. Several important visits from the region also reinforced the bilateral relationships i.e. Oman's Minister of Oil and Gas (May 2009); Saudi Trade Minister (August 2009); UAE Foreign Minister (June 2009); Bahrain Foreign Minister (February 2010); Iraq, UAE and Qatar Ministers of Trade (February 2010).

WEST ASIA AND NORTH AFRICA

India's traditionally strong and diverse relations with countries in the West Asia and North Africa (WANA) region were further strengthened in a variety of ways. Sustained political interaction with countries of the region was exemplified by meetings between the Prime Minister and the President of **Egypt** and with the President of the **Palestinian** National Authority. Deputy Chairman, *Rajya Sabha*, represented India at the 40th Anniversary celebrations of the Great *Al Fatah* Revolution of Libya. Various other high level visits were also exchanged, among others, with **Egypt, Israel, Jordan, Morocco, Palestine, Sudan** and **Syria**. During the year, India significantly increased its annual contribution to the United Nations Relief Agency for Palestine Refugees in the Near East (UNRWA) from US \$ 20,000 to US \$ 1 million. Recent events include the holding of India-Syria Joint Commission meeting in Damascus (June, 2010) and the successful launch of an **Algerian** satellite, ALSAT-2 by ISRO on board its PSLV Vehicle (July 12, 2010).

AFRICA

India's engagement with Africa continued at a rapid pace with several incoming and outgoing visits at Ministerial level. Interactions with African leaders were also held on the sidelines of major multilateral events. 47 out of the 53 African Union countries have joined the Pan-African e-Network Project of the Government of India and started availing the tele-education and tele-medicine facilities. Workshop for the African countries on Pan-African e-Network Project was held on 12-13 August, 2009 in New Delhi. Lines of Credit for infrastructure development projects and grants to meet the immediate needs in thrust sectors of health, education, capacity building were made

available. African countries continued to avail the ITEC scholarship slots and the ICCR-sponsored higher education scholarships. Pursuant to its policy of encouraging public-private partnership. Ministry has encouraged simultaneous presence of business delegations during Ministerial visits to African countries and also arranged for interaction of visiting foreign government dignitaries with Indian businessmen through the commerce and industry bodies. Confederation of Indian Industry had organized the India-Africa Business Partnership Conclave in Lagos from 2-4 August, 2009 and a Business mission in Nairobi from 5-7 August, 2009. FICCI organized the '*Namaskar Africa*' conference and exhibition in Lagos from 14-15 January, 2010, 6th CII-EXIM Bank Conclave on India-Africa Project Partnership was held on 14-16 March, 2010 at New Delhi where African and Indian official and business delegates participated. Ghana was the partner country. Vice President John Mahama had led the Ghanaian delegation. Prime Minister Gilbert Fossoun Hounbo, had led the Togolese delegation. Trade with Africa has gone up from US \$ 5.5 billion in 2001-02 to more than US \$39 billion in 2008-09.

Shri Mohammad Hamid Ansari, Vice President of India, represented India at the inauguration ceremony of Dr. Jacob Zuma as the President of South Africa in May 2009. Other important visits from India to **South Africa** included: Parliamentary delegation's visit led by Shri Karia Munda, Deputy Speaker of Lok Sabha to South Africa (April 2009); Commerce and Industry Minister Shri Anand Sharma's visit to South Africa (August 2009); Minister of State (IC) for Science and Technology, Parliamentary Affairs, Earth Sciences and Personnel and Training, Shri Prithviraj Chavan's visit to Durban (October 2009); Minister of State (IC) for Coal, Statistics and Programme Implementation, Shri Sriprakash Jaiswal visit to Durban (August 2009).

Vice President also visited **Zambia, Malawi and Botswana** from 5-11 January, 2010. MoS for External Affairs Dr. Shashi Tharoor went on bilateral visit to Mozambique from 13-14 January, 2010. MoS Dr. Tharoor represented India as an observer at the African Union Summit in Addis Ababa (27-30 January, 2010). Joint Action Plan for the follow up of the India Africa Forum Summit 2008 decisions was also discussed with African Union.

Minister of State for Health and Family Welfare Shri Dinesh Trivedi visited Addis Ababa (**Ethiopia**) in October 2009 and the Speaker of Lok Sabha, Smt. Meira Kumar visited Arusha (**Tanzania**) from 28 September-6 October, 2009. Prime Minister Dr. Manmohan Singh's meeting with Dr. Navin Ramgoolam, Prime Minister of the Republic of Mauritius in Port of Spain in November 2009, on the margins of CHOGM 2009 and MoS Dr. Shashi Tharoor's visit to **Mauritius** on the 175th Anniversary event commemorating the arrival of Indian indentured labours to Mauritius 1-3 November) were notable events in bilateral relations. President of **Namibia**, Mr. Hifikepunye Pohamba paid a State Visit to India (30 August-3 September 2009) and Mr. Peter Mizengo Pinda, Prime Minister of Tanzania visited India in September 2009. **Uganda's** Minister of State for Internal Affairs Mr. Matia Kasaija and minister of State for Agriculture Mr. Rwamirama K. Bright, visited India in June and October 2009 respectively. India participated in the annual Harare International Festival for Arts (HIFA) held in Harare (**Zimbabwe**) from 1-6 May, 2009, Prof. W. Ncube, Minister of Commerce and Industry of **Zambia** visited India from 3-4 September, 2009 for participating in the informal Ministerial Meeting on the Doha Round of WTO negotiations.

Dr. Shashi Tharoor, MoS for External Affairs visited **Liberia** on 16-19 September, 2009 when he called on President Ms. Ellen Johnson Sirleaf. Protocol on Foreign

Office Consultations was signed. He also met with the 125-member Female Formed Police Unit (FFPU) from India which is serving as part of the UN peacekeeping team, giving security cover to the Liberian President.

Dr. Tharoor made a brief halt at Accra (**Ghana**) on 19th September, 2009 when he called on President Mr. John Evens Atta Mills. Dr. Tharoor led the Indian delegation at the first meeting of the India-Benin Joint Commission at Cotonou (**Benin**) on 22-23 October, 2009. Shri Anand Sharma, Commerce and Industry Minister visited Nigeria on 14-15 January 2010 for the Namaskar Africa Conference organised by FICCI. Shri Murali Deora, Minister of Petroleum and Natural Gas visited **Nigeria** on 25-26 January, 2010 and **Angola** on 27-28 January, 2010. An MOU on cooperation between ONGC Videsh Limited and SONANGOL was signed.

Smt. Preneet Kaur, MoS for External Affairs had represented Government of India at the 50th Anniversary Independence Celebrations of **Democratic Republic of Congo** on 29-30 June, 2010.

Mr. Moctar Ouane, Minister of Foreign Affairs and International Cooperation of the Republic of **Mali** visited India from 8-13 October 2009 and held official talks with Dr. Shashi Tharoor, MoS for External Affairs. Protocol on Foreign Office Consultations and Agreement on Political, economic, scientific, technical and cultural cooperation was signed.

Mr Alex Thambawe Mwamba, Minister of Foreign Affairs of **Democratic Republic of Congo** visited India from 27-30 October, 2009 and held official talks with External Affairs Minister, Shri S.M. Krishna. Agreement on cultural Cooperation was signed.

Mr. Jose Brito, Minister of Foreign Affairs, Cooperation and Communities of the Republic of **Cape Verde** visited India from 18-21 November, 2009 and held official talks with Dr. Shashi Tharoor, MoS for External Affairs. Protocol on Foreign Office Consultations was signed.

Dr. Carlos Alberto Pires Tiny, Minister of Foreign Affairs, Cooperation and Communities of the Republic of **Sao Tome and Principe** held official talks on 1 December, 2009 with Dr. Shashi Tharoor during his visit to India. Protocol on Foreign Office Consultations was signed.

Mr. Basile Ikoueble, Minister of Foreign Affairs of the **Republic of Congo** held official level talks with Dr. Shashi Tharoor (17th March, 2010) during his visit to India from 13-19 March, 2010. Protocol on Foreign Office Consultations was signed.

The second meeting of the India—Senegal Joint Commission on economic, technical, political and cultural cooperation was held in New Delhi on 17th March, 2010. The Joint Commission was co-chaired by Dr. Shashi Tharoor, MoS for External Affairs and Mr. Mdicke Niang, Minister of Foreign Affairs of the Republic of **Senegal**.

Mrs. Olubanke King Akerele, Minister of Foreign Affairs of the Republic of **Liberia** held official talks with Dr. Shashi Tharoor, MoS for External Affairs on 18th March, 2010 at New Delhi.

EUROPE

India-EU strategic partnership received fresh impetus during the year with the successful conclusion of the 10th India-EU Summit held in New Delhi on 6th November, 2009 under the Swedish Presidency of the EU. At the delegation level talks both sides reviewed bilateral relations in the context of the India-EU Strategic Partnership and

reviewed multilateral issues of mutual interest such as international terrorism, climate change, international financial crisis, etc. A Joint Statement issued at the end of the Summit, reflects the ongoing close cooperation between India and EU in diverse areas of mutual interest including trade and investment, science and technology, education, civil nuclear energy, renewable energy, space, culture, security etc. There is also very good cooperation at the bilateral level in diverse areas with a number of individual Member States of the EU.

The President Smt. Pratibha Devisingh Patil paid a State Visit to **UK** at the invitation of the Queen of UK in October 2009. She also made a first ever State Visit to **Spain** in April 2009. Prime Minister Dr. Manmohan Singh visited **France** in July 2009 as the Chief Guest at the French National Day celebrations. The Prime Minister had interactions with the leaders of UK, France, **Germany** and **Italy** on the sidelines of multilateral events like G-20 (April and September 2009, June 2010), G8 (July 2009) and CHOGM (November 2009). Speaker of the *Lok Sabha*, Smt. Meira Kumar participated in the G8/G5 Speakers' Conference in Rome in September 2009 and visited Luxembourg in June 2010. Former President Dr. A.P.J. Kalam visited **Ireland** in June 2009.

Other Ministerial level visits and senior official level visits took place during the year and contributed to the bilateral ties. Parliamentary exchanges and civil society dialogue between India and EU countries remained vibrant. Business-to-business level interactions were engaged fruitfully during the year. Port Minister of Maharashtra visited **Belgium** on 28th June 2010 accompanied by the MoS Ports and a nine-member delegation.

Incoming high-level visits during the year including the visit of the **German** President Horst Koehler in February 2010 and the Crown Prince and Princess of Spain in November 2009. The Crown Prince and Princess of Belgium visited India in March 2010.

There is a substantial Indian Diaspora in EU Member States. In recognition of this fact, a mini *Pravasi Bhartiya Diwas* (PBD) was held in **The Hague** in September 2009.

An MoU for establishment of Indian Council for Cultural Relation's Long-Term Chair for the study of Contemporary India between ICCR and Leiden University, **Netherlands** was signed on 3rd June, 2010. The Indian cultural Festival "*Namaste France*" launched on 14th April, 2010, will go on till July 2011, and will feature events covering the entire diversity of Indian culture including art, music, dance, fashion, tourism, films, and literature as also business and education.

India's relations with the **Nordic** countries and countries of **Central and Eastern Europe** have been traditionally friendly and cordial. This region includes countries with remarkable ethnic, geopolitical, economic and cultural diversity. The approach adopted for engagement with the region attempts to take this diversity into account and areas on mutual strengths and needs. Central and Eastern Europe countries have a tradition of strengths in S&T in certain areas. Nordic countries have achieved superior technology in shipbuilding, telecommunication and IT sector, power sector, environment related technologies etc. Eastern Europe countries have a defence industrial base which can match some of India's needs. On the other hand, all these countries are interested in stronger ties with India due to a number of reasons including the size and growth of the Indian economy and market, our human resources etc., which India can access. This desire has been further strengthened by

the resilience shown by the Indian economy in maintaining a high rate of economic growth despite the general slowdown and contraction of the world economy. Intensification of bilateral trade investment and economic ties with these countries remains a priority for India.

Indian professionals in the fields such as IT, Medical are employed in large numbers in some of the Nordic countries. Therefore agreements on Social security and labour mobility Partnerships are being concluded/ pursued with these countries. In addition, there are now large Indian investments in some of the Eastern European countries and Bilateral Investment Promotion and Protection Agreements are in place or being pursued with many countries of the region. India has also concluded agreements in other areas including economic, defence, culture, science and technology, education and tourism sectors with these countries.

Several countries of the region are members of the European Union and NATO, and all are members of the UN. India enjoys good cooperation with countries of the region in these fora and has received their support for its candidatures on a number of occasions.

Smt. Pratibha Devisingh Patil, President of India, accompanied by Smt. D. Purandeswari, Minister of State for Human Resource Development and other high level officials, business delegates and media persons, paid a State visit to **Cyprus** from 29 - 31 October 2009. An Indian Parliamentary Delegation led by Speaker of the Lok Sabha, Smt. Meira Kumar visited **Austria** from 14-17 September 2009. External Affairs Minister Shri S. M. Krishna visited **Prague** from 28-30 June, 2009 to attend the India-EU Ministerial Troika.

Danish Prime Minister Mr. Lars Lokke Rasmussen paid a one day Working Visit to India on 11th September, 2009 as Host of the 15th Climate Change Conference and met Prime Minister Dr. Manmohan Singh. Foreign Minister of **Lithuania**, Mr. Vygaudas Usackas, accompanied by Economy Minister Mr. Dainius Kreivys visited India from 2-5 December 2009, Foreign Minister of **Hungary**, Dr. Peter Balazs, paid an official visit to India from 17-21 January 2010 when he had extensive talks with EAM. Deputy Prime Minister and Foreign Minister of Malta, Dr. Tonio Borg, paid on official visit to India from 6-11 January 2010 and held discussions with EAM and MoS Mrs. Preneet Kaur.

President of India Smt. Pratibha Devisingh Patil paid a State visit to **Poland** from 23-26 April 2009 accompanied by MoS Dr. Ashwani Kumar. President of **Iceland**, Dr. Olafur Ragnar Grimsson paid a State visit to India from January 11-17, 2010 during which he was also conferred the Jawaharlal Nehru Award for International understanding for 2007. The Turkish President Mr. Abdullah Gul along with a large business delegation visited India from 7-11 February 2010. Minister of Commerce and industry Shri Anand Sharma visited **Turkey** from 7-8 September 2009, to take part in the 9th session of Joint Committee for Economic and Technical Cooperation (JCETC) held on 8th September 2009. Finance Minister Shri Pranab Mukherjee attended the Annual Meeting of IMF in Istanbul from 2-7 October 2009. **Swedish** Prime Minister Frederick Reinfeldt accompanied by Foreign Minister Carl Bildt, Trade Minister Ewa Bjorling, and a business delegation visited India 5-6 November 2009 for the bilateral as well as India-EU. Minister of Commerce and Industry, Shri Anand Sharma, accompanied by an 18 member high powered official and business delegation visited Sweden from 15-16 September 2009. Dr. M.S. Gill, Minister for Youth Affairs and Sports paid an official visit to **Switzerland** from 8-17 August 2009 and a 4-member

delegation led by the Minister of Textiles, Shri Dayanidhi Maran, visited Switzerland from 25-28 October.

Vice President of India, Shri Hamid Ansari visited **Czech Republic and Croatia** from 6-12 June 2010. He was accompanied by Minister of State for Communications and IT, Shri Sachin Pilot and 4 Members of Parliament. Speaker of Lok Sabha Smt. Meira Kumar led a 7-member parliamentary delegation to **Hungary** from June 7-10, 2010. Foreign Minister of **Norway** visited India and co-chaired the 4th India-Norway Joint Commission Meeting on 2nd March 2010 with EAM. Minister of State for Earth Sciences and S&T, Shri Prithviraj Chavan visited Norway and the Indian Arctic Research station from 8-11 June 2010, and he also held extensive discussions with his Norwegian counterpart on bilateral S&T cooperation, Foreign Minister of **Finland** Mr. Alexander Stubb visited India and held extensive talks with EAM on 4th May 2010. Commerce Minister, Shri Anand Sharma visited Finland on 25th-26th March 2010 to sign the bilateral Economic Cooperation Agreement and on 10th May 2010, Minister of Road Transport and Highways, Shri Kamal Nath visited Finland to sign the MOU on Cooperation in Transport sector.

The Delhi Sustainable Development Summit 2010 saw the participation of a numbers of dignitaries from Central European Countries this year. Besides participating in the DSDS 2010, the President of Slovenia and the Prime Ministers of Finland, Norway and Greece also held meetings with PM, Dr. Manmohan Singh on bilateral and international issues.

UNITED STATES OF AMERICA

The warm relationship between India and the US were further strengthened and the engagement broadened and intensified in a number of areas of shared interests at bilateral, regional and global level. Although 2009 was a year when newly elected Government were installed in both countries - the world's oldest and largest democracies, concerted efforts were made by the new Administration in USA and the UPA Government in its second term in India to ensure that the transition was marked by continuity and intensification of bilateral relationship. Both new Governments reaffirmed their strong commitment to strengthening the existing economic and political partnerships and take them to a higher level of cooperation for mutual benefit. In July 2009, during the visit of US Secretary of State Mrs. Hillary Clinton to India, both governments announced their new Strategic Dialogue. At the Summit meeting in November 2009 in Washington, Prime Minister Dr. Manmohan Singh and President Barack Obama decided to embark on a new phase in the global strategic partnership between India and the United States.

High level contacts between India and the US continued during the period. External Affairs Minister Shri S.M. Krishna met the Secretary of State Mrs. Clinton in September 2009 on the sidelines of the UNGA in New York. Home Minister Shri P. Chidambaram and National Security Advisor Shri M.K. Narayanan visited the US in September and October 2009 respectively. Commerce and Industry Minister Shri Anand Sharma visited Washington in June 2009 to attend the 34th anniversary of the US-India Business Council. High level visits from the US to India included that of US under Secretary for Political Affairs Mr. William Burns (October 2009) and of US Trade Representative Ambassador Ron Kirk (September 2009)

The Indo-US bilateral trade in goods and services stood at US\$69.4 billion in 2008. During the period, January-October 2009, India-US bilateral trade in goods

stood at US\$ 31.5 billion. India exported goods worth US\$ 17.6 billion to the US and imported goods worth US\$ 13.9 billion from USA during January-October 2009. India exported IT and IT enabled services worth US\$ 28.3 billion in 2009 like nuclear energy, defence, education and high technology, both countries have expanded their areas of cooperation with new thrust areas added.

CANADA

With Canada, as well, important initiatives were pursued through the year such as a Civil Nuclear Agreement, a Bilateral investment Promotion Agreement, and a joint Study Group to look into the conclusion of a Free Trade Agreement. Several other proposals were initiated that would strengthen the economic, political and people-to-people linkages between the two nations. The visit of Prime Minister, Stephen Harper to India (from 15-18 November 2009) was a milestone in bilateral relations. During the visit commodities between the two countries and shared values and interests were built upon to expand the bilateral agenda and enhance cooperation in areas of shared priority. Two MoUs were signed in the presence of the two Prime Ministers. In April 2009, Deputy Chairman, Planning Commission, Dr. M.S. Ahluwalia led an Inter-Ministerial delegation to participate in the Canada India Energy Forum hosted in Toronto by the Canada India Foundation from 15-17 April, 2009. Mr. Geraid Keddy, Parliamentary Secretary to Canadian Minister of International Trade visited India from 1-5 September 2009 to inaugurate Canadian Zonal Trade office in Kolkata and Mr. Stockwell Day, Canadian Minister of International Trade, visited Ahmedabad on 25th September, 2009 to inaugurate Canada's Trade office in that city.

LATIN AMERICA AND CARIBBEAN

Our engagement with Latin American and Caribbean countries which constitute 40 countries and dependent territories continued to be broad based during the year. The multi-sectoral dialogue with the region was active with a number of summit level and ministerial level interactions during the year. Prime Minister, Dr. Manmohan Singh visited **Trinidad and Tobago** for the CHOGM Summit from 27-29 November, 2009 and held bilateral consultations with several Hos/HoGs. He met with President Lula of **Brazil** at the BRIC Summit on 16th September 2009 in Moscow and also on the sidelines of G-20 Summit in Pittsburg from 24-25 September 2009. External Affairs Minister. Shri S.M. Krishna visited Brazil from 31 August -01 September 2009 for BSA Ministerial and for a Bilateral Joint Commission Meeting. President of **Argentina**, Dr. Cristina de Fernandez Kirchner paid a state visit to India from 13-14 October 2009. The **Colombian** Foreign Minister Mr. Jaime Bermudez accompanied by the Commerce, Trade and Tourism Minister Mr. Guillermo Plata paid on official visit to India from 10-11 November 2009.

In all, a total of 14 agreements/ MoUs were signed with the countries in the region during the year. Bilateral trade touched a record US\$ 15.63 billion between India and LAC region during 2008-09, which accounts for 3.25 per cent of India's total external trade. The total Indian investments in the region, so far, either invested or committed to invest, is around US\$ 11 billion. Indian business/Industry associations, such as CII and FICCI have held series of business seminars to promote Indian trade and investments in the region. As part of our 'Focus LAC' initiative the extended Lines of Credit continue to be available to countries in the region to support infrastructure projects in the region. IT Centres were set up in **Costa Rica and Ecuador** and a total of 416 ITEC scholarships were announced for the countries in the region to assist them in their capacity building initiatives. In the wake of massive earthquake

which struck **Haiti** on 12th January, 2010, Government of India expressed its full support and cooperation to Haiti for its reconstruction. India has made a cash contribution of US \$5 million to Haiti for emergency relief purposes. Minister of State Dr. Shashi Tharoor visited Haiti on 26th January, 2010 to personally convey our sympathies to the people and Government of Haiti. During the year, we have also extended humanitarian assistance to the tune of US\$ 1.55 million to Ecuador, **El Salvador, St. Lucia and Guatemala** to help them to overcome disasters caused by natural calamities. As part of our cultural outreach programme, a series of cultural events, film festivals, seminars, conferences and food festivals were organized by the missions in the region either independently or with the support of Indian Council for Cultural Relations (ICCR).

UNITED NATIONS AND INTERNATIONAL ORGANIZATIONS

India attaches importance to the centrality of the United Nations in multilateralism. India continued to press for reform of the UN to make it more representative and democratic to enhance its credibility and effectiveness. The efforts for reform focused on revitalization of the General Assembly, reform and expansion of the Security Council, reform of the Economic and Social Council (ECOSOC), restoring the central role of the UN with regard to international development issues, and better management of peacekeeping and post-conflict peace building processes. In addition, India stressed on enhancing global cooperation against terrorism through universal implementation of the UN Global Counter terrorism strategy and early conclusion of negotiations on Comprehensive Convention on International Terrorism. India continued to maintain its position as the third largest troop contributor to the UN Peacekeeping missions with around 8,760 military personnel deployed with nine missions. External Affairs Minister, Shri S. M. Krishna led the official Indian delegation to the high-level segment of the 64th session of the UN General Assembly (UNGA) in New York from 20-27th September, 2009. Minister of State for External Affairs, Smt. Preneet Kaur visited New York from 19 - 26th October, 2009 to participate in the 64th UNGA Session. Minister of State for External Affairs Dr. Shashi Tharoor visited New York from 11 - 20 October 2009 to attend the UNGA Session.

Social and Economic Issues : The 2009 substantive session of the Economic and Social Council (ECOSOC) was held in Geneva from 06-30 July 2009. Minister of State for External Affairs, Smt. Preneet Kaur, led the Indian delegation to the Ministerial segment of this session. India hosted a high-level global conference on 'Climate Change; Technology Development and Transfer' from 22-23 October 2009 in New Delhi in collaboration with the United Nations. External Affairs Minister, Shri S. M. Krishna attended a high level Event on Climate Change, "Summit on Climate Change", hosted by the UN Secretary General on the sidelines of the UN General Assembly in New York on 22nd September 2009. Indian delegation comprising officials, Parliamentarians, civil society members and youth attended the 15th meeting of Conference of Parties (COP-15) on climate change held at Copenhagen from 7-18 December 2009. The high-level segment of the conference held from 16-18 December 2009 and participated by Heads of States/Governments of almost 120 countries, was attended by Prime Minister, Dr. Manmohan Singh.

In addition, India actively participated in a number of major international forums like Human Rights Council, Commission on the status of Women, Global Forum Migration and Development, United Nations Commission on International Trade Law and Inter-parliamentary Union.

DISARMAMENT AND INTERNATIONAL SECURITY AFFAIRS

India continued to reaffirm global non-discriminatory and verifiable nuclear disarmament as one of the highest priorities for the international community. At the 64th UN General Assembly in New York, India reiterated its proposal for a Nuclear Weapons Convention banning the development, production, stockpiling and use of nuclear weapons and providing for their complete elimination. India supports the adoption of a Programme of Work, including negotiations on a Fissile Material Cut-off Treaty, in the Conference on Disarmament.

Prime Minister Dr. Manmohan Singh participated in the Nuclear Security Summit held in Washington on 12-13 April 2010. The Summit was held as part of US President Obama's initiative to secure all nuclear materials globally within four years. In his statement at the Summit, P.M. identified nuclear security as one of the foremost challenges the world community faces today; and said that there should be zero tolerance for individuals and groups which engage in illegal trafficking in nuclear items. He also announced India's decision to set up a "Global Centre for Nuclear Energy Partnership", which will be owned and managed by the Government, but will be open to international participation.

India participated constructively in multilateral meetings on disarmament including those related to the Biological Weapons Convention, the Chemical Weapons Convention and the Convention on Certain Conventional Weapons, India also continues to participate actively in the meetings of the ASEAN Regional Forum and the Conference on Interaction and Confidence Building Measures in Asia.

NON-ALIGNED MOVEMENT (NAM)

As a founder member of the Non-Aligned Movement, India remains strongly committed to its ideals and principles, Prime Minister. Dr. Manmohan Singh Participated in the XV Summit of the Non-aligned Movement (NAM) in Sharm el-Sheikh, Egypt from 15-16 July 2009. External Affairs Minister. Shri S. M. Krishna attended the NAM Ministerial meeting held from 13-14 July 2009. Just before the NAM Summit. Shri E. Ahamed, the then MoS of State for External Affairs, led the Indian participation in the Ministerial Meeting of the Nam Coordinating Bureau held in Havana, Cuba from 29-30 April 2009 to prepare for the NAM Summit.

COMMONWEALTH

Prime Minister Dr. Manmohan Singh led the Indian delegation to the Commonwealth Heads of Government Meeting (CHOGM) held in Port of Spain, Trinidad and Tabago, from 27-29 November 2009. External Affairs Minister. Shri S. M. Krishna took part in the pre-CHOGM Foreign Ministers meeting held in Port of Spain from 25-26 November 2009. During the CHOGM 2009. Prime Minister announced several new initiatives by India including additional 250 slots for training for the Commonwealth countries under India's ITEC programme, a Diplomatic Training Module for Commonwealth countries, contribution to newly established Commonwealth Small States Joint Office in Geneva, doubling of India's contribution to the Commonwealth Media Development Fund, financial support for Commonwealth Partnership Platform Portal, establishment of a post of a Sports Development Adviser in the Commonwealth Secretariat, support for Commonwealth Secretary General's initiative to convene a network of National Elections Commissions. In addition, the Government of India released commemorative stamps and coins to mark 2009 as the 60th anniversary year of the creation of the Modern Commonwealth.

The 19th Commonwealth Games (first time hosted by India) are scheduled to be held in Delhi from 3rd October-14th October 2010. The games will be the largest multi-sport (260 events in 17 disciplines) showcase event conducted to date in Delhi and will be participated by 71 teams from 54 member nations. The opening and closing ceremonies are scheduled to take place at the Jawaharlal Nehru Stadium in Delhi. With an estimated \$ 1.6 billion budget this will be the most expensive Commonwealth Games held ever.

SOUTH ASIAN ASSOCIATION OF REGIONAL CO-OPERATION (SAARC)

During the period between April-June 2010, two significant developments were the 16th SAARC Summit and the 3rd SAARC Home Ministers' Meeting. The 16th SAARC Summit held in Thimphu on 28 and 29 April 2010 was a historic event, coinciding as it did with the 25th anniversary of SAARC. The theme of the Summit was 'Climate change' as proposed by Bhutan. The Summit adopted the Thimphu Silver Jubilee Declaration entitled "Towards a Green and Happy South Asia" and a separate Ministerial Statement on Climate Change. Two agreements, on Environment and Trade in Services, were signed at the Summit. Permanent premises of the SAARC Development Fund Secretariat were inaugurated. The Summit endorsed initialization of the first academic session of the South Asian University from August, 2010.

In his opening statement at the Summit, PM announced the setting up of an 'India Endowment for Climate Change in South Asia' to help Member States in meeting urgent adaptation and capacity building needs. He also proposed the setting up of Climate Innovation Centres in South Asia to develop sustainable energy technologies based on indigenous resource endowments. PM conveyed that India would provide 50 'SAARC Silver Jubilee Scholarships' for meritorious students from SAARC LDC countries for the South Asian University.

The Third SAARC Interior/Home Ministers Meeting took place in Islamabad on June 26, 2010 after a gap of three years. The highlight of the meeting was the adoption of the Islamabad SAARC Ministerial Statement on Cooperation against Terrorism. The meeting also considered issues relating to visa, security, terrorism, trafficking in women and children, drugs and narcotics.

MULTILATERAL ECONOMIC RELATIONS

India's multilateral economic engagement further widened and deepened during the year as the global economic and financial crisis, food security and Climate Change continued to occupy the focus of discussions in multilateral fora. Highlights of this year's multilateral engagements was Prime Minister. Dr. Manmohan Singh participation in the G-8 Outreach Summit in Italy (July 2009), the first formal Summit of the Leaders of Brazil, Russia, India and China (BRIC) in Russia (June 2009), India-ASEAN Summit and in the East Asia Summit (October 2009).

Continuing with our constructive engagement with the G-8, India participated at Minister or Secretary level in various Ministerial meetings in the run-up to the G-8-G-5 Outreach Summit including the Meeting on Afghanistan, Meeting of Labour Ministers. Agriculture Ministers. Environment Ministers. Energy Ministers and the Conference of G8 and Outreach Ministers on Destabilizing Factors and Transnational Threats.

Engagement with key regional groupings such as India-ASEAN; East Asia Summit, BIMSTEC, IBSA, MGC, ACD, ASEM, G-15 IOR-ARC and others also consolidated during the year. Major Ministerial meetings attended by India include

those under the format of India-ASEAN. East Asia Summit, BRIC, IBSA, BIMSTEC (Bay of Bengal Initiative for Multi-sectoral Technical and Economic Cooperation, G5 (Brazil, China, India, Mexico and South Africa) ASEM (Asia-Europe Meeting), ACD (Asia Cooperation Dialogue) and IOR-ARC (Indian Ocean Rim-Association for Regional Cooperation). India took over as Vice-Chair of IOR-ARC in 2009.

During 2009-10, India continued to engage proactively and participate regularly in various G-20 meetings. Prime Minister attended the G-20 London Summit in April 2009 and the G-20 Pittsburgh Summit in September 2009. The G-20 Summits focused on issues relating to the international financial and economic crisis. The Pittsburgh Summit also designated the G-20 on the 'premier forum' for international economic cooperation and marked the winding up of G-8+G-5/HAP process.

In the Context of global economic and financial crisis, apart from G-20, India was also actively engaged in the meetings of BRIC Finances Ministers to coordinate positions with Brazil, Russia and China on this important global issue.

India's hosting in September 2009, of the WTO Ministerial Conference to develop a broad-based consensus to remove the impediments coming in the way of multilateral discussion and to provide clear directions to negotiators to re-energize the multilateral process of the WTO was another important milestone during the year.

TECHNICAL AND ECONOMIC COOPERATION AND DEVELOPMENT PARTNERSHIP

The Indian Technical and Economic Cooperation, (ITEC) Programme, the Special Commonwealth Assistance for Africa programme, (SCAAP) and Technical Cooperation Scheme (TCS) under Colombo Plan-transferred to Ministry of External Affairs with effect from 1st April, 2010 from Department of Economic Affairs have been recognized as important components of India's development partnership and cooperation with the developing world. The usefulness and relevance of these cooperative interactions in different countries was reflected in the increasing number of participants in the ITEC programme which has indeed acquired a brand name in the developing world. Demand-driven and response-oriented. ITEC is today a major component and dynamic part of India's bilateral assistance programme manifesting itself in diverse areas of cooperation. The number of civilian slots has been increased to 5500 for 2010-11 to 158 developing countries in areas of interest and advantage to them. Training was imparted to participants from public and private sectors in areas such as finance and accounts audit, banking, education, pionning and administration, parliamentary student crime records etc.

Approximately 750 defence personnel from as many as 40 ITEC partner countries were imparted training in various Defence institutes in India. Experts from Defence services as well as from the civilian side were deputed to Laos, Lesotho, Seycheles. Zambia, Ethiopia. Mongolia. Uganda, Mauritius, Cambodia, Fiji, Guyana, Grenada. Mozambique. Namibia and Nauru.

A number of bilateral projects were initiated /undertaken in the fields of Archeological Conservation, Tourism and Hospitality, Information Technology and Small and Medium Enterprises. The projects of setting up of IT Centres in Cuba, Nicaragua and El-Salvador were completed. Project for the establishment of Vocational Training Centre in Aceh in Indonesia has commenced. An Agreement for setting up an IT Centre in Syria has been signed with the Indian Implementing Agency.

INVESTMENT AND TECHNOLOGY PROMOTION (ITP)

Economic Diplomacy continued to occupy an important place in India's foreign policy especially in the aftermath of the global economic crisis. To assist our Missions in responding more effectively to the growing demands of Indian industry and take advantages of trade and investment opportunities, additional funds of ₹ 7.81 crores were allocated to them for undertaking market expansion activities such as market surveys seminars, workshops, buyer seller meets, etc. This budgetary allocation will help strengthen the commercial wings in discharging their responsibilities in a timely and focused manner. ITP division's website www.indiainbusiness.nic.in which provides information on Indian economy for foreign investors and businesses, was revamped and made more user friendly. ITP Division worked closely with the Foreign Investment Promotion Board (FIPB), Reserve Bank of India, EXIM Bank, DIPP, Department of Commerce and other government departments on policy matters concerning reforms and liberalization, and investment and trade.

Concessional Lines of Credit remained an important focus of our economic diplomacy in Africa, Latin America and Asia. Government of India extended concessional Lines of Credit (LOC) worth US\$ 1130.053 million to 22 developing countries during 2009-10. These LOCs have helped promote export of projects and goods and services from India conveying our willingness to contribute to the economic development of these countries and generating tremendous goodwill for the country. A sum of ₹ 5 crores was set aside to assist developing countries lacking technical expertise in preparation of feasibility reports for undertaking projects under LOCs.

ENERGY SECURITY

An Energy Security unit was first set up within the investment and Technology Promotion Division of the Ministry of External Affairs in September 2007. Given the country's increasing dependence on energy imports and growing reference to energy security issues in the international affairs narrative, it was decided in 2009 to upgrade the Energy Security Unit into a full-fledged division.

This new thematic division provided inputs to articulate India's position on energy security matters in various multilateral fora like the UNGA, G-20, NAM, BRIC, ASEM, IBSA East Asian Energy Ministers Meetings, CICA, Commonwealth, BIMSTEC, BRIC, ASEM, SAARC etc. The Division played a key role in the country joining the first ever global body on renewable energy sources - International Renewable Energy Agency (IRENA). The Energy Security Division was closely associated with India's membership of the International Partnership for Energy Efficiency and Cooperation (IPEEC), and also guided our growing engagement with the world's biggest energy consumer club, the International Energy Agency (IEA).

As the nodal point in MEA for energy matters, the Division maintained close coordination with the energy line Ministries and facilitated their international engagements on energy issues. Ministry of Petroleum and Natural Gas was assisted in organizing the India-Africa Hydrocarbons Conference in December 2009. The Division coordinated with oil and infrastructure PSUs through periodic meetings of the informal Working Group on Energy Security.

The Energy Security Division coalesced the country's various stakeholders on energy security, including the private sector. An outreach programme was also begun to involve private sector companies, especially in the renewable energy sector. by

organizing brainstorming sessions on bio-diesel, ethanol etc. Advice was extended to corporate, chambers and think-tanks on energy security related matters. Energy security related seminars were cosponsored and papers commissioned on subjects relating to energy security.

CONSULAR, PASSPORTS AND VISA SERVICES

During the year 2009, our 37 Passport offices issues 50.28 lakh Passports. The total revenue generated through Passport and Visa services during the period April 2009-20th January 2010 are ₹ 685.5 crores and ₹ 924.41 crores respectively.

Some of the important steps to make the passport issuance system simpler and speedier included, decentralization through District Passport Cells and Speed Post Centers, on-line receipt of application, addition of some new buildings at Bhubaneshwar and Vishakhapatnam, centralized printing of passports, strengthening of the public grievance redressal system, Facilitation Counters and help desks. Passport Adalats to address the grievances and the careful implementation of RTI.

During the period, 2,659 Diplomatic and 22,594 official passport and 7,173 visas were issued to foreign diplomatic and official passport holders.

New projects included issuance of e-passports. Passport Sewa Project, outsourcing of visa work and the launch of Apostille Convention Project. a visa-waiver agreement with Namibia was also signed.

During the year (April 2009 to July 2010) approx. 3,70,000 personal and educational documents and approx 3,25,000 commercial documents were attested by the Ministry. In addition approx. 1,75,000 documents were apostilled for use abroad in the apostilled members countries

EXTRADITION AND LEGAL ASSISTANCE

The Ministry has been pursuing actively with various countries for negotiating bilateral agreements to provide a legal and Institutional framework to combat international terrorism, organized crime including financial frauds and drugs trafficking. These consular agreements include Treaties on Extradition, Mutual Legal Assistance in Criminal Matters, Mutual Legal Assistance in Civil and Commercial Matters and Transfer of Sentenced prisoners.

During the visit of the President of Kazakhstan to India, an extradition Treaty was signed between the two countries on 24th January, 2009.

During April 2009 - July 2010, an Indian official delegation visited Morocco, Azerbaijan and Israel to negotiate Extradition, Mutual Legal Assistance Treaty in Criminal Matters and Mutual Legal Assistance Treaty in Civil and Commercial Matters. Further, an official delegation from Vietnam and Bosnia and Herzegovina visited New Delhi to negotiate Extradition treaty and Mutual Assistance Treaty in Criminal Matters with India.

During the year (April 2009 to July, 2010). two persons were extradited from India to the United Kingdom and United States of America and four people were extradited from foreign countries to India. The Government of India received request for extradition from various countries of four persons.

ADMINISTRATION

There are currently 173 resident Indian Mission and Posts abroad. During the year

three resident Missions were opened in Niger, Mali and Guatemala. In the second year of the implementation of the 10 year plan developed in the year 2008 aimed at addressing the Ministry's acute constraints of personnel in the face of India's growing diplomatic responsibilities, 62 officers and 20 members of staff have been inducted across Missions/Posts abroad and at Headquarters.

IMPLEMENTATION OF OFFICIAL LANGUAGE POLICY AND PROPAGATION OF HINDI ABROAD

As regards Propagation of Hindi abroad with the involvement of missions, Hindi Books, Teaching materials and software were supplied to about 70 Missions/Posts. Hindi Magazines were supplied to 100 Missions/Posts and financial support was provided to our Mission/Posts in Belarus, Sri Lanka, South Africa, Ireland, Surinam Vietnam and Hungary. Parliament committee on Official Language visited RPOs in Vishakhapatnam, Chennai, Pune, Surat and Ghaziabad. Works related to this inspection were coordinated by Hindi Section of the Ministry.

E-GOVERNANCE AND INFORMATION TECHNOLOGY

During the year, computerization of Passport and visa services at Indian Missions and Posts at Kuwait, Toronto, Madrid and outsourcing of visa and Passport services at Embassy of India, Moscow, and Vancouver were completed.

RIGHT TO INFORMATION (RTI)

Since the enactment of and coming into effect of the Right to Information (RTI) Act in 2005, a total of 4021 RTI applications and appeals under the RTI Act, 2005 have been received by the Ministry during the period October 2005 to July 15th, 2010. Applications covered wide range of subjects such as administration, personal grievances, Haj pilgrimage, *Kailash-Manasarovar Yatra*, Gulf War compensations, foreign Policy, economic issues etc. Out of these applications, 450 appeals have been filed by the applicants to the Appellate Authority of the Ministry since 2007.

PROTOCOL

There were 95 visits (73 incoming and 22 outgoing) during the April 2009-March 2010 period at the level of Head of State, Vice President, Head of Government and Foreign Minister. Three countries (Burundi, Gambia and Georgia) opened resident missions during this period bringing the total number of resident missions in New Delhi to 140. Opening of new Consulates General in Mumbai were approved for Ethiopia and New Zealand in 2009. Five countries got Permission to open trade offices and nineteen were granted permission to open honorary consulates in Indian metro cities. Honorary Consul of Hungary in Mumbai and Honorary Consul of Ireland in Bengaluru were upgraded to Honorary Consul Generals in January and February 2010 respectively. 157 new Posts were created by foreign missions and international organizations in the period April 2009-February 2010. The keen interest evinced in India as witnessed in the large number of VVIP visits; opening of new missions, consulates, and trade offices; as well as the creation of numerous additional posts by diplomatic missions - was reflective of India's active and multifaceted engagement with the world.

PUBLIC DIPLOMACY

The mandate of the Public Diplomacy Division includes, inter-alia, Outreach Activities

in India and abroad and production of audiovisual and print material that enables our missions to project India more effectively. To achieve its objectives, the Division organizes seminars, conferences and briefings for and in association with civil society, NGO's think tanks, research and academic institutions and business and industry on strategic and foreign policy issues.

Other Outreach Activities for the period April 2009 - July 2010 included a visit by the friends of India Group of the UK conservative Party; a visit by the Liberal Democratic Friends of Indian Group from UK; a visit by a 26-member delegation of PIO journalists from 15 countries during *Pravasi Bharatiya Diwas* in January 2010; a visit by the Indo-Slovene Parliamentary Friendship Group from Slovenia; a visit by a six member delegation of permanent Representatives of Pacific Small Island Developing States; and a visit by Prof. Sudarshan Iyengar, Vice Chancellor, Gujarat Vidyaapeeth to Slovenia.

The Division partnered with a diverse range of organizations to facilitate seminars and conferences. These included the second project workshop of the GCC-India Joint Study Group coordinated by Indian Council of World Affairs, Gulf Research Centre, Dubai and PD Division; the 8th and 9th India-Korea Dialogue; an international seminar "Society, Culture and Politics in the Karakoram Himalayas", an international seminar on "Peace and Stability in Afghanistan: the Way Ahead"; the 4th Sustainability Summit organized by CII: an international seminar on Indo-Bangladesh Seminar organized by Centre for Rural Research and industrial Development; Chandigarh; the 3rd International Institute of Strategic Studies-MEA Foreign Policy Dialogue in London; a seminar on Indo-Nepal Relations in Patna; an international seminar "women guiding the destiny of south Asia; (a) Media Perspective by Women Journalists, (b) Women as Partners in Development" jointly organized by Centre for Rural Research and industrial Development and *Jamia Millia* in Chandigarh; a seminar on "India's Maritime Links with the Gulf-Old Foundations. New Perspectives" in Kochi; a Seminar on "Indian Foreign Policy in the 21st Century; Challenges and Prospects" by Punjab University, Chandigarh a seminar on West Asia: A Factor in India's Security and Foreign Relations" by Centre for Advanced Strategic Studies, Pune; a series of Outreach activities in Jakarta and Bali in association with Ministry of Foreign Affairs of Indonesia, the ASEAN Secretariat and Udayana University Bali.

The "MEA Distinguished Lecture Series on India's Foreign Policy" was launched at Banaras Hindu University. This was followed by lectures at universities of Lucknow, Goa, Hyderabad, Sikkim and Manipur.

With support from the Division the International Day of Non-Violence was celebrated by a number of missions and posts. The Division also continued to facilitate participation in film festivals and Indian film weeks and organized cultural and photo exhibitions. Several documentaries have been commissioned and completed. The Division took the initiative to partner with *Viswa Bharati* to bring out a special issue of 'India Perspectives' to coincide with the commemoration of the 150th anniversary of Rabindranath Tagore.

External Publicity

External Publicity Division continued to articulate the views/positions of the Government of India on various national and international issues through interaction with Indian and international media. Division's main activities focused on dissemination of information on India's relations with its immediate neighbours as also with key countries of the world. Following the terrorist attacks on 26/11 at

Mumbai, a sustained publicity drive to project India's concern on terrorists emanating from across the border was undertaken. Press coverage of both incoming and outgoing VVIP visits was facilitated. The opportunity was also used to highlight India's position on bilateral, regional and international issues. The Division continued to laise with national and international media for regular briefings on major issues. The official spokesman disseminated information on day-to-day developments relating to the conduct of India's foreign policy, and arranged regular media briefings duly supplemented by press releases, briefing points and statements.

The Division also took initiatives on revamping of MEA website. updating of Hindi Section of Ministry's website, posting Urdu and Arabic translations of MEA press releases, launching of India-Africa Connect Website, organizing familiarization visits by foreign journalists, producing documentaries and films organizing training, workshops. conferences and special events and publishing a compact and colourful handbook on general elections.

POLICY PLANNING AND RESEARCH

The Main activities of the Policy Planning and Research Division included processing of research projects and studies relating to Foreign Policy and global affairs; preparation/ updating of database of think tanks, research bodies, universities etc., dealing with subjects related to India's foreign policy and international affairs; interaction with the University Grants Commission (UGC) and its affiliates and the area study centers of different universities. specializing in research on different regions of the world The "Annual Report" for 2008-2009 was also prepared and circulated.

During the past year, one major activity of the Division was the organization of Heads of Missions (HoMs) Conference in august 2009 which was attended by about 120 Ambassadors and High Commissioners. The Policy Planning Division has also coordinated and monitored the establishment of the institute of Foreign policy Studies in the Calcutta University which has been established with the financial assistance of the Ministry of External Affairs.

Policy Planning and Research Division is in charge of the Situation Room and Boundary Cell. 'Situation Room'—a multi facility, state of the art complex established in 2007 facilitates conferences. presentations, periodic briefings, video/tele conferences with HoMs, discussions on map and images as required by various Divisions of the Ministry. It also acts as a Crisis Management Cell (Control Room) in case of crisis. During the year 2009-10, video-conferencing facilities were established in following Indian Mission and Posts; Washington, Moscow, New York, Geneva, Male, Thimphu and Shanghai.

Indian Council for cultural Relations (ICCR)

ICCR is mandated for establishing, reviving and strengthening cultural relations and mutual understanding between India and the outside world. With its headquarters in Delhi. fourteen regional offices in India and a number of cultural centers abroad, the activities of the Council also include administration of scholarship schemes for overseas students and facilitating their admissions in Indian universities. During the past year, the Council offered 226 new scholarships including 675 scholarships for Afghan students and 526 from African countries. In addition to maintaining nineteen long term chairs to teach Indian languages and social sciences with focus on India, the Council is also maintaining eleven rotating/short term chairs in various countries.

ICCR sponsored the visits of foreign performing artists to India including troupes from Switzerland, Malaysia, Mauritius, USA, Pakistan, UK, Uzbekistan, Sri Lanka, Spain, Egypt, Tanzania, Paraguay, Brazil, Iran, Colombia, Portugal, Poland, Trinidad and Tobago and Venezuela. The Council also sponsored visits of Indian artistes / troupe to various countries abroad. The Council collaborated in the holding of various conferences and seminars, organized cultural weeks and interactive sessions of famous poets in various cities and assisted various organizations and prominent institutes such as IIT, JNU, Delhi University, Allahabad University, Jamia Milla in organizing International conferences in India.

Festivals of India organized by ICCR include “the Year of India in Russia.” “Festival of India in Argentina.” and “Festival of India in Indonesia.”

INDIAN COUNCIL OF WORLD AFFAIRS (ICWA)

The Indian Council of World Affairs (ICWA) continued to develop as a think tank, and as an important platform for debate and discussion on foreign affairs. Throughout the year, the ICWA was engaged in seminars and conferences relating to India's core foreign policy interest, and in visits and lectures by eminent foreign dignitaries. Nine foreign dignitaries visited Sapru House and addressed large gatherings of strategic experts, academics, ex-diplomats and media representatives on vital foreign policy issues. These discussions resulted in ICWA beginning to come out with papers on useful subjects.

Research work on India's relations with countries in its immediate neighborhood was given a pre-eminent emphasis, and ICWA's new Research team in place since August 2009 has begun work on important issues. ICWA also organized and participated in seminars in India and abroad and the academic exchanges it resulted in an enhancement of the profile of the institution as an institute of national importance'. Seven bilateral strategic dialogues with partners abroad were conducted with institutions of repute internationally. A major international conference to revive the spirit of the 'Asian Relations conference' was conducted in Delhi during November 2009, and was attended by scholars from all over the world. ICWA consolidated its participation in the activities of council for Security Cooperation in the Asia Pacific (CSCAP). ICWA also worked to comprehensively renovate the Sapru House premises a heritage building constructed/ established under the encouragement of the country's first Prime Minister Pt. Jawahar Lal Nehru over fifty years ago. Efforts will continue at re-establishing the ICWA as the country's lead think-tank on foreign policy issues.

FOREIGN SERVICE INSTITUTE

The Foreign Service Institute (FSI) conducted training programmes for the Indian Foreign Service Probationers (IFS), officers and staff of the Ministry of External Affairs (MEA), officers from Cabinet Secretariat and other Ministries/Departments as well as for foreign diplomats. The mandatory mid-career training programmes (MCTP) for Joint Secretary level officers and e-mail based MCTP for Director-level officers were carried out apart from regular training of IFS Probationers of 2008 and 2009 batches. A media training programme and a one-day Right to Information Course for officers of the MEA and an integrated Service Interaction Course of senior IAS, IFS, IPS and defence service Officers were also conducted. Four Special Courses for diplomats from ASEAN, Maldives, Afghanistan and IOR-ARC, and two Professional Courses for Foreign Diplomats (PCFD) were organized. An MoU providing institutional framework of cooperation between FSI and Diplomatic Academy of

South Africa was signed in June, 2010 bringing the total number of such agreements between FSI and its counterpart institutions in other countries to 35. Delegations from Liberia, Bhutan, Israel, Poland and Ethiopia visited FSI during the year.

MEA LIBRARY

The Ministry's Library has over 100,000 books, rich resource materials and a large collection of maps, microfilms and official documents. A library committee manages library activities including purchase of books and subscription of journals. All kind of library operations and services including documentation and bibliographic services have been computerized. Books, maps, microfilms, selected articles from journals are being fed on a regular basis in the database on foreign affairs. Library regularly prepares and issues Foreign Affairs Documentation Bulletin, Recent Additions, Chronicle of Events, Article Alert, Book alert and e-mail services.

THE MINISTRY OF OVERSEAS INDIAN AFFAIRS

The Ministry of Overseas Indian Affairs (MOIA) is the quintessential people's agency, a one-stop address for the overseas Indian, a new Ministry was established in May 2004. The Protector General of Emigrants (PGE) administers the Emigration Act, through its 8 POE offices spread across the country which regulates the emigration of low skilled workers to the 17 ECR Countries including GCC and Malaysia.

Being the focal point for all matters relating to overseas Indian (OD) comprising Persons of Indian Origin (PIO), Non-Resident Indian (NRIs) and overseas Citizens of Indian (OCI) the Ministry has following vision, Mission and Objectives of the Ministry are.

The vision of the Ministry is to foster sustainable, symbiotic and strategic engagement between India and Overseas Indians across the economic, social and cultural space that will best serve India as an emerging global power and meet the expectations of the overseas Indian community as a significant constituency across the worlds.

The Mission is to establish a robust and vibrant institutional framework to facilitate and support mutually beneficial networks with and among overseas Indians to maximize the development impact for India and to enable overseas Indians to invest in and benefit from the - economic, social and cultural - opportunities in India.

This is to be sought to be achieved based on three value propositions.

- Through multi-skilled market driven entities promoted by the Ministry but managed at arm's length by knowledge partners from the private sector.
- Enlisting the states as stake-holder partners since overseas Indian related initiatives need to be anchored in the state.
- Stay small, drive policy changes and facilitate activity on ground

The Objectives are :

- Facilitate sustained interaction of overseas Indians with India and offer them a wide variety of services in economic, social and cultural matters.
- Extend institutional support for individual initiatives and community action to harness the knowledge, skills and investible resources of overseas Indians to supplement the national development efforts.
- Strengthen the bond between India and its diaspora by recognizing the celebrating its success and achievements.

- Transform management of emigration into a transparent, efficient and humane process through appropriate domestic interventions and international cooperation.

To fulfill its mandate, the focus of the Ministry has been on establishing a robust institutional arrangement to promote sustainable and mutually beneficial engagement between overseas Indians and India across the economic social and cultural space. Towards this end the institutional arrangements established include.

INDIAN COUNCIL OF OVERSEAS EMPLOYMENT (ICOE)

A not for profit society under the Societies Act 1860, to serve as a strategic think-tank' on matters relating to overseas employment markets for Indians and overseas Indian workers. The broad functions of the Council are:

- Build and maintain a data base on emerging country/sector specific employment opportunities abroad.
- Identify labour supply gaps in overseas labour markets and the skill sets required by Indian workers to fill those gaps.
- Initiate programme for skill development and skill upgradation in consultation with professional bodies and the private sector and promote employment opportunities abroad.
- Initiate pre-departure orientation programmes for various categories of workers.
- Coordinate with other employment promotion agencies, including the state manpower development corporations, projected manpower suppliers and foreign employers.
- Initiate and support the study, monitoring and analysis of the trends and dynamics of international labour market, problems faced by the emigrant Indian workers in India and abroad, benchmark the best practices of other labour sending countries and recommend policy initiatives / strategies.

Functioning at 'arms-length' from Government the Council has the autonomy and flexibility to build strong public-private partnerships, engage proactively in capacity building across stake-holders and best implement well calibrated strategies for better market access for Indian workers to benefit from overseas employment opportunities in the medium to long-term.

The Council has signed MoU with European University Institute regarding research on migration of labour between EU and India, also an MoU with Hellenic Migration Policy Institute, Athens. India EU Scientific Group on Migration Policy has been formed. Two meeting had already been held in Florence and Bengaluru. ICOE had also launched a scheme of research internship Programme with JUNU and University of Bangalore.

PROTECTION AND WELFARE

Legislative Framework

The emigration Act, 1983 regulates the recruitment of Indian workers for overseas employment. The Act is administered through the Protector General of Emigrants, supported by eight field offices headed by the Protectors of Emigrants in Mumbai, Chennai, Delhi, Kolkata, Chandigarh, Hyderabad, Kochi and Thiruvananthapuram. The Act regulates the recruiting agencies who have to register with the PGE before carrying out the business of recruitment of Indian workers for employment overseas. The Indian workers in the low skilled category holding ECR (emigration check required) passport going for employment in any of the 17 ECR countries have to

obtain the emigration clearance from the POE offices before they finally depart to the country of their employment. The Act provide for regulation of recruitment by the foreign employer either directly or through the recruiting agencies registered under the Act in case of low skilled and ECR category of workers. While obtaining emigration clearance the worker has to mandatorily subscribe to the insurance scheme at a very low and one time premium from Rs. 275-375 under the Pravasi Bharatiya Bima Yojana (PBBY) from any of the listed insurance companies in India.

Complaints are received about exploitation of overseas Indian workers which mainly pertain to non-payment / delayed payment of wages, unilateral changes of the contract, changing the jobs arbitrarily, not being given any employment at all. The action is taken against the RA concerned who is asked to get the stranded worker repatriated on his expense failing which the license of the RA is suspended / cancelled and his bank guarantee forfeited to pay for the repatriation expenses. Complaints against the RAs are enquired into with the help of POE offices and the concerned Indian Missions. The foreign employers are also placed in the prior approval category (blacklisted).

All state Governments and the UT Administrations have been advised to instruct all police stations to keep a strict vigil on the activities of unscrupulous agents.

Of all the emigrant workers, the housemaids and other domestic and unskilled workers are most vulnerable. Therefore to avoid their exploitation, the Ministry has taken some of the following measures.

- The age restriction of 30 years is mandatory for all women workers irrespective of the category of work. This applicable only in case of ECR category women worker seeking employment in any of the 17 ECR countries and therefore require the emigration clearance of the POE before departing for the country of their employment overseas.
- the Foreign employer has to deposit a security deposit of \$2500 if he recruits the worker directly.
- Attestation of the employment document is mandatory in r.o. of all women and unskilled category of workers in ECR countries.
- The Emigration (Amendment) Rules, 2009, have entrusted specific duties and responsibilities to the recruiting agencies such as maintenance of basic minimum facilities with a view to safeguard the interest of workers. Similarly specific duties of the employer have also been laid with a view to safeguard the interests of the workers.

Considering the paradigm shift in the migration management and the existing Act being limited in scope to address the present day issues related to emigration, the Ministry has proposed to bring in a new legislation namely the emigration Management Bill, 2010. The new bill aims to transform the emigration process into a simple, efficient, transparent, orderly and humane economic process and would benefit all stakeholders. The proposed Bill will modernize the legislative framework governing emigration, facilitate legal emigration, discourage irregular migration, enhance protection and welfare of emigrants, encourage ethical recruitment practices, enable market-friendly regulation of recruiters and provide for more deterrent penalties against crimes such as human smuggling.

E-Governance in Emigration (E-Migrate) Project of the MOIA. The Ministry is also in the process of implementing the e-Governance in Emigration (E-Migrate) Project which is estimated to be completed by the end of 2011. It is a complete and comprehensive electronic platform linking all the stakeholders (recruiting agents, immigration agents, immigration counters, insurance companies, state governments and the Indian Missions abroad) with minimum human intervention and automatic implementation of the emigration process in the State of the Art manner with real time access to relevant information and data to all concerned. The project envisages real time capture and updating of data of all emigrants, quick access of reliable emigrant data to all emigrants, customized Management Information System (MIS) to support decision making.

INDIAN COMMUNITY WELFARE FUND (ICWF)

An institutionalize framework for protection and welfare with emphasis on delivery of innovative, financially sustainable social security and support services to the vulnerable emigrant workers and those in distress. It is a fund on sustainable basis which will provide support on-site, off-site and social security services for overseas Indian workers. The fund is kept at the disposal of Indian Missions to meet contingency expenditure incurred by Indian Missions for carrying out activities related to welfare of Indian citizens. The fund which was created initially in 17 ECR countries and Maldives has been extended to 24 other countries. Following services are provided under the fund.

- Boarding and lodging for distressed Indians in household/ domestic sectors and unskilled workers;
- Expenditure on incidental to and airlifting of mortal remains to India or local cremation/burial of deceased overseas Indian in such cases where a sponsor is unable or unwilling to do so as per the contract and the family is unable to meet the cost.
- Extending emergency medical care to the OIs in need;
- Providing air passage to stranded OIs in need.
- Providing initial legal assistance to the OIs in deserving cases.

SOURCE OF FUNDING

- Funds raised by the Indian Missions by levying a service charge on consular services relating to passport, visa, OCI and PIO Cards, attestation of employment and other documents as well as other miscellaneous consular services rendered by Mission.
- Voluntary contributions by Indian community with the Missions.
- Budgetary Support from MOIA.

INFORMATION DISSEMINATION/AWARENESS

Awareness-cum-Publicity Campaign through Media

The outflow of Potential Emigrants going Overseas in search of jobs has substantially increased in the last five years. This number is expected to increase further in the coming years as demand of Indian labour is increasing. The objectives of the Awareness Campaign is to create wider awareness among the General Public about

the Legal Immigration Process, cautions against illegal practices by fraudulent recruiting Agencies and to provide information to those who are facing problems.

- Problems faced by emigrant workers and legal emigration process;
- Problems relating to Indian housemaids overseas; and
- Problem relating to NRI marriages

Overseas Worker's Resource Centre (OWRC)

The Ministry has set up an overseas Workers' Resource Centre (OWRC) a 24x7 toll free helpline which provides following services to the intending emigrants of their families:

- Information dissemination on matters related to emigration.
- Registering, responding to and monitoring complaints received from emigrants or prospective emigrants.
- Grievance Redressal and follow up with stakeholders.

The helpline was established in January, 2008 which provides toll free services for information dissemination within India at 1800 11 3900. The helpline has also been made accessible for information seekers from UAE at 8000911913. The helpline can also be reached from anywhere in the world at 91-11-40503090.

The information is disseminated in seven Indian languages namely Hindi, English, Tamil, Telugu, Malayalam, Punjabi and Kannada. Besides the OWRC in New Delhi, the Migrant Resource Centres (MRCs) have also been established at Kochi and Hyderabad with consideration of similar centres being set up in other states in the country. The Ministry has also proposed to make the helpline state of the art centre by enhancing its scope of work in order to meet present day needs.

SKILL UPGRADATION CUM PRE DEPARTURE ORIENTATION SCHEME

The Ministry is also implementing a scheme which aims -

- to institute process to develop skills of potential emigrant Indian Workers and to equip them with the basic knowledge about laws, language and culture of the destination countries desirous of travelling abroad for the purposes of overseas employment.
- enhance perception of Indian workers abroad and enable the workers to adjust to an international working environment better, thereby creating favourable conditions for further opening of employment opportunities for Indian workers.
- to promote overseas employment of Indian workers and to improve productivity, prosperity and happiness amongst the emigrants with consequent positive repercussions on remittances and national development.
- capacity building in the country in the area of development of competency standards, curricula, learning material, assessment standards to the Global Standards and also planning, implementation and monitoring of Skill Development programme for the unorganized sector etc.

The scheme is being implemented through the Ministry of Micro, Small and Medium Enterprises (MSME), State Governments of major labour sending States. Apex Industrial Associations and reputed NGOs working in the field etc. The training of workers is done through various Vocational Training Providers under the Government, Public and Private Sector and Industrial establishments. A Lead Training

Institution is designated by the State Governments for coordination between the different institutions of the MSME, the State Governments and the apex industry associations. monitoring and evaluation by a National Level Steering Committee set up under the chairmanship of Secretary, MOIA is monitoring the implementation of the Scheme. It Comprises of 11 members and apart from the Chairman include the Financial Advisor of the Ministry, one Representative each from the Ministry of Labour and Employment, Ministry of Micro, Small and Medium Enterprises (MSME), State Governments of three major labour sending States (by rotation) and from the Apex Industry Associations (CII, FICCI and ASSOCHAM).

Financial assistance under the Scheme is provided to the extent of 100 per cent of the approved expenditure. The financial assistance includes expenditure on the cost of training, training support services, publicity, administrative cost, orientation of capacity building under the Scheme. During the FY 2008-09, an amount of Rs. 5 Crore was disbursed to the implementing agencies. In 2009-10 Rs. 1 crore was released.

INTERNATIONAL COOPERATION INITIATIVES OF INDIA

The Ministry has also entered into bilateral cooperation with several countries with an aim to provide protection and welfare to the Indian emigrant workers abroad. These include:

BILATERAL MOUS

India has so far signed Labour MoUs with major destination countries in Gulf namely, Jordan, Qatar, UAE, Kuwait, Oman, Bahrain and Malaysia.

These MoUs cater to mutual cooperation in protection and welfare of workers, enhancement of employment opportunities, streamlining of the procedure of recruitment, terms of employment contracts in conformity with laws of the two countries and establishment of JWG/ Joint Committees to meet regularly to find solutions to bilateral labour problems.

The JWGs under the MoUs are the platform to deal with issues such as model contract, minimum wages, documentation requirements, labour dispute redressal, retention of passports, substitution of contracts, dealing with recalcitrant employers, practical solutions to the problems of exploitation and abuse of workers, regulation of intermediaries, sharing of experience of manpower deployment, exchange of information on legislative and administrative measures and exchange of labour market information etc.

LABOUR MOBILITY PARTNERSHIPS

The availability of young and highly skilled workforce of a country like India can be leveraged by destination countries to meet their labour and skill shortages. Labour Mobility Partnerships are the effective framework for bilateral cooperation for maximizing benefits from labour mobility and minimizing its risks, address the concerns of the countries of destination such as irregular migration and integration problems as well as provide an opportunity to both partners to jointly develop and implement good practices in labour migration.

MOIA is taking steps to build LMPs with key countries of destination in the EU. A LMP has already been signed with Denmark and process has been initiated for negotiating LMPs with Czech Republic, Sweden, France, Netherlands, Belgium, Australia and the European Union.

SOCIAL SECURITY AGREEMENTS (SSA)

The Ministry has also signed bilateral SSAs with Belgium, France, Czech Republic, Germany, Switzerland, Luxembourg, Netherlands, Hungary and Denmark. These agreements provide for following benefits to professionals, skilled workers and Corporates on reciprocal basis;

1. Exemption to the posted workers from social security contribution under the host country law, provided they make contribution/payments in the home country.
2. Those who contribute under the host country law, will be entitled to export of the social security benefits on relocation to the home country or a third country on completion of the contract/employment.
3. The above two benefits will also be available to workers posted by an employer of the home country to the host country from a third country.
4. Periods of employment in both the countries to be totalized for determining eligibility for pension benefits.
5. This will make the Corporates in both countries more competitive due to the avoidance of double taxation reducing the social security cost substantially.

SSAs have been finalised with Canada, Norway and South Korea also, which will be signed shortly.

PREVENTING AND COMBATING ILLEGAL MIGRATION

In the era of globalization, managing International Migration is likely to be one of the biggest challenges of the 21st century as more and more people migrate from their country of birth for employment and family reasons. One of the major concerns of the countries of destination is irregular migration which includes any transnational movement without proper documents; overstay in the destination country; taking employment in a destination country without proper work visa; any transnational Movement with forged travelling documents. The reasons for Irregular Migration include desire to go to a foreign land for purpose of employment/permanent residency; lack of formal channels/opportunity for mobility; peer/social pressure; family channels; proliferation of sub agents and middlemen both in country of origin and destination; trafficking and smuggling in person - through organized networks.

There are broadly two kinds of irregular migration from the country—one relating to irregular stay and employment of emigrants or visitors/pilgrims in the Gulf countries and the second relating to smuggling of migrants from some States in India through various routes eventually to UK or Canada. The Government is opposed to irregular migration in every form and is committed to participate in any domestic and international effort to combat/prevent it. However, we do believe that the stranded victims of irregular migration must be protected, assisted and rehabilitated.

The Ministry has set up a Core Group to deal with the problem of irregular migration. The Core Group is headed by Secretary, MOIA and comprises representatives from relevant Ministries and State Governments. The Core Group has recommended the strategy for implementation by the State Governments which includes identification of risk areas, targeted information campaign on risks of irregular migration, developing institutional mechanisms with states, capacity building of police officials concerned, strict enforcement of law against unscrupulous recruiting agents etc.

The Ministry has initiated the following steps for preventing and combating irregular migration and human smuggling from India:

- Criminalizing human smuggling under the proposed Emigration Management Bill.
- Set up a 24/7 helpline in Delhi, Kochi and Hyderabad to provide information and assistance to job-seekers so that they don't become victims of irregular migration.
- Organizing regular information campaigns through media to create awareness against irregular migration. A project was undertaken in p'ship with the EC and Belgium to create awareness amongst the youth of Punjab.
- Development of an action plan for preventing and combating irregular migration with the help of state governments.
- We are establishing enforcement and monitoring cell under the PGE to monitor prosecution of offenders by state police.
- We are implementing comprehensive e-Governance in emigration management to detect instances of misrepresentation, forgery etc. through real-time validation of information across stakeholders.
- We have established ICWF to help the victims of irregular migration to be able to return to India.
- We are pursuing labour mobility partnerships with the countries of destination for enhancing bilateral cooperation in preventing and combating irregular migration.
- The Government is in the process of ratifying the UN Convention on Transnational Organized Crime and its 3 protocols.

OVERSEAS CITIZENSHIP OF INDIA (OCI)

The Overseas Citizenship of India (OCI) Scheme was formally launched in January, 2006 by amending the Citizenship Act, 1955. The Scheme provides for the registration as Overseas Citizens of India (OCI) of all Persons of Indian Origin (PIOs) who were citizens of India on or after 26th January, 1950 or were eligible to become citizens of India on 26th January, 1950 and who are citizens of other countries, except Pakistan and Bangladesh.

A registered Overseas Citizen of India is granted multiple entry, multi purpose, life-long visa for visiting India, and is exempted from registration with Foreigners Regional Registration Office for any length of stay in India. OCIs are granted general conceptual parity with NRIs in economic, financial and educational fields, except in matters relating to the acquisition of agricultural/plantation properties. They are also granted parity with NRIs in adoption of Indian children, entry fee for national parks and wildlife sanctuaries, and in domestic airfares. Further notified benefits to OCIs include parity with resident Indians in entry fee for visiting the national monuments, historical sites and museums in India, practising as doctors, dentists, nurses and pharmacists advocates, architects, and chartered accountants; and entitlement to appear for the All India Pre-Medical Test or such other tests to make them eligible for admission in accordance with the provisions of the relevant Acts. These would be available on issuance of appropriate instructions by concerned Ministries/Departments.

As on 31st May 2010, 6.02 lakh persons of Indian origin have been registered as Overseas Citizens of India (OCIs).

Overseas Citizenship of India is not to be construed as 'Dual-Citizenship' as it does not confer political rights. A person registered as OCI is eligible to apply for grant of Indian citizenship under section 5(1)(g) of the Citizenship Act, 1955 if he/she is registered as OCI for five years and has been residing in India for one year out of the five years before making the application.

Application for OCI can be made on-line. Registration of persons of Indian origin as Overseas Citizens of India is done by the MHA in India and by the Indian Missions/Posts abroad. Detailed instructions and procedures about the OCI Scheme are given on the MHA's website: www.mha.nic.in.

KNOW INDIA PROGRAMME (KIP)

Know India Programme is organized by the Ministry of Overseas Indian Affairs, Government of India with the objective of familiarizing Indian Diaspora youth, in the age group of 18-26 years, with the developments and achievements made by the country in various fields e.g. economic, industrial, education, science and technology, communication and information technology, culture, etc and bringing them closer to the land of their ancestors. The programme provides a unique forum for students and young professionals of Indian origin to visit India, share their views, expectations and experiences and to bond closely with contemporary India. Know India Programme is a three-week orientation programme. These are conducted in partnership with one or two State Governments.

The participants (maximum 40) are selected based on recommendations received from Heads of Indian Missions/Posts abroad. Selected participants are provided with full hospitality in India during the duration of the programme 90 per cent (ninety per cent) of the total cost of air-ticket (lowest economy/excursion fare) is reimbursed to the participants on successful completion of the programme by them. Fourteen editions of the Know India Programmes have been conducted by the Ministry till date. The 14th KIP was organized from 28th March to 17th April 2010 in partnership of state governments of Maharashtra and Haryana.

Three KIPs are proposed to be organized during the year 2010-2011 as per following tentative schedule:

	Tentative Period	Partner States	Last date for receipt of nominations MOIA
15th KIP	August-September 2010	Assam, Meghalaya	30th June 2010
16th KIP	December 2010-january 2011	West Bengal, Bihar	30th September 2010
17th KIP	March-April 2011	Punjab, Himachal Pradesh	Himachal 31 st December 2010

SCHOLARSHIP PROGRAMME FOR DIASPORA CHILDREN (SPDC)

The Scholarship Programme for Diaspora Children is being implemented by the Ministry from the academic year 2006-07. Under it, 100 scholarships are offered for undergraduate courses in Engineering/Technology, Humanities/Liberal Arts, Commerce, Management, Journalism, Hotel Management, Agriculture/Animal

Husbandry etc. except medicine and related courses. The scheme is being implemented through :Ed.CIL (India) Limited, an autonomous body under the Ministry of Human Resource Development.

The amount of annual scholarship granted in the first year is 75 per cent of the total Institutional Economic Cost (which includes tuition, hostel, examination fees, administrative charges, etc.) subject to a maximum amount of US \$ 3,600 and is released to the college/Institute through EdCIL (India) Limited, Amount of Scholarship to be released in subsequent years is based on academic performance of the students. Airfares of the PIO/NRI students are not borne by the Ministry. SPDC from the academic year 2008-2009 has been expanded to include 40 countries with Indian diaspora population of 20,000 and more.

The Common Entrance Test (CET) has been done away with from the academic session 2010-11. The candidates for SPDC would now be selected on the basis of their performance in the qualifying examination i.e. senior secondary or plus 2 stage. From the academic year 2010-11 students applying for scholarship under SPDC scheme and seeking admission to NIT's in India are required to qualify the Scholastic Aptitude Test (SAT-II). Complete Details on SAT-II examination are available at www.collegeboard.com.

Those seeking admissions in institutions (with whom Ed.CIL is having MoUs) other than NITs under SPDC 2010-11 need not appear for the SAT-II examination. The last date for accepting the SPDC applications for 2010-11 by Ed.CIL was 18.06.10. A merit list of 120 candidates (71 NRIs and 49 PIOs) has been declared on 30.06.10 under SPDC-2010 for the academic session 2010-11.

So far, 276 students from Indian diaspora (60 students of 2006-07 batch, 79 students of 2007-08 batch, 67 students of 2008-09 batch and 70 students of 2009-10 batch) have been granted scholarships under SPDC.

PRAVASI BHARATIYA DIVAS (PBD)-2010

Pravasi Bharatiya Divas (PBD) convention is the flagship event of the Ministry organized every year in January since 2003, with a view to connect India to its vast Indian diaspora and bringing their knowledge, expertise and skills on a common platform.

The 8th edition of the *Pravasi Bharatiya Divas* convention was held in New Delhi from 7th to 9th January, 2010. The Convention was organised in partnership with the Government of NCT of Delhi. The Confederation of Indian Industry (CII) was the institutional partner. It was inaugurated by the Prime Minister on 08.01.2010 and the valedictory address was delivered by the President on 09.01.2010. The President also conferred the Pravasi Bharatiya Samman Award to 14 distinguished PIOs/NRIs. Lord Khalid Hameed CBE DL Hampstead was the Chief Guest.

The two-day convention saw a record participation of over 1500 delegates. These included 16 Members of the Prime Minister's Global Advisory Council and 8 PIO Ministers, besides 12 Union Ministers and 5 Chief Ministers and other Indian and PIO dignitaries.

The flagship event of the Ministry was widely acclaimed as a grand success both for its organizational aspects and its substantive content, as also for the choice of speakers and the topicality of the themes chosen for deliberation at its various sessions. The two pre-conferences seminars on Nano-technology and Property-related

issues of overseas Indians drew enthusiastic participation of all stake-holders and came in for appreciation from several quarters. The first meeting of the Prime Minister's Global Advisory Council was another highlight of this year's mega-event.

The Convention had three Plenary Sessions - Diaspora: Role and Expectations, Diaspora: Interests and Concerns and Skills Development, six concurrent sessions - Returning to 9 per cent Growth: Diaspora Connect, Leveraging Knowledge Networks: Global-Ink, Thousands of Firefiles: Diaspora Philanthropy, Diaspora Women in Cross-Cultural Environments, Indians and the Gulf and Future of PBDs and the Road Ahead as well as separate State Sessions. The themes for the various sessions were as given in the table below.

PRAVASI BHARATIYA SAMMAN AWARDS (PBSA)-2010

The Pravasi Bharatiya Samman Award (PBSA) is conferred on a Non-Resident Indian, Person of Indian origin or an organization or institution established and run by the Non-Resident Indians or Persons of Indian Origin, who have excelled in one's field for outstanding work which has enhanced India's prestige in the country of residence and who has made (i) significant contribution towards better understanding abroad of India and support to India causes and concerns in a tangible way; (ii) significant contribution for the welfare of diaspora; (iii) notable contribution in philanthropic and charitable work and for social and humanitarian causes in India and abroad; (iv) significant contribution in building closer links between India and its diaspora in the economic, cultural and scientific fields; and (v) for eminence in his skills which has enhanced India's prestige in that country (for non-professional workers). It is conferred by the President of India as a part of the Pravasi Bharatiya Divas (PBD) conferences organized annually since 2003. PBSA is the highest honour conferred on overseas Indians. PBSA 2010 were conferred on the following:

- Mr. Mohinder Singh Bhullar
- Mr. Yanktesh Permal Reddy
- Mr. Ryuko Hira
- (Mrs) Dr. Ruby Umesh Pawankar
- Mr. Suresh Kumar Virmani
- Mr. Pravin Jamnadas Gordhan
- Dr. Tholisiah Perumal Naidoo
- Dr. Rajni Kanabar
- Mr. Deepak Mittal
- Dr. Lenny Krishendath Saith
- Dr. Azad Moopen
- Dr. Mani Lal Bhaumik
- Mr. Ashok Kumar Mago
- Mr. Upendra J. Chivukula

MINI-PBD-EUROPE, SEPTEMBER 2009

In addition to this flagship annual event of the Ministry of Overseas Indian Affairs, with a view to reach out to sections of the vast overseas Indian community, who are unable to participate in the annual Conventions held in India, the Ministry has been

organizing mini versions of the PBD Conventions at places abroad on a regional basis by rotation.

The third in the series called 'PBD-Europe' was held at the World Forum in the Hague on 19.09.09. The event was organized in partnership with the Municipality of the Hague. The Foundation for Critical Choices for India (FCCI), Netherlands India Association (NIA), Netherlands Chapter of GOPIO, UJALA Association of Surinamese people and EEKTA Association of Surinamese people were the Netherlands-based organizations which participated in the event.

ONE-DAY SEMINAR ON INDIAN DIASPORA IN THE CARIBBEAN

A one-day Seminar on Indian Diaspora in the Caribbean was organized at Port of Spain, Trinidad and Tobago on 16th August, 2009 by the Ministry in coordination with the High Commission of India, Port of Spain. It was co-sponsored by the University of West Indies, Global Organization of Persons of Indian Origin (GOPIO), Trinidad Chapter and the National Council of Indian Culture (NCIC) based in Trinidad and Tobago.

Besides the inaugural session, the Seminar had discussions on "language and Cultural Heritage : Issues and Challenges for the Indian Diaspora" and "Role of customs, rituals, music, dance and cinema in promoting linkages." Speakers from Trinidad and Tobago, Grenada, Guyana, Jamaica and Surinam participated in the event which was attended by over one hundred and fifty persons.

H.E. Dr. Lenny K. Saith, Minister in the Office of the Prime Minister of Trinidad and Tobago was the Chief Guest for the occasion.

PROBLEMS RELATING TO OVERSEAS INDIAN MARRIAGES

Parliamentary Committee on "Empowerment of Woman" (EWC) (14th Lok Sabha) on the subject "Plight of Indian woman deserted by NRI husbands" had recommended to evolve a well defined/coordinated mechanism to deal with the issue of problematic NRI marriages.

Inter Ministerial meeting convened in the Ministry considered the recommendation of EWC and decided that National Commission for Women (NCW) be made the coordinating agency at the national level to receive and process all the complaints related to deserted Indian women by their overseas spouses.

In pursuance of above decision, National Commission for Women (NCW), 4 Deen Dayal Upadhyaya Marg, New Delhi-110 002 has been designated by this Ministry as a coordinating agency at National level to receive and process all the complaints related to Indian women deserted by their overseas Indian husbands. Chief Secretaries of all State/Administrators of all Union Territories and Heads of Indian Missions/ Posts abroad have been advised of this decision and requested to take further action accordingly.

Consequent to that, NCW has formally launched an NRI Cell to deal with problems of Indian women deserted by their NRI husbands on 27th August, 2009. Now they render all possible assistance to victims of NRI marriages. NCW looks in to complaints and takes suo-moto notice on any issue brought to the notice of NRI Cell in accordance with section 10 (1) (f) of the National Commission for Women Act, 1990 read with Sub-Section 4 of Section 10 and Section 9 of the Act.

A total number of 34 Indian women were provided assistance under MOIA's scheme giving legal and financial assistance to Indian women deserted by their overseas Indian spouses launched in the year 2007.

OVERSEAS INDIAN FACILITATION CENTRE (OIFC)

Ministry of Overseas Indian Affairs has set up an Overseas Indian Facilitation Center (OIFC) as a not-for-profit-trust, in partnership with Confederation of Indian Industry (CII). The Center will be a 'one stop shop' for serving the interests of the Overseas Indian community and has the mandate to cover two broad areas viz: Investment Facilitation and Knowledge Networking.

The objectives of the Centers are :

- Promote Overseas Indian investment into India and facilitate business partnership, by giving authentic and real time information.
- Function as clearing house for all investment related information. This would be done by processing information on a real time basis through ICT platform.
- Establish and maintain a Diaspora Knowledge Network (DKN) by creating a database of Overseas Indians, who would act as knowledge Diaspora and whose knowledge resources could be using ICT platform.
- Assist States in India to project investment opportunities to overseas Indians in the infrastructure and social sectors. The objectives of the OIFC will be to bring the Indian States, Indian Business and potential Overseas Investors on the same platform and to facilitate the investors to identify the investment opportunities.
- Provide a host of advisory services to PIO and NRIs. These could include matters such as consular questions, stay in India, investment and financial issues etc.

During PBD-2010 held at New Delhi, Prime Minister inaugurated an online portal developed by OIFC. The electronic portal comprises a series of online platforms such as an end-to-end information portal for updated information on sector and state specific investment opportunities and forthcoming events to invite diaspora's participation, a comprehensive networking platform for communication and group formation needs to foster collaborations, an online business directory of verified Indian and diaspora businesses, a customized query and solutions platform and an investment tool-kit to ease the process of investing into India. OIFC also organized a market place at New Delhi During PBD-2010. One to one meetings were held with the prospective investors at the Market place. The OIFC can be reached at www.oifc.in.

INDIA DEVELOPMENT FOUNDATION OF OVERSEAS INDIANS

India Development Foundation of Overseas Indians is a not-for-profit trust registered by the Ministry of Overseas Indian Affairs, Government of India to provide a credible window for Overseas Indian Philanthropy in India's Social development. The objective of the foundation is to facilitate philanthropic activities by Overseas Indians including through innovative projects and instruments such as micro credit for rural entrepreneurs, self help groups for economic empowerment of women, best practice interventions in primary education and technology interventions in rural health care delivery.

The foundation is at 'arms length' from Government and is managed by an eminent Board of Trustees. The mandate of the foundation is to lead Overseas Indians philanthropic capital into India's Social Sector by forging partnerships between donors and credible non-government and non-profit voluntary organisations working in the Social Sector in India.

The broad objectives of the Trust will be to:

- Lead overseas Indian philanthropy into India, facilitate partnerships through single window facilitation and by building public private partnerships.
- Establish and maintain a 'Social Capital and Philanthropy Network' in India that can provide a list of credible institutions, projects and programmes.
- Function as a clearing house for all philanthropy related information.
- Partner with states in India and encourage credible Indian philanthropic organizations to project social development opportunities to overseas Indians in the sectors that best match national priorities including empowerment of rural women.
- Promote accountability and 'good practices' in diaspora philanthropy.

The First meeting of the Board of Trustees of India Development Foundation of Overseas Indians was held on 4th November 2009. The Ministry is in the process of registering the India Development foundation as a non-profit organization in USA, UK, Canada, Australia, Germany and Gulf to qualify for exemption from federal income taxes. The portal for receiving online donations is also under development.

GLOBAL-INDIAN NETWORK OF KNOWLEDGE (GLOBAL INK)

The Ministry has developed a Diaspora knowledge network called-Global Indian Network of Knowledge (Global INK), an electronic platform that will connect people of Indian Origin from a variety of disciplines, recognized as leaders in their respective fields, not just in their country of residence but globally as well, with knowledge users at the national and sub-national levels in India. The network is being developed by M/s Tata Consultancy Services (TCS) on behalf of the Ministry.

The network will serve as a high level electronic platform to facilitate knowledge transfer from wherever it may be based without the overseas expert having to relocate. The network will serve as a strategic 'virtual think tank'. The outcome target will be the germination of ideas on development, identification of the key elements in addressing the challenges to development and articulating and mapping out solutions through innovation and technological interventions.

Global-INK will identify specific sectors and fields of activity that will broadly correspond with the development priorities set out in the eleventh five-year plan 2007-12. The focus of the knowledge transfer programme will be on social sector development and innovation (ideas to market) thus enabling India's rural/urban middle class youth to become entrepreneurs as opposed to job-seekers.

The Global INK is operational since January 1, 2010. The Global INK can be reached at www.globalink.in.

PRIME MINISTER'S GLOBAL ADVISORY COUNCIL OF OVERSEAS INDIANS

The Ministry has constituted the Prime Minister's Global Advisory Council of People of Indian Origin to draw upon the experience and knowledge of eminent people of Indian origin in diverse fields from across the world. The Council will be chaired by the Prime Minister and the renowned people of Indian Origin across the world have been selected as its Members.

The functions of the Council are :

- Serve as a platform for the Prime Minister to draw upon the experience, knowledge and wisdom of the best Indian minds wherever they may be based;
- Develop an inclusive agenda for two-way engagement between India and Overseas Indians;

- Consider ways and means for accessing the skills and knowledge of the Indian diaspora for meeting India's development goals and facilitating investments by Overseas Indians into India; and
- Institution and capacity building in India to respond to the economic, social and cultural needs of the Overseas Indian community.

The advice of the Council will be recommendatory in nature and serve as a valuable inputs for policy formulation and programme planning.

The first Council meeting chaired by Prime Minister was attended by eminent Overseas Indians including; Prof. Jagdish Bhagwati, Shri, Karan F. Bilimoria, Shri Swadesh Chatterjee, Ms. Ela Gandhi, Shri Rajat K. Gupta, Lord Khalid Hameed, Dr. Renu Khator, Shri Kishore Mahbubani, Shri PNC Menon, Shri L.N. Mittal, Lord Bhiku Chotalal Parekh, Dr. Sam Pitoda, Tan Sri Dato Ajit Singh. Mr. Neville Joseph Roach, Prof. Srinivasa SR Varadhan and Mr. Yousuffali M.A.

The Members of the Council appreciated the initiative of Prime Minister for setting up the council, and providing a platform for overseas Indian community to share their experience and knowledge for the socio-economic development of India. Members were of the unanimous view that India and its overseas community can and should build a strong, strategic and mutually beneficial partnership. Members shared their views on various aspects such as contributing to social and philanthropic work, education and skill development, collaborating work with the academic and scientific community, developing institutions of excellence, facilitating investments into India, and initiatives for facilitating young overseas Indians to rediscover their roots.

TRENDS IN EMIGRATION

There are about five million overseas Indian workers all over the world. More than 90 per cent of these workers are in the Gulf countries and Southeast Asia. During 2009 about 6.10 lakh workers emigrated from India with emigration clearance. Out of this, about 1.30 lakh workers went to UAE, about 2.81 lakh to Saudi Arabia, about 46,000 to Qatar and about 11,000 to Malaysia. Uttar Pradesh, Kerala, Tamil Nadu and Andhra Pradesh were the leading sourcing states.

Major outflow of emigrant workers in the last few years from India has been to the Gulf countries where about four million workers are estimated to be employed. A vast majority of migrants to the Middle East, including Gulf countries, are semi-skilled and unskilled workers and most of them are temporary migrants who return to India after expiry of their contractual employment. There had been a consistent and steady increase in the number of persons emigrating for employment abroad from the year 2004 onwards till 2008. The year 2009 has however registered a downtrend in the number of emigrants by about 28 per cent as compared to the previous year i.e. 2008. The number of emigration clearances granted by the eight offices of the Protector of Emigrants was 8.49 lakhs in 2008 and in the year 2009 the figure was 6.10 lakhs, KSA is the main destination for Indian workers followed by UAE. Outside the Gulf region, the intake of Indian manpower by Malaysia which showed a significant and consistent increase till 2005 has also declined since 2006. Employment for Indian workers in these countries holds a great potential.

The number of workers who were given emigration clearance for contractual employment abroad during the last five years and data on distribution of labour outflows is detailed in **Tables A, B and C.**

TABLE-A**EMIGRATION FOR EMPLOYMENT DURING THE LAST SEVEN YEARS:
WORKERS GIVEN EMIGRATION CLEARANCE**

Year	No. of workers (in lakhs)
2003	4.66
2004	4.75
2005	5.49
2006	6.77
2007	8.09
2008	8.49
2009	6.10

TABLE - B

THE DISTRIBUTION OF ANNUAL LABOUR OUTFLOWS FROM INDIA BY
DESTINATION 2004-2009: WORKERS GIVEN EMIGRATION CLEARANCE

SN	Country	2004	2005	2006	2007	2008	2009
1	Afghanistan	0	0	0	0	405	395
2	Bahrain	22980	30060	37688	29966	31924	17541
3	Brunei	0	0	0	0	607	2
4	Indonesia	0	0	0	0	33	9
5	Jordan	2576	1851	1485	1254	1377	847
6	Kuwait	52064	39124	47449	48467	35562	42091
7	Lebanon	0	0	0	0	75	250
8	Libya	-	-	-	3223	5040	3991
9	Malaysia	31464	71041	36500	30916	21123	11345
10	Maldives	3233	3423	4671	ECNR	ECNR	ECNR
11	Mauritius	3544	1965	1795	ECNR	ECNR	ECNR
12	Oman	33275	40931	67992	95462	89659	74963
13	Qatar	16325	50222	76324	88483	82937	46292
14	S. Arabia	123522	99879	134059	195437	228406	281110
15	Sudan	0	0	0	0	1045	708
16	Syria	0	0	0	0	74	0
17	Thailand	0	0	0	0	15	5
18	U.A.E.	175262	194412	254774	312695	349827	130302
19	Yemen	0	0	0	0	492	421
20	Others	10715	15945	14175	3550	0	0
TOTAL		474960	548853	676912	809453	848601	610272

TABLE - C

**STATE-WISE FIGURES OF WORKERS GRANTED EMIGRATION
CLEARANCE/ECNR ENDORSEMENT DURING THE YEARS 2004-2009**

SN	State	2004	2005	2006	2007	2008	2009
1.	A&N Islands	29	5	190	87	89	75
2.	Andhra Pradesh	72,580	48,498	97,680	105044	97530	69233
3.	Arunachal Pradesh	73	0	0	25	244	181
4.	Assam	2,695	669	1,075	1905	1517	1788
5.	Bihar	21,812	9,366	36,493	51805	60642	50227
6.	Chandigarh	2,405	807	6,616	9177	1768	966
7.	Chhattisgarh	580	0	4735	310	80	51
8.	D & Diu	0	0	0	0	27	8
9.	Delhi	6,052	6,024	9098	5327	4512	2501
10.	DNH/UT	0	0	11	12	17	3
11.	Goa	7,053	1,627	4,063	3102	2210	1659
12.	Gujarat	22,218	49,923	13,274	20066	15716	9185
13.	Haryana	1,267	2,313	193	1852	1779	1052
14.	Himachal Pradesh	1,506	762	1,180	1119	1345	776
15.	Jammu & Kashmir	1,944	486	1,661	3276	3588	4307
16.	Jharkhand	919	974	1,427	3651	3561	3545
17.	Karnataka	19,237	75,384	24,362	27014	22413	18565
18.	Kerala	63,512	1,25,075	1,20,083	150475	180703	119384
19.	Lakshdeep	0	0	0	0	23	19
20.	Madhya Pradesh	8,888	5,312	7047	3616	2321	1897
21.	Maharashtra	28,670	29,289	15,356	21496	24786	19128
22.	Manipur	29	0	0	1	30	18
23.	Meghalaya	0	0	0	7	24	21
24.	Mizoram	38	0	0	-	8	2
25.	Nagaland	46	0	0	7	10	5
26.	Orissa	6,999	1,258	4,114	6696	8919	6551
27.	Puducherry	560	222	2	45	397	320
28.	Port Blair	0	0	1	2	0	-
29.	Punjab	25,302	24,088	39,311	53942	54469	27291
30.	Rajasthan	35,108	21,899	50,236	70896	64601	44744
31.	Sikkim	0	0	10	2	18	12
32.	Tamil Nadu	1,08,964	1,17,050	1,55,631	150842	128791	78841
33.	Tripura	2	1	1	121	592	324
34.	Uttar Pradesh	27,428	22,558	66,131	91613	139254	125783
35.	Uttarakhand	58	137	93	179	523	623
36.	West Bengal	8,986	5,102	14,929	24817	26094	21187
37.	Others	0	24	1909	924	0	
	Total	4,74,960	5,48,853	676912	809453	848601	610272

19 Industry

INDIA started her quest for industrial development after Independence in 1947. The Industrial Policy Resolution of 1948 marked the beginning of the evolution of the Indian Industrial Policy. The Resolution not only defined the broad contours of the policy; it delineated the role of the State in industrial development both as an entrepreneur and as authority. Successive policy resolutions also reiterated this basic tilt in favour of the public sector. The Industrial Policy Resolution of 1956 gave the public sector a strategic role in the economy. It categorised industries which would be the exclusive responsibility of the State or would progressively come under State control and others. Earmarking the pre-eminent position of the public sector, it envisaged private sector co-existing with the State and thus attempted to give the policy framework flexibility.

India's strategy for industrial development witnessed a paradigm shift in 1991. Industrial development until then was largely based on product market regulations, with capacity licensing being its principal instrument. Though this strategy had successfully created an industrial base, it had encouraged rent seeking to a considerable extent. There were limited incentives for product innovation and for a competitive push. Economic reforms initiated in 1991 gradually removed these product market licenses. The new industrial development strategy, therefore, envisaged a significantly bigger role for private initiatives.

INDUSTRIAL POLICY

Industrial policy since 1991 has been more of facilitating the industrial development rather than anchoring it through permits and controls. Industrial licensing has, therefore, been abolished for most of the industries and there are only 5 industries related to security, strategic and environmental concerns where an industrial license is currently required:

1. Distillation and brewing of alcoholic drinks;
2. Cigars and cigarettes of tobacco and manufactured tobacco substitutes;
3. Electronic aerospace and defence equipment; all types;
4. Industrial explosives including detonating fuses, safety fuses, gunpowder, nitrocellulose and matches;
5. Specified Hazardous chemicals i.e. (i) Hydrocyanic acid and its derivatives, (ii) Phosgene and its derivatives and (iii) Isocyanates and diisocyanates of hydrocarbon, not elsewhere specified (example Methyl isocyanate)

For all other industries, an investor is to file an Industrial Entrepreneurs' Memorandum (IEM) to the Secretariat for Industrial Assistance (SIA). Even in the filling of an IEM, a threshold limit of investment of ₹ 10 crore in plant and machinery has been prescribed.

Along with the removal of the industrial licensing, reform has also been initiated in areas of reservation of products for exclusive production in the small scale sector. With the reduction in the tariff rates and removal of quantitative restrictions on imports, product reservation for small scale sector has created an anomalous situation. By virtue of reservation of a product for production in small scale sector, entry of a

domestic large scale player was not permitted though the product could still be imported from outside. Review of the list of items exclusively reserved for production in small scale sector has, therefore, been a continuous process and their numbers have been brought down to 21 in 2009. The Government has also enacted the Micro, small and Medium Enterprises Development (MSMED) Act, 2006 stepping up the investment limit to ₹ 5 crore for Small enterprises so as to reduce the regulatory interface with the majority of the industrial units.

Promotion of small scale industry continues to remain a focus area for the Government. Industrial Undertakings other than the small scale industrial undertakings engaged in the manufacture of 21 items reserved for exclusive manufacture by the small scale sector are, therefore, required to obtain an industrial license and undertake an export obligation of 50 per cent of their annual production. The condition of licensing, however, is not applicable to such industries operating under 100 per cent Export Oriented Undertakings Scheme, the Export Processing Zone and the special Economic Zone Schemes. This in a way attempts to achieve the twin objectives of small industries, protection and general competitiveness of the industrial sector.

Consistent with the policy of liberalization of domestic industry, the number of industries reserved for public sector have also been reduced. Presently there are only two areas which are reserved for public sector:

(i) Atomic Energy - Production, separation or enrichment of special fissionable materials and substances and operation of the facilities, specified in notification No. S.O.2630(E) dated 19.10.2009 of Department of Industrial policy and Promotion, Ministry of Commerce and Industry, Government of India, and

(ii) Railway transport - Product market reforms in industrial sector ran concurrently with the reforms in the international trade sphere resulting in reduction in the duty rates across the manufactured products in a calibrated manner and dismantling of quantitative import restrictions. Indian economy responded positively to these policy changes. There was acceleration in the growth of GDP and also in the growth of industrial output. GDP growth, which averaged under 4 per cent during 1951-92, increased to 7.7 per cent during 2000-2010. The rate of growth of industrial sector also improved in line with the GDP growth, though the share of industries in GDP improved only moderately. Economic integration with the global economy, however, progressed consistently with the share of trade in GDP improving from 12 per cent during 1950-1992 to over 45 per cent in last three years.

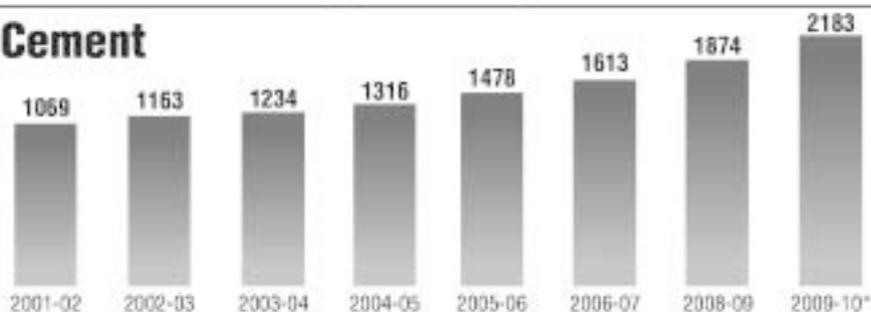
Table : 1 Rate of growth of GDP and its Sectors (average annual per cent)

	1950-92	1992-97	1997-2002	2002-07	2007-08	2008-09	2009-10
Agriculture	2.44	4.72	2.43	2.34	4.73	1.58	0.22
Industry	5.31	7.29	4.29	9.18	9.49	3.87	9.27
Manufacturing	5.17	9.42	3.31	8.57	10.28	3.21	10.83
Services	4.96	7.28	7.87	9.37	10.51	9.75	8.53
GDP at factor cost	3.95	6.54	5.51	7.80	9.2	6.7	7.4
Share of Industry	21.6	25.9	25.7	26.1	28.8	28.0	28.5
Share of Manufacturing	12.6	15.2	15.2	15.1	16.2	15.6	16.1
Trade Share	12.0	19.2	25.0	36.4	47.8	55.2	47.7

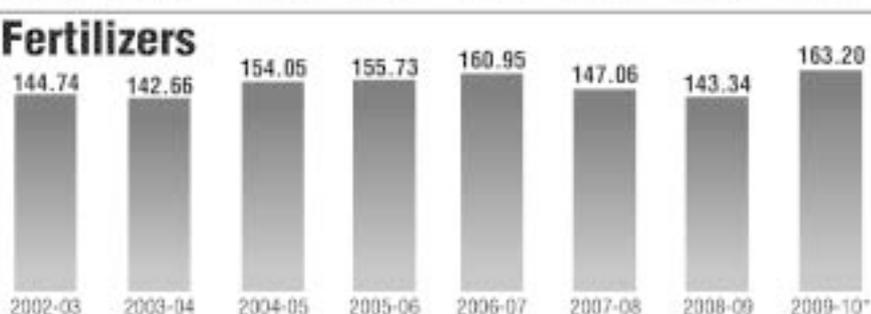
Production of Selected Industries

(Lakh Tonnes)

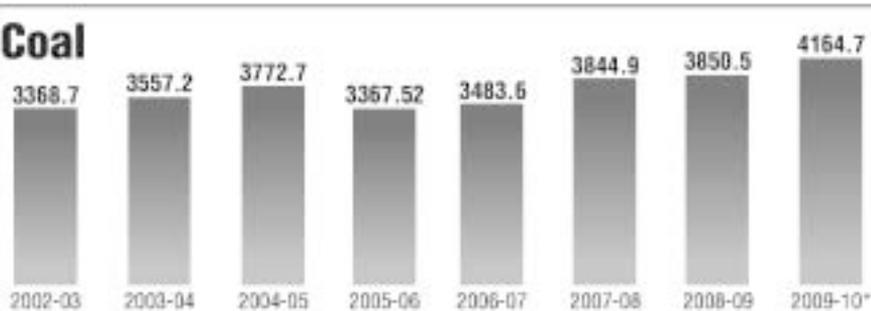
Cement



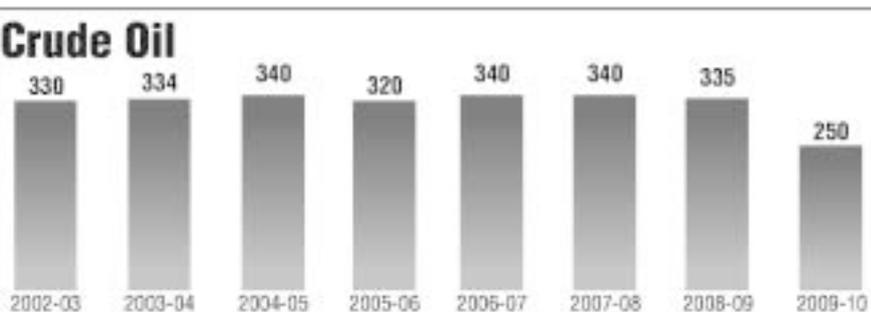
Fertilizers



Coal



Crude Oil



Foreign Direct Investment (FDI)

Domestic savings in India have not been enough to provide for the investment opportunities. Capital inflows from other countries, particularly of an investment nature, which adds to the domestic investment, have become important. The ratio of domestic savings to GDP has generally been lower than the ratio of GCF to GDP. During 2004-08, this gap was 1.3 per cent of GDP. Equity inflows are more stable and bring in new management practices and technology together with the investment. To encourage FDI inflows, the FDI policy has continued to be fine-tuned and liberalized progressively allowing FDI in more industries under the automatic route. In the year 2000, Government allowed FDI up to 100 per cent on the automatic route for most activities and a small negative list was notified where either the automatic route was not available or there were limits on FDI. Since then, the policy has been gradually simplified and rationalized and more sectors opened up for foreign investment.

Recent changes in FDI policy

Significant changes have been made in the FDI policy regime in the recent times to ensure that India remains increasingly attractive and investor-friendly. Some of the main changes have been as follows:

- In February 2009, a new paradigm was introduced under the FDI policy, by incorporating, for the first time, the twin concepts of 'ownership' and 'control', as a central principle in India's FDI regime and recognizing both criteria as vital determinants for calculation of direct and indirect foreign investment. This ensured application of simple, homogenous and uniform norms for as also to clarify the need for obtaining government/FIPB approval (or otherwise) for foreign investment into Indian companies and for such Indian companies in the eventuality of their making downstream investments.
- Increased government oversight was also brought in over the transfer of ownership or control in sensitive sectors to non-resident entities.
- Government liberalized the induction of FDI in Micro and Small Enterprises by clarifying that FDI in MSE was now permitted, subject only to the sectoral equity caps, entry routes and other relevant sectoral regulations.
- All payments for royalty, lump sum fee for transfer of technology and use of trademarks/ brand names, were brought under the automatic route, without the need for Government approval.
- In 2010, Government announced that recommendations of FIPB, only proposals with a total foreign equity inflow of more than ₹ 1200 crore, would henceforth be placed for consideration of CCEA, as against the earlier limit of cases with a total investment of ₹ 600 crore. It also exempted a number of other categories of cases from the requirement of obtaining prior approval of Government.
- The most recent and major exercise undertaken by Government has been the consolidation/integration of all existing regulations on FDI, contained in FEMA, RBI circulars, various Press Notes etc., into one consolidated document, so as to reflect the current regulatory framework. The final document in this regard was released on 31 March, 2010, as Circular 1 of 2010. It has been decided that the consolidated circular would be issued every six months to ensure that FDI policy is kept updated. Such consolidation would ensure that all information on FDI policy is available at one place, which is expected to lead to simplification of the policy, greater clarity and understanding of foreign investment rules among

foreign investors and sectoral regulators, as also to bring in greater predictability of policy.

- The Government has now initiated stakeholder consultations, by inviting suggestions on various aspects of FDI policy, including sectoral policies. A starting has been made with the policy on FDI in the defence and retail sectors, on which discussion papers have been released for suggestions.

FDI inflows

There has been a tremendous growth in the FDI inflows to India since 2003-04. FDI equity inflows have risen nearly thirteen-fold, from US \$ 2.23 billion in 2003-04 to US \$ 27.31 in 2008-09 and US \$ 25.89 billion in 2009-10. The total FDI that has flowed into India since the onset of the liberalization process (August, 1991-May, 2010) is nearly US\$ 136.86 billion. This represents only the equity capital component of FDI. Under international practices of reporting, i.e. including equity capital, reinvested earnings and intra company loans, the figure comes to US \$ 168.94 billion. According to the international practices of reporting, total FDI was US\$ 6.13 billion in 2001-02 which increased to US \$ 35.18 billion in 2008-09 and US \$ 37.19 billion in 2009-10.

While the FDI inflows have somewhat flattened out over the course of the last three years, the pace of inflows has been stable, including during 2009-10. This is despite the fact that the UNCTAD World Investment Report, 2009, had noted a fall of global FDI inflows, from a historic high of 1.98 trillion in 2007 to 1.70 trillion in 2008, a decline of 14 per cent. UNCTAD had subsequently predicted a fall in global FDI investment flows by 30 per cent, from US \$ 1.7 trillion in 2008 to US \$ 1.2 trillion in 2009. Relatively speaking, this indicates an increase in India's share in global FDI and continuation of India as one of the preferred destinations. The Organisation for Economic Cooperation and Development (OECD), in its report on investment, released in March, 2010, had also noted a significant stagnation in the global investment activity due to the global economic crisis.

Table 2 : Growth FDI inflows (Amount in US \$ billion)

Financial year	As per International practices	Percentage growth	FDI Equity Inflow (DIPP)	Percentage growth
2003-04	4.32	(-) 14%	2.23	(-) 18%
2004-05	6.05	(+) 40%	3.22	(+) 45%
2005-06	8.96	(+) 48%	5.55	(+)72%
2006-07	22.83	(+) 146%	15.73	(+) 184%
2007-08 (P)	34.84	(+) 53%	24.58	(+) 56%
2008-09 (P)	35.18	(+) 1%	27.31	(+) 11%
2009-10 (P)	37.19*	-	25.89	-
2010-11 (April-May 2010)	-	-	4.39	-

* As per RBI estimates

FDI equity inflows, as a percentage of GDP, grew from 0.37 per cent in 2003-04 to nearly 2.21 per cent in 2008-09. As a percentage of GCF, they grew from 1.35 per cent to nearly 6.32 per cent during the same period. The 2009 survey of the Japan Bank for International Cooperation (JBIC), conducted among Japanese investors, continued to rank India as the second most promising country for overseas business operations, after China. The UNCTAD World Investment Report (WIR) 2010, in its analysis of the global trends and sustained growth of Foreign Direct Investment (FDI) inflows, has reported India as the the second most attractive location for FDI for 2010-2012. According to the WIR 2010 report, the top five most attractive locations for FDI for 2009-11 are China, India, Brazil, United States and the Russian Federation. In the World Investment Report, 2009, India had been reported as the third most attractive destination. For India to maintain its momentum of GDP growth, it is vital to ensure that the robustness of its FDI inflows is also maintained.

FDI inflows in the industrial sector

Manufacturing sector were the first ones to be opened up for FDI inflows as with the product market reforms, it was considered necessary to invite FDI inflows in these sectors. The infrastructure and services sector were gradually opened up in subsequent phases partly because these were for a long time considered to be the public sector responsibility. The overall equity flow, however, indicate that industrial sector covering mining, manufacturing and power as of today accounted for nearly 50 per cent of the total equity inflows. FDI has particularly been active in sectors like machinery, chemicals, auto sector, miscellaneous manufacturing, telecommunication and power. In case of telecommunication, the FDI is both for the setting up of production base and also for providing telecommunication services. In traditional sectors of Indian industry, inflow of FDI has been limited. This may be partly because of a low technological intensity of these sectors. It may also be due to the strength of domestic industry and the perception of foreign investors with regard to these sectors. In some of the sectors, however, the perception appears to be changing. The shift in FDI perception is apparent for metals, food products, and paper.

Table 3 : FDI Inflows - Industries (US\$ million)

	1991- 2002	2002- 07	2007- 08	2008- 09	2009- 10	Total Equity flows	Share (%)
Food products	972.6	392.2	80.7	150.5	348.2	1944.2	2.5
Fermentation Industries	51.1	216.3	270.1	144.7	112	794.2	1.0
Textiles	249.2	327.2	186	157.4	140.6	1060.4	1.4
Wood Products	0.1	0.6	0.4	11.3	6.5	18.9	0.0
Paper	327.2	139	104.2	310.1	85.9	966.4	1.3
Leather	43.4	16.8	7.5	3.3	5.1	76.1	0.1
Chemicals	1810.4	1934.1	582.3	992.5	611.8	5931.1	7.8
Rubber, plastic and Petroleum Products							
(Including oil exploration)	342.1	464.7	1441.9	497.2	296.2	3042.1	4.0
Non Metallic Minerals	515.8	877.9	143	944.2	45.6	2526.5	3.3
Metals and Metal products	223	548.7	1176.9	960.9	406.7	3316.2	4.3

Machinery and Equipments	5232.8	8360.3	3907.1	5086.5	5069.2	27655.9	36.2
Transport Equipments	431.1	1130.8	674.8	1151.7	1176.6	4565.0	6.0
Others Manufacturing	2834.2	1184.7	704.3	1566.1	1079.4	7368.7	9.7
Mining (including mining services)	7.8	55.8	458.3	34.4	174	730.3	1.0
Power	1885.8	398.5	1011.2	1070.1	1935.2	6300.8	8.3
Telecommunication	2140.4	1505.9	1261.5	2558.4	2554	10020.2	13.1
Total	17066.9	17553.5	12010.2	15639.3	14047.0	76316.9	100.0

INDUSTRIAL EMPLOYMENT

The employment in the manufacturing sector in India has remained fairly stable. The last two rounds of NSSO survey indicate that the share of employment in industry (mining, manufacturing and electricity) has remained around 12 per cent of the total persons employed. As per the NSSO survey (64th round), the number of persons engaged in industry appears to have marginally declined. This could be due to reduction in number of persons below the age of 14 being employed. The decline is particularly sharp in sectors such as apparels, leather, wood (including furniture) and food processing industry. This, however, is consistent with the industrial performance as indicated in Table-2 and the FDI inflow as indicated in Table-3.

Table 4 : Employment in Industrial sector (in Lakhs)

	2007-08		2004-05	
	Number per 1000	Total Number Employed	Number per 1000	Total Number Employed
Mining	5	23.0	6	27.5
Manufacturing Groups				
Food Processing	11	50.6	12	54.9
Tobacco Products	8	36.8	10	45.8
Textiles	22	101.2	21	96.1
Apparels	14	64.4	16	73.2
Leather	2	9.2	3	13.7
Wood	8	36.8	11	50.3
Paper	1	4.6	1	4.6
Printing	2	9.2	2	9.2
Chemicals	4	18.4	4	18.3
Rubber	2	9.2	2	9.2
Non metallic minerals	10	46.0	10	45.8
Metals	3	13.8	2	9.2
Metal Products	6	27.6	6	27.5
Machinery and Equipment	3	13.8	3	13.7
Total Manufacturing	115	528.8	117	535.5
Electricity	3	13.8	3	13.7
Total industry	123	565.6	126	576.7

Entrepreneurs in their IEMs field with the Ministry of Industry have also been indicating the number of persons that they are likely to employ. While the data for 2009-10 indicate that number of persons that industry was expecting to employ not been showing any increase over time, sectoral employment intentions numbers, however, are quite revealing. For the cumulative employment intentions indicated in IEMs, 24 per cent were likely to be employed in textiles, followed by metals and machinery. These three sectors together were expected to employ around 60 per cent of the total labour force that the entrepreneurs proposed to engage. These numbers are only indicatives as these were the intentions and actual realization may differ. But assuming that the proportion of the IEMs that finally get implemented and persons employed follow a uniform pattern, the traditional industries still appear to be dominant in so far domestic IEMs are concerned. Industrial employment seems to be reversing its trend in 2010, as the first six months data indicate employment intention of more than 6 lakh persons.

Table 5 : Number of persons intended to be employed (in numbers)

	2005	2006	2007	2008	2009	2010 (Jan Jun)	Share in Empl. 2001-2010 (%)
Food Products	231,349	241,090	48,761	61,272	64,890	38,895	11.2
Fermentation industries	10,125	18,696	12,290	22,800	19,515	3,574	1.3
Textiles	221,687	1,101,441	189,463	120,771	83,540	79,918	24.0
Wood products	2,902	-	1,727	5,545	266	455	0.1
Paper	22,380	23,002	14,520	15,798	13,212	6,410	2.2
Leather	6,535	9,620	5,308	1,320	1,826	2,308	0.4
Chemicals	128,759	108,883	161,639	74,974	54,367	59,111	7.2
Rubber, Plastic Products	17,950	43,253	16,135	8,251	12,401	9,172	1.3
Cement	26,656	45,753	185,181	227,211	61,143	38,748	6.1
Metals and Metal Products	304,782	158,818	253,992	335,809	242,639	137,723	15.6
Machinery and Equipment	165,896	193,414	271,366	334,467	206,051	179,036	14.8
Transport	10,884	34,354	26,721	79,653	24,628	29,590	2.1
Others	85,057	113,047	142,594	483,412	159,322	39,843	12.5
Fuel	35,562	9,079	12,456	22,4589	4857,694	1.1	
Total	1,270,524	2,100,450	1,342,153	1,793,741	953,285	632,477	100.0

INDUSTRIAL PRICING

Manufacturing products have also experienced an increase in the costs and have attempted to pass on this cost by way of increasing the prices of the products, partially or fully. While some of costs particularly the interest is common across all industries, each industry seems to have a differential pricing power. Food products, metals, beverages and tobacco, wood products and chemicals have been more successful in passing the cost of production to the consumers. In some of the sectors particularly

machinery and machine tools, rubber, plastic and petroleum products industry seems to have absorbed part of the increase in the costs.

Table 6 : Industrial Inflation (average annual per cent change)

	Weight	1997- 2002	2002- 07	2007- 08	2008- 09	2009- 10	2010-11 (Apr- Jun)
Food Products	11/54	3.2	4.7	4.3	10.0	16.7	5.8
Beverages, Tobacco and Tobacco Products	1.34	7.6	4.7	10.2	9.5	5.1	7.2
Textiles	9.80	0.1	2.2	-1.1	6.0	6.2	15.4
Wood and Wood Products	0.17	8.5	3.5	4.7	8.3	2.2	14.6
Paper and Paper Products	2.04	5.9	2.0	1.8	4.4	0.8	1.2
Leather and Leather Products	1.02	3.4	2.8	4.2	1.1	-1.2	0.0
Rubber and Plastic Products	2.39	0.3	3.3	7.2	4.7	2.3	5.9
Chemicals and Chemical Products	11.93	5.2	2.8	5.6	7.2	4.4	6.2
Non-Metallic Mineral Products	2.52	2.2	6.0	8.9	3.8	2.2	1.5
Basic Metals and Metal Products	8.34	2.3	10.8	6.9	14.4	-9.7	12.3
Machinery and Machine Tools	8.36	2.2	3.8	7.0	4.7	-0.2	4.0
Transport Equipment and Parts	4.29	3.6	2.1	2.7	5.2	0.1	2.6

INDUSTRIAL INNOVATION: INTELLECTUAL PROPERTY RIGHTS

Government has taken multi pronged strategy to develop an Intellectual Property regime in the country to promote creativity and to develop the culture of respect for innovations and creativity. These are:

- Meeting international obligations
- Safeguarding national interests
- Modernise administration
- Creating awareness

The salient achievements in the recent past are as follows:-

All the legislations related to patents, designs, trademarks and geographical indications have been amended/enacted. These comply with India's international obligations under the Agreement on Trade Related Intellectual property Rights (TRIPS).

Trade Mark (Amendment) Bill, 2009:- The Trade Mark (Amendment) Bill, 2009 is under consideration in Parliament. The proposed amendment to the Trade Marks Act will enable India to accede to the Madrid Protocol. The Madrid Protocol is a simple, facilitative and cost effective system for registration of international trade marks. India's membership of the protocol will enable Indian companies to register their trade marks in Member Countries of the Protocol through filing a single application in one language and by paying onetime fee in one currency.

To modernise the IPR infrastructure in the country, a ₹ 150 crore modernization programme for Intellectual Property Offices (IPOs) was implemented during the

9th and 10th Five Year Plans. During the 11th Plan, a rupee 300 crore scheme is being worked out to develop a vibrant intellectual property regime in the country. The project also aims at developing infrastructure to facilitate functioning as an ISA and IPEA by the Patent Office and also for the Trade Marks Registry and Intellectual Property Archives at Ahmedabad. The Government has set up a National Institute of Intellectual Property Management (NIIPM) at Nagpur and it is expected to be fully functional by next year. The (NIIPM), envisaged as a world class institution, will undertake wide-ranging activities such as training, education, research and would also function as an IP think tank.

IPR Awareness Programmes:- Awareness creation is one of the major planks of the modernization scheme, as this will educate the stakeholders about the benefits of registration of their rights as also educate the general public, particularly the business community, on perils of infringement of IPRs held by others/dealing in pirated and counterfeit products. These programmes are also expected to sensitise the enforcement agencies such as the state police forces, the judiciary, etc.

National Design Policy:- Announced for the first time, this Policy envisages a key role for design in enhancing the competitiveness of Indian industry. The focus is on spread of design education, branding of Indian designs and the establishment of a Design Council. This period witnessed both the expansion and upgradation of India's premier design institution i.e. the National Institute of Design (NID) at Ahmedabad. Intake of students at NID was substantially increased; new Post Graduate courses were introduced and a new PG campus at Gandhinagar and a RandD centre at Bangalore were setup.

Initiatives in the international Fora :- India has taken a lead role in the discussions in the United Nation's specialised agency for intellectual property rights, namely, the World Intellectual Property Organisation. It played a proactive role in building consensus for the renewal of the mandate of the Inter-Governmental Committee (IGC) on Traditional Knowledge (TR), Genetic Resources (GR) and Traditional Cultural Expressions (TCE) and was successful in getting the IGC to begin negotiations for an effective international legal instrument aimed at providing protection to TK, GR and TCEs.

Bilateral Cooperation:- Bilateral cooperation agreements on Intellectual Property Rights were signed with leading countries/institutions such as UK, France, European Patent Office (EPO) and US Patent and Trademark office (USPTO), Japan Patent Office, German Patent and Trade mark office and Switzerland. At the same time, cooperation was intensified with the European Union, World Intellectual Property Organisation (WIPO) and Japan Patent Office (JPO). These MoUs focus on human resource development, capacity building and public awareness creation and are expected to facilitate the modernization process. As a measure of abundant caution, areas pertaining to policy, legislation and enforcement have been kept out of the purview of such cooperation agreements.

INDUSTRIAL PRODUCTION

There are multiple sources of assessing industrial performance. Most common of these, however, is the Index of Industrial Production (IIP) which is compiled on a monthly basis. The current series of IIP is with 1993-94 as its base, covers the broad sectors of industry, viz., mining, manufacturing and electricity with manufacturing sector further divided into 17 major industry groups. IIP, therefore, is both comprehensive and timely.

Measured in terms of IIP, industrial growth improved from an average of 5.0 per cent per annum during 1997-2002 (Ninth Plan Period) to 10.5 per cent in 2009-10. Industrial growth declined sharply to 2.8 per cent in 2008-09, largely reflecting the impact of the global slowdown. World GDP growth declined from 5.1 per cent in 2007 to 2.8 per cent in 2008 and turned negative 0.9 per cent in 2009.

To counter the adverse fallout of global slowdown, Government took appropriate fiscal and monetary measures. Three stimulus packages were announced in quick succession between December 2008 and February 2009. Total size of fiscal stimulus packages was 3.5 per cent of GDP. As the crisis intensified, the Reserve Bank of India, like most central banks, took a number of conventional and unconventional measures to augment domestic and foreign exchange liquidity, and sharply reduced the policy rates. In a span of seven months between October 2008 and April 2009, there was unprecedented policy activism. For example: (i) the repo rate was reduced by 425 basis points to 4.75 per cent, (ii) the reverse repo rate was reduced by 275 basis points to 3.25 per cent, (iii) the cash reserve ratio (CRR) was reduced by a cumulative 400 basis points to 5.0 per cent, and (iv) the actual/potential provision of primary liquidity was of the order of ₹ 5.6 trillion (10.5 per cent of GDP).

Table 7 : Industrial Performance (average annual growth in per cent)

	Weight	1997- 2002	2002- 07	2007- 08	2008- 09	2009- 10	Apr- Jun 2010
Manufacturing Industry groups							
Food Products	90.83	2.6	4.1	7.0	-9.7	-1.6	13.3
Beverages and Tobacco	23.82	11.3	14.8	12.0	16.2	0.0	-4.0
Cotton Textiles	55.18	0.4	5.0	4.3	-1.9	5.4	6.0
Other Textiles	22.58	8.7	4.2	4.8	0.0	8.2	-1.5
Jute Textiles	5.90	0.7	-1.5	33.1	-10.0	-24.4	17.0
Textile Products	25.37	2.7	11.7	3.7	5.8	8.5	0.1
Wood Products	27.01	-6.6	0.8	40.5	-9.6	9.7	-9.2
Paper Products	26.52	4.6	8.2	2.7	1.8	3.9	6.7
Leather products	11.39	8.0	-0.9	11.7	-6.9	2.3	1.5
Chemicals	140.02	8.6	9.0	10.6	4.1	10.4	6.7
Rubber and Petroleum	57.28	7.7	5.9	8.9	-1.5	15.3	15.9
Non Metallic Mineral products	43.97	9.2	6.8	5.7	1.2	9.7	3.7
Basic Metals	74.53	2.3	12.5	12.1	4.0	6.5	6.4
Metal Products	28.10	5.7	5.2	-5.6	-4.0	15.6	44.5
Machinery and Equipments	95.65	6.7	12.7	10.4	8.8	21.0	27.7
Transport Equipments	39.84	6.6	12.7	2.9	2.5	24.4	27.5
Others	25.59	0.8	11.8	19.8	0.4	10.5	22.7
Broad Industrial sectors							
Mining	104.73	2.3	4.4	5.1	2.6	9.9	10.4
Manufacturing	793.58	5.3	8.8	9.0	2.8	10.9	12.2
Electricity	101.69	5.5	5.2	6.4	2.8	6.0	5.6
Overall Industries	1000.00	5.0	8.2	8.5	2.8	10.5	11.6

Industrial sector recorded a swift recovery from the crisis. Quarter on quarter basis, industrial growth recovered from under 1 per cent in two quarters of to 3.8 per cent, 9.0 per cent, 13.4 per cent and 15 per cent, respectively in the next four quarters, resulting in an annual growth of 10.5 per cent in 2009-10. Recovery was particularly significant for metal products, machinery and equipments, transport equipments, chemicals and rubber, petroleum and plastic products. Recovery remained relatively weak for the traditional sectors of textiles, leather, beverages, food products and paper industries. Industrial recovery is being sustained in the current financial year. In the first three months of 2010-11, overall industrial growth has been of the order of 11.6 per cent. All the modern sector, machinery and equipments, transport equipments, metal products, rubber, plastic and petroleum products have sustained their growth rates.

INDUSTRIAL INVESTMENT

Industry sector has been attracting a sizable chunk of domestic capital formation resulting in an addition to the productive capacities. As per the new series of National accounts, average annual growth of new investment in industrial sector was 9.4 per cent (2004-09), as against the growth of GDP which averaged 8.8 per cent during this period. The rate of growth of gross capital formation (GCF) for mining, registered manufacturing and electricity sector was even higher. There was a decline in the rate of growth of GCF in 2008-09, which could be considered as an abnormal year because the global economic meltdown had affected the investor sentiments resulting in lesser investment and also deferment of investment decisions. The internal accruals of the corporate sector were also adversely affected. A decline in stock market indices also affected valuation gains and a combined effect of these factors led to a decline in GCF in industry.

Table 8 : Gross Capital Formation (GCF) in Industry (₹ in crore at 2004-05 prices)

	2004-05	2005-06	2006-07	2007-08	2008-09	CAGR
Mining	36,830	51,580	53,368	61,176	56,409	11.2
Registered Manufacturing	223,203	310,379	368,731	458,797	378,030	14.1
Unregistered Manufacturing	97,529	57,947	93,606	94,937	54,556	-13.5
Electricity	71,689	92,220	114,052	123,961	125,566	15.0
Total	429,251	512,125	629,757	738,871	614,561	9.4
Rate of growth (%)		19.3	23.0	17.3	-16.8	
Total GCF (excluding						
Valuables)	1,010,923	1,173,071	1,361,885	1,569,009	1,530,973	10.9
Share of GCF of Industry	42.5	43.7	46.2	47.1	40.1	

While GCF indicates actualization of investment, investment intentions indicated in the IEMs filed are lead indicators of likely investment flow to industry and of entrepreneurs' perception. The investment intentions also provide the sectoral preferences of investors and shifts in these preferences over time. During 2001-2009, overall investment indicated in the IEMs filed increased at an average annual rate of 35.5 per cent. There was, as expected, a decline in investment intentions in 2009, but the investment intentions in first six months of 2010 indicate revival of business sentiments and an improvement in entrepreneurs' perception. Metals, machinery, cement, chemicals and auto continue to dominate as the preferred industries. This is consistent with the growth of industries as indicated in Table 7 above.

Table 9 : Investment indicated in the IEMs Filed (Rs in crore)

	2005	2006	2007	2008	2009	2010 (Jan- Jun)	CAGR 2001- 2009
Food	40,098	62,845	10,520	15,924	15,637	9,783	11.0
Fermentation industries	2,888	8,008	5,171	8,230	4,566	1,190	-2.5
Textiles	21,605	26,325	22,193	10,730	9,200	15,894	12.7
Wood and Wood products	163	-	105	62.2	96	36	17.2
Paper	5,473	8,199	4,649	5,841	6,037	3,978	24.0
Leather	209	148	266	106	106	112	21.7
Chemicals	28,350	45,722	34,352	155,756	27,661	26,612	27.9
Rubber	1,102	2,403	1,191	2,867	2,118	2,969	25.1
Cement	11,800	42,406	76,906	125,948	53,742	62,599	35.8
Metals	101,730	144,128	180,973	364,978	254,285	155,554	65.1
Machinery	87,340	165,227	375,276	556,635	503,651	466,988	66.6
Transport	2,059	10,688	11,314	24,862	5,048	7,430	34.2
Others	25707	48,669	69,583	207,842	95,958	42,229	31.8
Fuel	25,432	23,782	35,001	42,225	61,743	71,926	5.2
Total	353,956	588,550	827,500	1,522,566	1,039,848	867,300	35.6

Performance of industries

Performance of industries in general and select industries like salt, cement, leather, tyre and rubber, paper and pulp, light electrical, consumer durables, consumer goods, light industrial machinery, light engineering industries, in particular are regularly monitored by this department. A brief background of select industries is explained in the following paragraphs.

CEMENT INDUSTRY

Capacity and Production

India is the second largest manufacturer of cement in the world. The modern Indian cement plants are the state-of-the-art plants and are comparable to the best in the world. The cement industry comprises 156 large cement plants with an installed capacity of 233.94 million tonnes and more than 350 operating mini cement plants with an estimated capacity of 11.10 million tonnes per annum, making a total installed capacity of 245.04 million tonnes as on 31-12-2009. There are a few large cement plants that are owned by the Central and the State Governments. Cement production during the year 2009-10 (April, 2009 to December, 2009) has been 150.12 million tonnes registering a growth of 10.52 per cent over the corresponding period of 2008-09. India exported 3.42 million tonnes of cement and clinker during April 2009-December 2009. The buoyant demand and improved profitability in this sector are conducive to the growth of industry. The industry is planning capacity addition of approximately 100 million tonnes during the 11th Five Year Plan.

Ceramic Industry

Ceramic Industry in India is more than 50 years old. It comprises Ceramic Tiles, Sanitary ware and Crockery items. Ceramic products are manufactured both in the

large and small scale sector with wide variance in type, size, quality and standard. India ranks 5th in the world in terms of production of ceramic tiles and produced 355 million sq. meters of ceramic tiles, out of global production of 8125 million sq. meters during 2008-09. State-of-the-art ceramic goodware being manufactured in the country and the technology adopted by the Indian ceramic industry is of international standards.

Cigarette Industry

Cigarette is an item falling under the First Schedule to the I (DandR) Act, 1951 and requires an industrial licence. The Cigarette Industry is one of the oldest industries in India. It is an important agro-based industry. It is highly labour intensive and provides livelihood directly and indirectly. The production of cigarettes during 2008-09 was 87,047 million numbers. During the current year 2009-10 (up to December 2009), the production has been 66819.74 million nos. The export and import of tobacco and manufactured tobacco substitutes during 2008-09 was ₹ 3461.05 crore and ₹ 118.37 crore respectively.

Explosives Industry

There are 73 medium and small scale units manufacturing Explosives, with installed capacity of 2,327 MT of Gunpowder, 18,98,797 MT of High Explosives, 278 million Meters of Safety Fuse, 543 Million meters of Detonating Fuse, 906 Million Numbers of Detonators, 2911 MT of Booster and 8457 MT of PETN etc. in current year 2009-10.

Glass Industry

Glass Industry is a delicenced industry. Glass Industry covers items such as flat glass (including sheet, float figured, wired, safety, mirror glass) hollow-ware containers, vacuum flasks, refills, laboratory glassware and other items such as bangles, beads, pearls etc. There has been growing acceptability of the Indian flat glass products in the global market. The Indian manufactures had explored new markets. The technology up-gradation is taking place in fibre glass composites. There is considerable scope in demand for glass fibre products particularly during 2008-09 it was 9,03,113 tonnes, and during 2009-10 (up to December 09) it was 6,66,810 tonnes. The export and import of glass and glassware during 2008-09 was ₹ 1,864.13 crore and Rs. 2,017.33 crore respectively. The export and import of Float glass/Sheets during the same period was ₹ 194.11 crore and ₹ 240.46 crore respectively.

Granite and Marble Industry

India is one of major producer and exporter of granite and other stones. India has vast resources of granite with about 120 varieties of different colours and textures. Most of the units are producing products of granite tiles, building slabs and monuments simultaneously. Eighty to ninety per cent of the total production is exported. The export of granite during 2008-09 was about ₹ 4900 crore. Most of the units in the marble industry are in the small scale sector. The export of marble and its products during 2008-09 was about ₹ 300 crore.

Leather Industry

Leather Industry plays an important role in Indian economy in view of its substantial overall output, export earnings and employment potential. The industry is the tenth largest amongst the manufacturing sector of India and is one of the top ten export earners for the country. The leather sector provides employment to about 2.5 million people, mainly from the weaker sections/minorities, of which about 30 per cent are women. The sector has very strong linkage to job creation in rural economy and on

social equity. The sector is dominated by small and medium enterprises with about 94 per cent in this category. The export of leather and leather products from India has undergone a structural change during the last two decades. India was traditionally an exporter of raw hides and skins and semi-processed leather. However, in the last two decades the share of leather footwear, leather garments, leather goods, footwear components and several other articles of leather in the total exports has increased substantially as a result of the Government's policy to encourage export of value added leather products.

Light Electrical Industry Sector

The Light Electrical Industry is a diverse industry having a number of distinct products and sub-products. It includes goods like Electrical Wires and Cables industry, Transmission Tower, Cranes, Lifts and Escalators, Refrigerators, washing Machine, Air Conditioners, Storage Batteries, Dry Cell Batteries, Electrical Lamps and Tubes et. A brief of this industry is given below:-

Electrical wires and cables Industry

A wide range of wires and cables are manufactured in the country which includes communication cables such as jelly filled telephone cables, optic fibre cables, local area network cables and EHT power cables. The power cable industry may be mainly divided into four segments viz, house wiring (up to 440V), LT (1.1 to 3.3kV), HT (11 to 66kV), EHV (66kV and above). Well-established RandD facilities are key factors for development of this industry. In India, renowned laboratories like Central Power Research Institute (CPRI), Electrical Research and Development Association (ERDA) are well equipped with the most advanced product testing facilities to meet international standards. Most of the major electrical and electronics manufacturing companies in India have a strong R and D base. With infrastructure receiving priority attention from the Government of India, construction, power and telecom sector are fast developing. This will give a boost to wire and cable industries in near future. In 2008-09, the non-SSI sector have reported production of insulated cable and wires of all kinds—57.02 lakh core kms and in the year 2009-10 (upto Dec. 09) the production was reported at 54.23 lakh core kms. India exported wires and cables (HS code. 7413 and 8544) of value around ₹ 1785 crore in 2007-08 against import of around ₹ 3741 crore during the same period. During the year 2008-2009 (April-Dec). the export was around ₹ 2409.91 crore against import of ₹ 3965.52 crore during the same period. The industry is de-licensed and eligible for automatic approval for Foreign Direct Investment up to 100 per cent.

Transmission Towers

Large structures called transmission towers support the high voltage transmission lines which carry electricity over long distance. There is an increasing shift in India to have larger power stations, particularly super thermal power stations. Consequently while there would be fewer but larger powers generating stations, the demand for transmission of energy would grow substantially. The transmission network of an electrical power utility constitutes a critical part of the whole power system. The move to integrate India's transmission networks through a national grid of inter-regional transmission lines will facilitate transfer of power from surplus regions to deficit regions. Current inter-regional transmission capacity of 13600 MW will be raised to 37150 MW by the end of the 11th plan period. This expansion is expected to bring order flows to power transmission companies. The country has sufficient capacity to cater to the demands arising in the country and also for exports. The

industry has facilities for testing transmission systems in the country as well as to export demand. India imported Transmission towers (HS Code 730820) of the value of ₹ 1317.5 crore in 2007-08, against an export of ₹ 845.2 crore during the same period. During the year 2008-09 (April-Dec) the import was ₹ 739.66 crore against export of ₹ 978.56 crore. The industry is de-licensed and eligible for automatic approval for Foreign Direct Investment without any restriction.

Cranes

Cranes and hoists are an important category of material handling equipment required by almost all sectors across the industry. Needless to say, core manufacturing companies would have the maximum demand for cranes due to the nature of their work. Automobile and ancillaries, power, infrastructure construction, shipyards, capital goods manufacturers, general engineering and fabrication industries in particular have a large demand for these products. The category of cranes manufactured in the country include Electric Overhead Travelling (EOT) cranes, mobile cranes, ladle cranes, hydraulic decks, crab cranes, floating cranes, controller cranes, etc. The industry has a great potential for growth in view of increased industrial activities in various fields as well as construction industry. In 2008-09, non-SSI sector have reported production of 22409 Tonnes of cranes and in the year 2009-10 (upto Dec. 09) the production of cranes was reported at 13735 tonnes. India imported cranes (HS Code No. 8426) of value around ₹ 1833.8 crores in 2007-08 against export of around ₹ 116.8 crores in the same period. During the year 2008-09 the import was 2644.49 crore against export of 172.9 crore. Industry is de-licensed and eligible for automatic approval for Foreign Direct Investment up to 100 per cent.

Lifts and Escalators

Lifts and escalators are used in industrial, commercial and domestic sectors. Rapid urbanization and robust activity in the construction industry and corporatization of the real estate sector has led to a healthy growth of this industry. The use of lifts and escalators is increasing rapidly due to substantial investments in construction of multi-storied housing complexes, large malls and supermarkets of international standards, modernization of airports and railway stations apart from industrial sectors.

A wide range of lifts and escalators are manufactured in India. These include single speed, double speed, gearless, hydraulic, servo and Variable Voltage Variable frequency (VVVF) elevators. The industry has experienced healthy growth during the recent years. The production of lifts in the year 2008-09 was reported to be 8697 numbers and in the 2009-10 (upto Dec. 09) the production was reported at 6442 numbers. India imported lifts, Escalators, Conveyers etc. (HS Code No. 8428) of value around ₹ 1152.86 crores in 2007-08 against export of around ₹ 197.57 crore against export of ₹ 140.54 crore. The industry is de-licensed and eligible for automatic approval for Foreign Direct Investment up to 100 per cent.

Refrigerators

The refrigerators Industry has become highly competitive as a number of brands have entered the market and the consumers has wide choices. Despite the fact that refrigerators have immense utility to housewives and provide a solution to avoid food wastage, the penetration level is still below 15 per cent. There are two basic designs adopted in refrigerators presently being manufactured in the country. These are commonly referred to as direct Cool (DC) and Frost Free (FF) Refrigerators. There

has been gradual consumer preference shift towards frost free segment. In rural areas, where power cuts are frequent, people still prefer the direct cool refrigerators. Another major change in refrigerator industry is adoption of Non-CFDc Technology. Increasing number of dual income house holds are shifting the demand from the conventional 180 L refrigerators to the larger 220L and more capacity refrigerators. Quality products with superior technology have helped the industry to achieve higher growth in terms of volume and also higher realization in value terms. In 2008-09, the units in non-SSI sector have reported production of 7,619 million of refrigerators and in the years 2009-10 (upto December 2009) the production was reported at 6,822 million. India exported refrigerators (HS Code 8418) valued around ₹ 529.84 crore in 2007-08 against import of around ₹ 864.01 crores during the same period. During the year 2008-09 (April-Dec) the import was 1177.89 crore against export of 770.63 crore. The industry is delicensed and eligible for automatic approval for Foreign Direct Investment up to 100 per cent.

Washing Machines

The washing machine market in India can be divided into semi-automatic and fully-automatic. The semi-automatic segment is more popular than the fully-automatic segment. However, with rising disposable incomes and higher aspirations, there is a gradual shift towards higher capacity washing machines and also towards fully-automatic washing machines. Manufacturers, therefore, have started paying more attention to this segment and are introducing more features in their products. Controls are changing from purely mechanical to fully electronic as microcontrollers are incorporated into the designs. While providing intelligence, microcontrollers boost reliability, drive down costs and improve energy efficiency. Washing machines can use as many as three microcontrollers which adds intelligence for the increased functionality and user control. Energy efficiency is realized using microcontrollers for controlling the motor, reducing noise and minimizing vibration. A large proportion of the demand is from replacement buyers in urban areas. In 2008-09, the non-SSI sector have reported production of 2.34 million of washing machines and in the years 2009-10 (up to December 09) the production was reported at 2.31 million. India exported washing machines (HS Code 8450) of value around ₹ 34.96 crore in 2007-08 against import of around ₹ 231.62 crores during the same period. During the year 2008-09 the import was 230.74 crore against export of 47.80 crore. The industry is delicensed and eligible for automatic approval for Foreign Direct Investment without any restriction.

Air Conditioners

The air-conditioners market can be classified into three segments: window AC, split AC and central AC. The split ACs are gaining popularity due to limitation of space and increases in number of people living in flats in multi-storied complexes and also due to less noise. With a perceptible increase in the living standards of the Indian middle class, there has been tremendous shift in demand of the air conditioners from non-branded assembled air conditioners to branded products. Bureau of Energy Efficiency (BEE), a statutory body under the Ministry of Power has introduced energy efficiency based star rating for airconditioners to help consumers buy the energy efficient products. The market for AC has grown substantially during the last few years. In 2008-09, the non-SSI sector reported production of 7.82 lakh of air conditioners and in the year 2009-10 (up to Dec. 09) the production was reported at 7.84 lakhs. During 2007-08 India exported air conditioners (HS Code 8415) valued at around

₹ 253 crore against import of ₹ 1818.5 crore during the same period. During the year 2008-09 the import was ₹ 1724 crore against export of ₹ 342.76 crore. The industry is de-licensed and eligible for automatic approval for Foreign Direct Investment up to 100 per cent.

Lead Acid Storage Batteries

The lead-acid storage battery is the most widely used secondary storage cell by automobile and other industries. They are used in vehicles and also for various industrial uses such as for back up power for UPS application, control rooms, power stations, telecommunications etc. In addition, it is also used for emergency lights for houses, telephone systems, power tools, as power source for mining and material handling equipments, etc. A new application of the product has emerged today in electric vehicles. The average life of the battery is approximately 2 years hence these batteries will be needed throughout the life of the vehicle or the machinery in use. This indicates that ready market of the product will always exist. With the phenomenal growth of automobile industries, the demand of such batteries is also increasing at a very fast pace. Although there are few large scale manufactures of the product dominating in India, there are large number of very small scale units manufacturing the product in a most unorganized manner. The product manufactured by them normally does not qualify the required standards as specified by BIS. In order to ensure safe disposal of lead acid batteries, Ministry of Environment and forest has issued a notification Batteries (Management and Handling) Rules, 2001 under Environment (Protection) Act 1986.

Dry cell Batteries

Performance of dry cell batteries has undergone progressive improvements through technological developments. New types of dry cell batteries with longer shelf life and greater dependability and also rechargeable cells have come up. Leak proof dry cells are used in expensive electronic/auto equipment and toys. Nickel cadmium batteries and other rechargeable batteries are manufactured in the country to meet the requirement of defence, telecommunications and electronics. Though the usage of high drain applications is yet to pick up in the country, the growing popularity of cellular phones, laptops and imported toys could open the market for anew range of batteries that are not produced at present. Contrary to the global scene, alkaline batteries account for less than 2 per cent of India's total battery market. In the developed countries, alkaline batteries constitute over 90 percent of primary battery market. The huge price premium vis-s-vis the zinc variety has inhibited the widespread usage of alkaline batteries.

Electrical Lamps and Tubes

Wide range of lamps and tubes are manufactured in the country which include general lighting service lamps such as incandescent bulbs, halogen lamps, gas discharge lamps such as fluorescent tube light, compact fluorescent lamp, high pressure mercury vapour lamps, metal halide lamps, low pressure and high pressure sodium vapour lamps and variety of special lamps. The higher energy coast have led to the development of energy efficient lamps consuming less power and giving output as close to daylight. Compact Fluorescent Lamps (CFL) which consumes about 20 per cent of the electricity for the same light output and last up to 8 times longer than the GLS are getting more popular. Compact fluorescent Lamps having power factor of 0.85 are being manufactured in the country. Manufactures are adopting imported

designs and knowhow through technical collaborations. Today, there has been effective widening of locally produced range of lamps along with serious advent of electronics in lighting, thereby supplying better, more efficient and lamps along with serious advent of electronics in lighting, thereby supplying better, more efficient and cheaper lighting systems with improved aesthetics. The future of the industry envisages immense prospects of growth and development for technologically advanced and cost effective organization. Miniaturization, electronic circuitry, newer chemicals, better luminaries are all providing the world with products of larger light output at minimum cost helping energy conservation. India imported Electric Lamps and Tubes (HS code-9405) of value around ₹ 437.9 crore in 2007-08 against export of ₹ 82.56 crore in the same period. During the year 2008-09 the import was ₹ 600.24 crore against export of ₹ 280.82 crore.

Light Engineering Industry Sector

The light Engineering Industry is a diverse industry with a number of distinct sector. This industry includes mother of all industries like castings and forgings to the highly sophisticated micro-processors-based process control equipment and diagnostic medical instruments. This group also includes industries like bearings, steel pipes and tubes, fasteners, etc. The products covered under the engineering industry are largely used as input to the capital goods industry. Hence the demand of this sector in general depends on the demand of the capital goods industry.

Rolling Bearing Industry

Bearings are used in diversified fields from simple electric fan to complex space rocket. Hence, the product range is vast and diversified. The indigenous manufacturers are manufacturing bearings of quality and precision at par with world renowned manufacturers in the diversified range of general purpose bearings where the demand is large to justify indigenous production on economic consideration. Bearings, generally used for special applications, requiring high technology and/ or required in low volumes are still being imported. There is considerable scope for development of bearings of smaller sizes and lighter weight with improved performance in harsh operating conditions like higher temperature or low temperature. Automobile industry accounts for bulk of the total demand of this industry with estimated share of 35 per cent, electrical industry share is 12 per cent, after market (replacement) share is 40 per cent and the remaining 13 per cent consumption is by other industries. As large number of world renowned automobile companies have already set up units and some are planning to set up units in India, the demand for bearings is going to increase in coming years.

Ferrous Castings

Ferrous castings are pivotal to the growth and development of engineering industries since these constitute essential intermediates for automobiles, industrial machinery, power, plants, chemical and fertilizer plants etc. Casting industry is the mother of all industries, as it impacts practically every other industry. Indian Foundry Industry is the fifth largest in the world. This industry is now well established in the country and is spread across a wide spectrum consisting of large, medium, small and tiny sector. A peculiarity of the foundry industry in India is its geographical clustering. Typically, each foundry cluster is known for catering to some specific end use markets. For

example, the Coimbatore cluster is famous for pump sets castings, the Kolhapur and Belagaun cluster for automotive castings, Rajkot cluster for diesel engine castings and Batala and Jalandhar cluster for machinery parts and agricultural implements.

Medical and Surgical Instruments

The present day healthcare has become completely dependent on electro medical instruments and these have become indispensable tools for medical professionals mainly for diagnosis therapy, and patient monitoring and healthcare delivery system. Medical equipment includes all types of instruments and appliances used in medical, surgical, dental including electro medical apparatus, X-ray machines as well as physiotherapy equipments and orthopedic appliances. During the last 20 years or so with the increased awareness for health, the demand for medical/surgical instruments has gone up substantially. This has accelerated the growth in indigenous production as well as imports. Indigenous manufacturers are currently in a position to manufacture wide variety of electro medical equipment such as electro cardiograph (ECG) machine, X-ray scanner, CT scanners, short wave physiotherapy unit, electro surgical units, blood chemistry analyser etc. However, sophisticated instruments such as nuclear magnetic resonance (NMR) scanners, multi channel monitors etc. are not currently manufactured in the country.

Process Control Instrument Industry

Process control instruments and systems cover wide range of instruments and systems required for monitoring and measurement of physical, chemical and biological properties. They are used for measurement and control process variables like pressure, temperature, humidity, liquid level, flow, specific gravity, chemical composition including pH and many forms of spectrometry and spectrophotometry. The process control instruments have become an integral part of the modern industrial activity. This industry is a key industry which provides tools for automation. Their importance is significant in high cost large and sophisticated process industries like fertilizer, steel, power plant, refineries, petrochemicals, cement and other process industries. The production for the year 2008-09 in the non-SSI sector is reported to be 371.22 crore and in the years 2009-10 (upto Dec. 09) the production was reported at 183.56 crore. In the year 2007-08, there was export of process control instruments (HS code 9032) worth ₹ 196.6 crore against import of around ₹ 1674.7 crore. During the year 2008-09 the import was ₹ 1922.28 crore against export of ₹ 304.11 crore. The Industry is delicensed and 100 per cent Foreign Direct Investment is allowed in this sector under automatic route.

Electrical Resistance Welded (ERW) steel Pipes and Tubes.

High performance ERW steel pipes and tubing possess high corrosion resistance, high deformability, high strength and high toughness. Based on the end-user customers requirement, ERW steel pipes and tubes are available in various qualities, wall thickness and diameters of the finished pipes. These pipes are used in fencing, lining pipes, oil country tubular, scaffolding, water and gas transportation, structural and engineering purpose etc. There has been tremendous increase in the production of ERW steel pipes due to higher demand oil and gas industry, infrastructure and automobile uses. There are large numbers of units in the SSI Sector. The industry is de-licensed and is eligible for automatic approval up to 100 per cent Foreign Direct Investment.

Submerged-Arc Welded (SAW) pipes

There are two types of saw pipes namely longitudinal and helical welded SAW pipes. Longitudinal SAW pipes are preferred where thickness of pipe is more than 25mm and in high pressure gas pipe line. Helical welded SAW pipes are used for low pressure applications. The cost of helical SAW pipes is less than longitudinal pipes. There is huge demand of SAW pipes in the country due to transportation of oil and gas and transmission of water. The approximate export and import figures of the SAW pipes Industry, (HS code 7305) for the year 2007-08 were ₹ 5200.3 crore and ₹ 1238.8 crore respectively. During the year 2008-09 (April-Dec) the import was ₹ 266.19 crore against export of ₹ 7607.17 crore. This industry has very good export potential. The industry is delicensed and upto 100 per cent foreign equity is allowed for the manufacture of this item under automatic rule.

Industrial Fasteners

Fasteners are used in almost all engineering and chemical industries. Therefore the industry fortunes are linked to the performance of their user industries. Automobile industry accounts for bulk of the total demand of this industry. Consumer durables and railways are the other primary users of the high tensile fasteners. Automobile sector is likely to drive growth in the fastener industry. The fastener industry in India may be classified into two segments: high tensile and mild steel fasteners. High tensile and mild steel fasteners broadly include nuts, bolts, studs, rivets and screws. Mild steel fasteners are primarily manufactured by the unorganized sector while high tensile fasteners require superior technology and are dominated by companies in the organized sector. The approximate export and import figures of the industrial fastener (HS code 7318) industry for the year 2007-08 were ₹ 1061 crore and ₹ 1195.4 crore. respectively. During the year 2009-10 (up to December 09) the production was reported 63955 tonnes. The fastener industry is delicensed and is eligible for 100 per cent FDI under automatic route if the item is not reserved for the SSI Sector.

Steel Forgings

Forging has unique value among manufacturing processes. The industry is a key link between critical manufacturing segments-metal suppliers (both ferrous and nonferrous) and user industries. Forgings are intermediate products used widely by original equipment manufacturers in the production of durable goods. The composition of the Indian forging industry can be categorized into four sectors - large, medium, small and tiny. A major portion of this industry is made up of small and medium units/enterprises (SMEs). The industry was previously more labour intensive but now with increasing globalization it is becoming more capital intensive. The Indian forging industry has emerged as a major contributor to the manufacturing sector of the Indian economy. Among the industries that depend on forgings are automotive and truck; agricultural machinery and equipment valves, fittings, and petrochemical applications; hand tools and hardware; off-highway and railroad equipment; general industrial equipment; ordnance and marine; and aerospace. The key driver of demand of forging is the automobile industry. About 65 per cent of the total forging production is used in this sector. Thus, the fortunes of the forging industry are dependent upon the growth of automobile industry. India's forging industry not only meets almost the entire domestic demand of forgings but is also a large exporter and is making a significant contribution to India's exports. The Indian forging industry has shown a commendable performance on export front. Technological

developments have also contributed to the industry's steady growth in export. The major markets are USA, Europe, China, etc. The indigenous industry constitutes about 10 large units followed by large number of medium, small and tiny units. The future is bright in terms of the expected surge in global demand. As a result of the liberalization, more MNCs have entered the domestic automobile market. This has opened up more business opportunities for the forging industry. The approx export and import figures of the forging industry (HS code 7326) for the year 2007-09 the import was ₹ 2771.36 crore against export of ₹ 2134.49 crore. The production of stamping and forging for the years 2008-09 in the organized sector was 381948 tonnes and during the year 2009-10 (upto December 09) the production was reported 266045 tonnes. The forging industry is delicensed and is eligible for 100 per cent FDI under automatic route.

Bicycle Industry

Bicycle manufacturing is an established industry in the country with well accepted quality standards in the international market. India is the second largest bicycle producer of the world, next only to China. India has seen a tremendous increase in the number of bicycle manufacturers and bicycle exporters in the recent past. Most of the manufacturing units are located in Punjab and Tamil Nadu with Ludhiana (Punjab) being a major Bicycle production hub. The industry is making endeavor for enhancing export since there is a significant scope for export of Indian bicycles, bicycle spare parts and bicycle accessories. Bicycle companies in India are now focusing on urban markets and are looking to expand their base in the professional and adventure categories. The approximate export and import figures of bicycle (HS code 8712) for the year 2007-08 were ₹ 115.8 crore and ₹ 42.31 crore respectively. During the year 2008-09 the import was ₹ 71.60 against export of ₹ 169.74 crore. The major export market for Indian bicycle and parts are African as well as South American Countries - Nigeria, Mexico, Kenya Uganda and Brazil. The total production of all kinds of bicycles in the organized sector was 11123.38 th. numbers in the year 2008-09 and in the year 2009-10 (up to Dec. 09) the production was reported at 9325.28 th. numbers. The industry is de-licensed under the current industrial policy and this sector qualifies for 100 per cent FDI under automatic approval.

LIGHT INDUSTRIAL MACHINERY SECTOR

Food Processing Machinery

India is the world's second largest producer of food but the processed food industry in the country is relatively small. The Indian market for food processing machinery has been growing steadily fuelled by strong domestic demand, number of women joining the work force, rapid urbanization, changing life style and mass media promotion. The pattern is likely to continue as more food processing units are commissioned. In recent years there has been a marked shift among consumers for packaged food items in India. The most promising areas of growth are fruit and vegetable processing, meat, poultry, dairy and seafood, packaged/convenience food, soft drinks and grain processing. The approximate export and import figures of food processing machinery (HS code 8438) for the year 2007-08 were ₹ 209.83 crore and ₹ 348.21 crore respectively and during the year 2008-09 (upto December 2009) the export was ₹ 275.31 crore and import was ₹ 421.35 crore. The food processing machinery can be classified under the general category of industrial machinery which is de-licensed under the current industrial policy and this sector qualifies for 100 per cent FDI under automatic approval.

Packaging Machinery Industry

Packaging Machinery Industry Sector has acquired considerable importance due to growing realization that packaging of products be it consumer or industrial is one of the key areas of marketing strategy. Developments in packaging technology have not only contributed to improving aesthetic appeal of the products but also the shelf life. In some cases specialized packaging becomes a technical necessity. In a competitive environment where Indian products have to compete in the international markets, packaging apart from other aspects, can tilt the balance.

Water Pollution control Equipment

The various categories of water pollution control equipment broadly include waste water treatment plants, drinking water treatment plants and effluent treatment plants. As water is a scarce commodity, preservation and reuse of water has assumed great importance and with growing awareness of preventing water pollution and stringent environment control standards being enforced for various process industries, the water treatment industry has a good scope for growth. Water/waste treatment is the process of removing contaminants and it includes physical, chemical and biological processes to remove physical, chemical and biological contaminants. The primary treatment is the first step in the treatment process and involves the removal of pollutants that settles or floats. The common industrial equipments are clarifiers and oil - water separator devises. The secondary treatment is designed to substantially degrade the biological content of the sewage. The common equipments are activated sludge, filters, biological reactors etc. The tertiary treatment is a polishing step to remove contaminants that missed in the primary and secondary treatment and removal of filtration and carbon adsorption. Chemical processes are used to remove inorganic and organic, resistant to biodegradation. Chemical process includes precipitation, oxidation and neutralization. The biological processes involve biodegrading. Organisms such as bacterial, fungi, yeasts and algae are commonly used to break down the organic matters. The cell tissues are then removed from the treated water by physical method like clarification. The complete plants are manufactured in the organized sector and many of the equipments are manufactured in the Small Scale Sector as well. Reputed foreign companies from US, Germany, France, Sweden and UK have either set-up their own facilities in India or have collaboration with Indian Companies. The industry is capable of meeting major domestic requirements. However, there is need for continuous up-gradation in technology especially with regard to power consumption and efficiency. The industry is included in the Industrial Machinery Sector and is a de-licensed one and is also eligible for 100 per cent FDI under automatic approval.

Air Pollution Control Equipment

Air pollution particularly in the country especially in metropolitan cities and large towns has assumed great significance with the adoption of stringent environmental control standards for various industries. Hence our pollution control equipment industry has acquired importance. Further judicial pronouncements have given a definite direction and urgency for adoption of air pollution control measures. Industrialization and urbanization have resulted in a profound deterioration of India's air quality. India's most severe environmental problem, come in several forms, including vehicular emissions and untreated industrial smoke. The choice of control method depends on factors such as the nature of pollutant, flow-rate (amount of pollutant emitted), particle size and desired collection efficiency. The air pollution

control equipments are broadly classified under the categories such as Setting Chambers, Cyclone and multi- cyclones, Bag Filters, Wet Scrubbers, Spray Tower, Venturi Scrubber, Ionizing Scrubber and Electrostatic Precipitator. The industry is in position to do basic and detailed engineering and supply of plants on turnkey basis. Some of the indigenous units have collaborations with internationally reputed firms in this field. Air pollution control equipment is de-licensed and is eligible for automatic approval upto 100 per cent Foreign Direct Investment.

Industrial Gears

Gears are a means of changing the rate of rotation of a machinery shaft. Gears being an important part of a machine have immense usage within various industries. These industries include automotive industries, coal plants industry, steel plants industry, paper industry, in mining and many more. In these industries they behold a wide area of application. They are used in conveyors, elevators, kilns, separators cranes and lubrication systems. Gearbox is defined as a metal casing in which a train of gears is sealed. The manufacture of gears and gear boxes involve high precision machining and accurate assembly as mechanical power is to be transmitted noiselessly and with minimum losses. Different types and sizes of gears such as spur gears, helical gears, worm gears, spiral gears and many other kinds are manufactured in the country. The demand for gears and gear boxes predominantly depend on the growth of industrial machinery, machine tools, and consumer and automobile sector. Considering the industrial growth prospects, particularly in automobile sector, the demand for gears and gear boxes is expected to grow at a healthy pace. The industry is delicensed and is eligible for 100 per cent FDI under automatic route.

Metal Container Industry

This industry is delicensed. The principal types of metal (tin) containers are food containers generally known as OTS (Open Top Sanitary) cans and General Line Containers for packaging non-food commodities such as paints, lubricants, pesticides, etc. There are a large number of units in the small scale sector mainly manufacturing 18 litre capacity oil containers. The production during 2008-09 was 39,069 tonnes and production during 2009-10 (up to December 09) was 23,832 tonnes. The export and import of tin container during 2008-09 was Rs. 698.95 crore and Rs. 162.25 crore respectively.

Newsprint Segment

The Newsprint industry was delicensed under the Industries (Development and Regulation) Act, 1951 since July, 1997. The paper mills producing newsprint conforming to BIS standards and supplying to newspaper publishers are considered for inclusion in schedule of Newsprint control order, 2004 enabling them to avail exemption of excise duty. There are at present 101 mills including two Central Public Sector units and two State Public Sector units, which are manufacturing newsprint paper with a total installed capacity of 15.8 lakh tonnes. The domestic production of newsprint is 11.0 lakh tones for the year 2008-09 and 5.65 lakh tonnes in the year 2009-10 (April-October).

Paints and Allied Products Industry

The Paints and Allied Industry has been exempted from compulsory licensing, and comprises two sectors, viz. organised sector and small scale sector. The Paints and

Allied Products Industry mainly consists of paints, enamels, varnishes, pigments, printing inks, synthetic resins, etc. These play a vital role in the economy by way of protecting national assets from corrosion. The market share for organized share is approximately 57 per cent whereas share for Small and Medium Enterprises (SME) sector is approximately 43 per cent. The organized sector comprises of about 10-12 players.

Photo Goods Industry

Photo Goods Manufacturing Industry is a de-licensed industry. Photo Goods comprise of black and white, colour products, medical imaging films and special photo sensitive goods. The industry caters to mass consumption in health sector, in the amateur and professional Cinema, Camera films and graphic art films for education and defense requirements. Photo Goods are also required for the aerial survey purposes. The production of Photo Films/Roll film during 2008-09 was ₹ 44.28 crore and production during 2009-10 (up to December 09) was ₹ 31.95 crore.

Paper Industry

The paper industry in India is one of the 35 high priority industries having a bearing on socio-economic development of the country. The key social objective of the Government namely eradication of illiteracy through compulsory primary education bears a direct relation with the paper industry. The Indian paper industry plays a pivotal role in overall industrial growth and provides the vital vehicle needed to propel the knowledge based economy of the country in the new millennium. The surging economic growth of the country has resulted in an overall average rate of growth of about 6 per cent for the Indian paper industry against the world average of about 3 per cent. With the recession taking route in December 2007, fears were expressed regarding its impact on the sectoral demand. Fortunately due to large indigenous consumer-base, the demand for cultural varieties of paper was not affected significantly. However the packaging sector did exhibit recessionary trends.

Paper and Paperboard Segment

India is self sufficient in most grades of paper and paper boards. Traditionally, only certain specialty papers have been imported in to the country to meet the local requirements. The domestic production of Paper and paper Board is 65.4 lakh tones for the year 2008-09 and 40.84 lakh tones in the year 2009-10 (April to October).

Rubber Goods Industry

The Rubber Goods Industry excluding tyre and tubes, consists of about 4400 Small and tiny units generating about 4.5 million direct jobs. The rubber industry manufactures a wide range of products like conveyor belts, rubber hoses, surgical gloves, balloons and rubber moulded goods, etc. The main raw materials used by the rubber goods manufacturing industry are Natural Rubber, various types of Synthetic Rubber, Carbon Black, Rayon, Rubber Chemicals etc. The main raw materials used by the Rubber Goods Industry are natural Rubber, Synthetic Rubber, Styrene Butadiene Rubber (SBR), Poly Butadiene Rubber (PBR) and Carbon Black, etc. The Rubber Goods Industry had an annual turnover of ₹ 14,100 crore in 2008-09 against ₹ 13,656 crore in 2007-08. The estimated turnover of the industry for the year 2009-10 is ₹ 15000 crore. The industry exported goods worth ₹ 2750 crore in 2008-09 as against ₹ 2594 in 2007-08. The Rubber Goods worth ₹ 3200 crore is estimated to be exported in 2009-10.

Tyre Industry

Tyres play an integral role to ensure mobility including movement of passengers and essential goods across the urban and rural landscape of the country using all types of vehicles ranging from carts, tractors, trucks and buses to the latest generation passenger cars that ply on the modern expressways. All types of tyres required to meet the domestic demand are manufactured in India. These tyres include Moped tyre weighing 1.5 kg to Off the Road tyres for Earthmovers which weigh about 1.5 tonnes, Bias Ply tyres to rugged all steel radial truck tyres to high performance passenger car radial and tubeless tyres etc. India is one of the few countries worldwide which has attained self sufficiency in manufacturing a wide range of tyres for all applications. Indian Tyre Industry consists of 36 Companies with 51 tyre manufacturing plants. The 10 large tyre companies account for 95 per cent of industry turnover in value and tonnage terms. The industry has estimated turnover of ₹ 25,000 crore in 2009-10. It has estimated exports to the tune of ₹ 3,000 crore in 2009-10. Indian tyres are exported to over 75 countries worldwide. About 15 per cent of domestically manufactured Truck and Bus tyres are exported. Exports are in highly competitive environment. India's share in world tyre market is 5 per cent. Three Indian Companies are in the list of top 25 Global Tyre companies. All large Indian tyre companies have initiated major capacity expansion programmes. New Greenfield investments are also in the pipeline.

Salt Industry Introduction

India continues to hold 3rd position in the production of salt in the world after China and US with an average annual production of about 191 lakh tones and second largest producer of iodised salt next to China. From an era of short fall and import at the time of independence, the country has made spectacular progress in the production of salt due to the pragmatic policies of the Government. In a very short period of time, sufficiency was achieved (in 1953) and made a dent in the export market. Since then the country has never resorted to imports.

INDIAN TEXTILES

The Indian Textiles Industry has an overwhelming presence in the economic life of the country. Apart from providing one of the basic necessities of life, the textiles industry also plays a pivotal role through its contribution to industrial output, employment generation, and the export earnings of the country. Currently, it contributes about 14 per cent to industrial production, 4 per cent to the GDP, and 12.53 per cent to the country's export earnings. It provides direct employment to over 35 million people, which includes a substantial number of SC/ST, and women. The Textiles industry also plays a pivotal role through its contribution to industrial output, employment generation, and the export earnings of the country. Currently, it contributes about 14 per cent to industrial production, 4 per cent to the GDP, and 12.53 per cent to the country's export earnings. It provides direct employment to over 35 million people, which includes a substantial number of SC/ST, and women. The Textiles sector is the second largest provider of employment after agriculture. Thus, the growth and all round development of this industry has a direct bearing on the improvement of the economy of the nation.

Due to policy measures initiated by the Government in the recent past, the Indian textiles industry is in a stronger position than it was in the last six decades. The industry which was growing at 3-4 per cent during the last six decades has now

accelerated to an annual growth rate of 8-9 per cent in value terms. The catalyst for this exponential growth is a buoyant domestic economy, substantial increase in cotton production, conducive policy environment provided by the Government and the end of the Multi Fibre Arrangement (MFA) on December 31, 2004. The rationalization of fiscal duties undertaken during the last few years has also provided a level playing field in all segments of the industry resulting in the holistic growth of the industry. A strong foundation for industry has been laid on which world class manufacturing units can realize their full potential and make a mark in the international economy.

The growth manifests through a consistent increase in production of fabric and investments. During 2009-10, the production of fabric was 59.76 billion sq mtrs as compared to 45.38 billion sq mtrs in 2004-05. The textiles sector has witnessed a spurt in investment during the last five years increasing from ₹ 15,032 crore in 2005-06, to ₹ 66,233 crore in 2006-07, to ₹ 19,917 crore in 2007-08, ₹ 55,707 crore in 2008-09. During 2009-10 investment was ₹ 27611 crore (provisional). It is expected that investments will touch ₹ 1,50,600 crore by 2012. This enhanced investment will generate 17.37 million jobs (comprising 12.02 million direct and 5.35 million indirect jobs) by 2012.

EXPORTS

The Indian textiles and clothing industry is the cornerstone of the national economy and it contributes 13.14 per cent to the country's merchandise exports. After coming to end of Multi Fibre Arrangement (MFA), the industry started scaling up, improving efficiencies and modernizing technologies. Within one year of the MFA regime coming to a close on December 31, 2004, Indian exports grew at a rate of 22 per cent. The exports of textiles and clothing during 2004-05, 2005-06 and 2006-07 were US\$ 14 billion, US\$ 17.52 billion and US\$ 18.73 billion, respectively. India's textiles and clothing export has observed ups and downs in recent times, initially due to appreciation of Indian Rupee in 2007-08 and subsequently on account of global meltdown. During 2007-08, textiles exports from India were US\$ 22.44 billion against the target of US\$ 25.06 billion. In 2008-09, due to global economic slowdown textiles exports witnessed a downfall and reached US\$ 21.56 billion. However, during 2009-10, Indian Textiles and clothing exports grew at a rate of 8.9 per cent and touched a level of US\$ 23.49 billion.

Technology Upgradation

The Indian Textiles Industry has suffered from severe technology obsolescence and lack of economies of scale, which in turn diluted its productivity, quality and cost effectiveness, despite distinctive advantages in raw material, knowledge base, and skilled human resources. The Technology Upgradation Fund scheme (TUFS) was launched on April 1, 1999, initially for five years. To sustain and improve competitiveness and overall long term viability of the textiles industry and to facilitate its access to timely and adequate capital at internationally comparable rates of interest, it was subsequently extended till March 31, 2007, and has now been extended till March 31, 2012, and has now been extended till March 31, 2012.

The Government, under the scheme, reimburses (4 per cent for spinning sector) 5 per cent of the interest charged by banks and financial institutions, thereby ensuring credit availability for units planning to upgrade technology. Besides, the scheme provides 15 per cent margin money subsidy in lieu of 5 per cent interest subsidy for SSI units engaged in textiles and jute sub-sectors, 20 per cent margin money subsidy

in lieu of 5 per cent interest support for decentralized powerlooms units for investment in TUFs compatible machinery. For specified machinery required for processing, garments and technical textiles segments, the scheme provides 10 per cent capital subsidy, besides 5 per cent interest subvention for specified machinery. The imported second hand machinery is ineligible for assistance under the scheme, except automatic shuttle less looms, with a value cap of ₹ 8 lakh and of 10 years vintage and with residual life of 10 years. The scheme covers almost all the segments of textiles sector.

Under the technology Upgradation Fund scheme meant for modernisation of the textile industry, a subsidy of ₹ 2,546 crore was released on August 06, 2009, in a single tranche, for the first time, with the amounts credited to the bank accounts of all beneficiaries numbering 12,514 in a record time of 72 hours (3 working days) reconstituting an effective addition to the stimulus packages announced by the Government. A sum of ₹ 2,885.98 crore during 2009-10 has been disbursed towards the subsidy during 2009-10. The scheme has catalyzed an estimated investment of approximately ₹ 23,333 crore upto December, 2009. Against Budget Estimates of ₹ 2267.50 crore (except NER) during 2010-11 ₹ 1527.00 crore have been released so far.

Technical Textiles

The Ministry of Textiles is focusing on the development of technical textiles, which is an emerging industry with a huge potential to attract investment. The global market size of technical textiles which was US \$ 107 billion in 2005 is expected to jump to US \$ 127 billion by 2010 from US\$ 6.7 billion in 2005 (CAGR 11.25and).

The Government is implementing the Development and growth of the Technical Textiles Scheme during the XIth Five year Plan period. Four Centres of Excellence (CoE) have started functioning for Agrotech at Mumbai; Geotech at Ahmedabad; Meditech at Coimbatore; and Protech at Ghaziabad. Four national level worksops and 17 workshops/seminars/training programmes were organised in different parts of the country to attract investors. Government has approved Technology Mission on technical Textiles with an outlay of 200 crores.

INFRASTRUCTURE DEVELOPMENT

The Government proposes to develop world-class infrastructural and production facilities for handicrafts, handlooms, and decentralised powerlooms clusters with a minimum of 5,000 looms (handlooms and powerlooms) through the adoption of a Comprehensive Cluster Development approach.

The Scheme for Integrated Textiles Parks (SITP) was launched in July 2005 by merging two earlier schemes, viz, Apparel Parks for Export Scheme (APES) and Textiles 646 India 2010 Centre Infrastructure Development Scheme (TCIDS). It aims to infrastructural facilities in potential textiles growth areas. Out of the 40 Parks sanctioned at present under SITP, 3 Parks have been released 100 per cent grant assistance upon completion, 16 Parks have been released 90 per cent grant assistance. 21 Parks have commenced commercial production and 6 parks have been inaugurated till date where all basic infrastructure works has been completed.

National Textile Corporation (NTC)

NTC has modernised 17 mills. Of these, 4 mills in Coimbatore (Tamil Nadu) and 3 mills in Mumbai were inaugurated and are already in production.

NTC was given the privilege of having the official licensee against the homeware category of Commonwealth merchandise for supply of bed sheets, cluvets, towels etc. to Commonwealth Games Village.

RAW MATERIAL**COTTON**

Cotton is one the principal crops of the country and is the major raw material for the domestic textiles industry. It provides sustenance to million of farmers and contributes significantly to the country's export earnings. The Country has the distinction of growing all the four cultivated species of cotton viz., *Gossypium arboretum*, *G. herbaceum* (Called Desi/Asian cotton. The Indian textiles industry consumes a diverse range of fibre and yam, but is predominantly cotton based. The ratio of the use of Cotton to Man-made fibres and filament yarns by the domestic textiles industry is 56.44.

Presently, India is the second largest producer of cotton (4.13 mn. metric tones), accounting for 16 per cent of global production, with the largest cultivated area in the world. The States of Punjab, Haryana, Rajasthan, Gujarat, Maharashtra, Madhya Pradesh, Andhra Pradesh, Karnataka and Tamil Nadu account for 99 per cent of cotton production in the country. Recently, India has overtaken the USA to become the second largest producer of cotton in the world. This was due to focused support to farmers provided by the Government, which has resulted in an increase in productivity as well as production. Since 2005-06, India is the net exporter of cotton.

The cotton production reached 290 lakh bales (170 kg. each) in the cotton season of 2009-09. The productivity of cotton has jumped to 591 kg lint/hectare in the cotton season of 2008-09, from 399 kg lint/hectare in the cotton. In 2006-07, 58 lakh bales of cotton were exported against 47 lakh bales in 2005-6, and 0.84 lakh bales in 2002-03. In 2007-08, exports of raw cotton exceeded the target of 65 lakh bales and were 80 lakh bales mainly due to fall in acreage in the USA and higher global demand. Consequently, cotton imports have declined from around 17 lakh bales in 2002-5 to 5 lakh bales 2006-07. The Imports were around 6.5 lakh bales in 2007-08. The cotton export during the cotton season of 2008-09 were 60 lakh bales, and imports were of 7 lakh bales.

From October end 2007 till July 2008, the cotton prices had been higher by around 20 per cent to 40 per cent compared to last year. The opening cotton prices during the fiscal 2007-08 had been higher by around 4 per cent to 17 per cent as compared to previous year. This was affecting the viability of textiles mills, and on the persistent demand of the Industry, the Government abolished import duty of 14.7 per cent, and drawback benefits on raw cotton w.e.f. July 8, 2008. The measure helped in stabilizing the prices. Industry 647 A significant increase in the cotton production has increased the availability of raw cotton to the domestic textiles industry at competitive prices, providing it with a competitive edge in the global market. The reasons for increase in the production include increasing usage of Bt cotton and the implementation of the Technology Mission on Cotton (TMC). The area under the Bt cultivation, which was around 5 lakh hectares in the cotton season of 2003-04, has gone up to 65 lakh hectares in the cotton season of 2008-09.

Cotton Sales Depots

The Government of Tamil Nadu has exempted VAT of 4 per cent on cotton produced in the State for a period of one year from 15.12.2009 to 14.12.2010. The Cotton Corporation of India has requested the Government of Tamil Nadu to extend the period upto 14.12.2011 for successful continuation of the depot Sales Scheme.

The Ministry of Textiles has approved the proposal for opening sales depot at Punjab (Ludhiana) and Himachal Pradesh (Baddi) also.

MINIMUM SUPPORT PRICE (MSP) OPERATIONS

The Government is operating the Minimum Support Price (MSP) Scheme through the agency of Cotton Corporation of India Ltd. (CCI), a public sector enterprise, to ensure a minimum return to the farmer even in the depressed market conditions. The support prices are fixed by the Government for two basic varieties of cotton of fair average quality, recommended by the Commission for Agriculture Costs and Price (CACP). While one is the medium long staple length group of 25 mm-27 mm of the variety F414/H-777/J-34, the other is the long staple group of 27.5 mm-32 mm which is of the variety H-4. Based on the support price of these two basic varieties and taking into account the normal price differential and other relevant factors., the MSP for other varieties of seed cotton of fair average quality are fixed by the Textiles Commissioner.

The MSP of medium staple cotton of length group 24.5 mm, has been raised by a record 39 per cent to ₹ 2,500 per quintal in the cotton season of 2008-09. The MSP last was ₹ 1,800 per quintal. The MSP for long staple variety of length group 29.5 mm to mm has been raised to ₹ 3,000 per quintal in the cotton season of 2008-09 from ₹ 2,250 per quintal in the cotton season of 2007-08.

MAN-MADE FIBRE

The Man-Made Fibre (MMF) and yarn industry comprises fibres and filaments of both cellulosic and non-cellulosic origin, generally referred to as rayon and synthetic fibres/yarns. The man made fibres play an important role in manufacture of Textile items especially Technical Textiles. While most textiles producing countries have a consumption ratio of MMF to cotton as 60:40 in India it is still 44:56. Considering the importance of this sector, Government is promoting the MMF sector and production of such fibres and yarns has shown a rising trend during the last five years to the extent that India is now the fifth largest producer in the world.

JUTE AND JUTE TEXTILES INDUSTRY

The Jute industry occupies an important place in the national economy. It is one of the major industries in the eastern region, particularly in West Bengal. Jute, the golden fibre, meets all the standards for safe packaging in view of being a natural renewable, biodegradable and eco-friendly product.

Globally, India is the largest producer and second largest exporter of jute goods and this sector supports the livelihood of about 40 lakh farm families, and provides direct and indirect employment to 4 lakh workers. There are 77 Jute mills in the country. Of these 60 are in West Bengal, 3 each in Bihar and Uttar Pradesh, 7 in Andhra Pradesh, and one each in Assam, Orissa, Tripura and Chhattisgarh. Annually, the export of Jute products ranges between ₹ 1,075-1,100 crore.

The production of raw jute varies between 90-100 lakh bales (180 kg. each), and the domestic consumption of jute goods is in the range of 13.5-14.5 lakh MT. The ratio of domestic consumption to exports is 8:-20. The production of jute is concentrated in 36 districts of West Bengal, Orissa, Bihar, Assam, Meghalaya, Tripura and Andhra Pradesh. In the 2008-09 jute season (July-June), the production of raw jute was 90 lakh bales (180 kgs. each)

The Government on June 2, 2006, approved the implementation of the Jute Technology Mission (JTM) at an estimated cost of ₹ 355.55 crore, of which the outlay

for mini mission III and IV is ₹ 38.60 and ₹ 260.00 crore respectively. The Department of Agricultural Research and Education, Ministry of Agriculture, launched the Mini Mission I of the Jute Technology Mission (JTM) on November 9, 2006. The Department of Agriculture and Cooperative, Ministry of Agriculture, launched Mini Mission II of JTM on December 21, 2006. Mini Mission III and IV were launched by the Ministry of Textiles on February 6, 2007. The JTM comprises four Mini-missions:-

- (i) Mini-mission 1-Strengthening of Research and Development
- (ii) Mini-mission II- Transfer of Technology
- (iii) Mini-mission III-Development of Marketing Infrastructure
- (iv) Mini-mission IV-Modernisation/Upgradation of Technology of Jute Sector and Initiation of activities for promotion of Jute Diversified Products.

The cap on subsidy for Acquisition of Machinery and Plant under Jute Technology Mission has been raised to ₹ 3.5 crore per mill and ₹ 4 crore per mill in respect of new mills in North Eastern Region (NER). A subsidy of ₹ 31 crores has been disbursed under the Scheme (corresponding to investment of ₹ 155 crores) for modernization of Jute Mills. An ambitious Skill Development Programme has been designed to train 30 lakh workers over a period of 5 years with an outlay of ₹ 2,200 crore. The Government, in first phase has sanctioned pilot scheme with Outlay of ₹ 272 crores and physical target of 2.57 lakh persons. The first project (SMART) run by ATDC) has been launched.

The revival package of National Jute Manufactures Corporation (NJMC) has been approved which envisages operationalisation of three jute mills viz. Kinnison and Khardah in West Bengal and Rai Bahadur Hadrut Mill (RBHM), in Katihar, Bihar. The Trial runs in the three jute mills have been completed.

The Ministry of Rural Development to construct about 1,000 km. of rural roads using Jute Geo textile and Indian Railways would be more using Jute Geo Textiles in track repair and new tracks. In addition, International project with IJSG for testing, standardization and certification of JGI has been launched.

VILLAGE AND SMALL ENTERPRISES SECTOR

Sericulture and Silk Textiles Industry

Globally India is the second largest producer of silk and contributes about 18 per cent to the total world raw silk production. India has the unique distinction of being endowed with all the four varieties of silk namely Mulberry, Eri, Tasar, and Muga. It is one of the most labour intensive sector, combining activities both agriculture (Sericulture) and industry. Silk is a highly remunerative cash crop, with minimum investment but rich dividends, and is the only cash crop which provides sustained returns throughout the year. The sericulture sector provides employment to about 6 million people, mainly in rural areas.

The Government of India has concurrent responsibility for the development of the Silk industry in the country, which it fulfils mainly through the Central Silk Board (CSB), a statutory body, constituted under the Central Silk Board Act, 1948.

CSB implements the Catalytic Development Programme (CDP) in the silk producing States which provides support and incentives for the production of quality cocoons and raw silk. Support and incentives are provided mainly to small and marginal farmers and small entrepreneurs, under both on-farm and off-farm activities, in mulberry and non-mulberry sectors. Most CDP schemes are implemented jointly

by CSB and the Sericulture Departments of the State Governments, and also through the cluster approach/SGSY programme of the Ministry of Rural Development. Generally, State Sericulture Departments are the major implementing agencies for the CDP.

During 2008-09, the production of raw silk was 18,360 mt. against a demand of around 26,000 mt. and exports amounted to ₹ 2,637 crore. The export basket consists of Natural Silk Yarn, Fabrics, Made-ups, Readymade Garments, Silk Carpets, and Silk waste. The total silk production during 2009-10 is anticipated as 22.855 mt.

The Silk Mark Scheme was launched for the brand promotion of Silk. The Central Silk Board (Amendment) Act, 2006 was enacted to regulate the quality of Silk-worm seeds, and came into force w.e.f. September 14, 2006.

The Wool and Woollen Textiles Industry

The woollen textiles industry is a rural based, export oriented industry in which the organized sector, the decentralized sector and the rural sector complement each other. This industry provides employment to 27 lakh workers in a wide spectrum of activities. The country is the sixth largest producer of wool and contributes 3 per cent to total world production. The production of indigenous raw wool was 48 mn. kg in 2008-09. Of the total production of raw wool, 5 per cent is apparel grade, 85 per cent carpet grade, and 10 per cent coarse grade. Domestic produce is not adequate, therefore, the industry is dependent on imported raw material. Wool is the only natural fibre in which the country is deficient.

A small quantity of specialty fibre is obtained from pashmina goats and Angora rabbits. There are 958 woollen units in the country, the majority of which are in the small scale sector. Government is implementing the integrated Wool Improvement and Development Programme (IWIDP). Quality processing of Wool and Social Security Scheme for the growth and development of the wool and woollen industry in the country. The programme is being administered by the Central Wool Development Board (CWDB), Jodhpur, through State Government Organizations/NGOs etc.

Decentralized Powerlooms Industry

The Decentralized Powerlooms sector is one of the most important segments of the textiles industry as it provides employment to 56 lakh workers and contributes 62 per cent of total cloth production in the country. There are 22.55 lakh powerlooms in the country. The cloth output from this decentralised sector had increased from 30.63 billion sq. mtrs in 2005-06 to 33.65 billion mtrs in 2008-09. More than 60 per cent of the fabric meant for export is sourced from powerlooms sector. The ready-made garments and home textiles sectors are heavily depended on the powerlooms sector to meet their fabric requirement. The major powerlooms cluster are at Erode, Salem, Madurai, Ichalkaranji, Solapur, Bhiwandi, Burhanpur, Bhilwara, Kishangarh, Ludhiana, Amritsar and Panipat.

The Government, in an effort to modernize the powerloom sector, have simplified procedures to access loan under the Technology Upgradation Funds scheme (TUFS) and provided an additional option to the decentralized powerlooms sector to avail 20 per cent margin money subsidy till 2012, in lieu of 5 per cent reimbursement on investment in TUFS compatible machinery.

Handlooms

Handlooms play a very important role in the country's economy and provide direct or indirect employment to about 6.5 million people. Today, while the sector faces

competition from powerlooms and the textile mills, and is constrained by its continued dependence on the co-operative delivery machinery, effective state intervention in the form of market and design support, as well as other developmental welfare schemes have helped it to withstand competition. The Government of India has also ensured the availability of raw-material to handloom weavers through the Hank Yarn Obligation Order.

The fabric production, which was witnessing a down turn has staged a smart recovery. The sector produced over 6,108 million sq. mtrs. of cloth in 2005-06 and 6,536 million sq. mtrs. of cloth in 2006-07 and 6,947 million sq. mtrs in 2007-08. In 2008-09 the production was expected to be 6,677 million sq. mtrs. The Government had for the first time adopted the clusters development approach for the comprehensive and holistic development of selected handloom clusters. 52 new clusters in the handlooms were taken up for skill upgradation, during 2009-10. Niche handloom products were provided a marketing platform through 561 marketing events during 2009-10. These events generated a business of over ₹ 350 crore. Under Handloom Weavers Comprehensive Welfare Scheme 16.11 lakh weavers and ancillary workers were provided Health Insurance coverage and 5.10 lakh with life insurance coverage. Under the Rajiv Gandhi Shilpi Swasthya Bima Yojana. 7.33 lakh artisans were provided with health insurance coverage.

The new Health Insurance Scheme was launched on November 3, 2005. The Scheme covers all pre-existing and new diseases. Besides, Mahatma Gandhi, Bunker Bima Yojna was launched on October 2, 2005 in collaboration with the Life Insurance Corporation of India Ltd (LIC), to cover natural and accidental deaths. To give a distinctive identity to handlooms products, the Handloom Mark was launched on June 28, 2006, by the Prime Minister, Dr. Manmohan Singh.

Handicrafts

Handicrafts represent the rich and diverse cultural heritage of the country. Their cultural importance pertains to ensuring the preservation of heritage, traditional skills and talent. Their economic importance lies in their high employment potential, low capital investment, high value addition, and potential for export/foreign exchange earnings. The Sector provides employment to an estimated 76.17 lakhs artisans during 2010-11 of which 47.42 per cent are female, 24.73 per cent belong to Scheduled Castes, and 12.38 per cent to Scheduled Tribes and 22.99 are minorities.

The Government had launched the Rajiv Gandhi Shilp Swasthya Bima Yojana in March 2007 to provide health care services to the artisans family, including self, spouse and two children. The Handicrafts sector has emerged as one of the most important foreign exchange earners for India on a sustained basis. India is the world leader in exported carpets with 26 per cent of global share. The progress in terms of product range, number of companies and value of exports has been tremendous in 1997-98 exports of handicrafts were ₹ 6457.69 crore and these reached the peak of industry ₹ 20,963 crore (including hand-knotted carpets) in 2006-07. However the exports in 2007-08 were ₹ 17,537 crore (US\$ 4.36 billion), indicating a declining trend. The appreciation of Indian rupee against US \$ and recession in developed countries had been the main cause for this. The export during 2008-09 were ₹ 10,892 crore and ₹ 11224.28 crores respectively.

The Government have sanctioned 39 urban Haats across the country on the pattern of Delhi Haat to provide direct marketing outlets to artisans from rural and urban areas. The 20 Urban Haats at following locations have become operational.

Jammu and Srinagar (J&K) Uchana Karnal (Haryana), Jodhpur and Jaipur (Rajasthan), Gohar Mahal, Bhopal (M.P.) Ahmedabad and Bhuj (Gujarat), Mysore (Karnataka). Tirupati (Andhra Pradesh), Bhubaneswar, Konarak and Puri (Orissa), Agra and Varanasi (UP) and Pitampura, and INA (Delhi), Dimapur (Nagaland) and Raipur (Chattisgarh), Mumbai (Maharashtra)

RESEARCH AND DEVELOPMENT

Textiles Research Associations (TRAs)

There are eight Textiles Research Associations (TRAs) the Ahmedabad Textiles Industry Research Association (ATIRA), the Bombay Textiles Industry Research Association (BTRA) the South India Textiles Industry Research Association (SITRA) and the Northern India Textiles Industry Research Association (NITRA) which carry out consultancy, testing training and research and development in cotton and cotton/synthetic as well as cotton/natural fibre blends. The Man-made Textiles Industry Research Association, (MANTRA), and the Synthetic and Art Silk Mills Research Association (SASMIRA) work predominantly in synthetics. The Wool Research Association (WRA), and the Indira Jute Industry's Research Association (IJIRA) carry out work in wool and jute, respectively.

TRAs are Industry promoted bodies and work in a wide range of fibre/technology, areas for product development, process improvement, testing consultancy and address training needs of the industry. The policy initiatives of the Government of India support innovation, investment in RandD, and the generic research programmes of TRAs and encourage industry to support the TRAs to cater to their technological needs.

The Government recognizes that innovation is the key to survival in the globalized world. Continuous innovation in technology, machinery, products and processes is necessary for the Industry to fully exploit the opportunities available in the world market. To achieve the above objective, the Government during the XIth Five Year Plan period (2007-12), is adequately supporting TRAs. Technology is changing fast and equipment is becoming obsolete at a faster pace. To cope-up with such changes, facilities and laboratories of the TRAs are being upgraded.

Textile Committee

The Textiles Committee is an autonomous statutory body established under the Textiles Committee Act, 1963 (4 of 1963). The main objective of the Committee is to ensure quality of textiles for internal consumption for export purposes, and manufacture and use of standard type of textile machinery. Its other major functions, inter alia, include setting up of textile tasting facilities, collection of textile consumption data and publishing time series reports, conducting industry surveys and studies on aspects of quality, productivity etc. and other developmental activities. After onset of liberalization in the early nineties, the Committee discontinued its regulatory role in its entirety and reoriented its role and functions completely. It now concentrates on industry-friendly and development-oriented activities.

HUMAN RESOURCE DEVELOPMENT (HRD)

The textile and apparel sector undoubtedly is India's backbone for rural livelihood and employment. The Textile Industry in India provides direct employment to 35 million persons and indirect employment to another 47 million. It contributes 14 per cent to manufacturing value addition and has a domestic market size of US\$30 billion and exports worth US\$22 billion.

It is projected that by 2012, the Textiles domestic market would grow to US\$ 60 billion and export to US\$ 50 billion. The sector wise employment for all segment, including, apparel, handicrafts, handloom, sericulture, jute etc. is projected to grow to a total of 45.19 million by 2011-12, which means that an additional 12 million jobs could be created, of which 5 million will be in the core technological areas of production activities in the Textiles and garment industry, and the remaining 7 million in supporting and auxiliary services.

As per Study Report in June 2009 on the "Impact of Economic slowdown on the Indian Textile and clothing Industry," the shortage of skilled labour has been ranked as the second most severe business constraint faced by the textile industry. The Report identifies non-availability of trained labour as an impediment to long term growth, and advocates skill development centers to run certified training courses focusing on specific skills required in the industry.

The Government of India has been seized of this situation and there is a need for making aggressive efforts for not only retaining skills but also retraining skills and also for creating a new workforce suitable to the emerging technology environment both in Textiles and Apparel Sector. The Integrated Skill Development Scheme launched by the Textile Ministry addresses this need. It has an ambitious target of training 27 lakh persons over next 5 years covering the entire value chain; spinning, weaving, processing and garmenting from downstream to upstream as well as the skills in the crafts sector as well as in the front-end retail and consumer industries. It is the endeavor of the government through this scheme to reach out to the rural and underprivileged persons and connect them to the employments in both textile and apparel Sector.

The Sardar Vallabhbhai Patel Institute of Textiles Management (SVPITM) was set-up on December 24, 2002 as a National level Institute for Textiles Management at Coimbatore, Tamil Nadu. To provide professional education, including research and consultancy, covering the entire spectrum of textiles. The Sardar Vallabhai Patel Institute of Textiles Management is being upgraded to SVP International School of Textiles Management in phased manner.

MICRO SMALL AND MEDIUM ENTERPRISES (MSME) SECTOR

The Ministry of Micro, Small and Medium Enterprises (MSME) performs its tasks of formulation of policies and implementation of programmes mainly through Office of the Development Commissioner (MSME), National Small Industries Corporation Ltd. (NSIC), Khadi and Village Industries Commission (KVIC) and Coir Board. The Micro, Small and Medium Enterprises Development Organisation (Earlier known as Small Industries Development Organization) set up in 1954, functions as an apex body for sustained and organized growth of micro, small and medium enterprises.

As an apex/nodal organ, it provides a comprehensive range of facilities and services to the MSMEs through its network of thirty Micro, Small and Medium Enterprises - Development Institutes (MSME-DIs), twenty eight branch MSME-DIs, four Micro, Small and Medium Enterprises - Testing Centres (MSME-TCs), seven Micro, Small and Medium Enterprises-Testing Stations (MSME-TSs), six MSME-Technology Development Centres (MSME-TDCs) (PPDCs), eleven MSME. Tool Rooms (MSME-TRs) and two specialised Institutes namely MSME - Training Institutes, Central Footwear Training Institutes (MSME-TIs). (CFTIs), Agra and Chennai.

Performance of Micro and Small Enterprise Sector

As per the Quick Results of 4th All India Census 2006-07 there were 261.01 lakh enterprises (Registered and Unregistered) in the country, out of which 15.33 lakh were registered working enterprises and 245.48 lakh unregistered enterprises. As per the same Report the employment to 594.61 lakh persons was provided during the said period.

It is estimated that during 2008-09 the number of units has increased to 285.16 lakh from 272.79 lakh in the previous year registering a growth rate of 4.53 per cent. The employment is estimated to have increased to 659.35 lakh during 2008-09 from 626.34 lakh persons during 2007-08.

To help the MSEs in meeting the challenges of globalization, the Government has taken several initiatives and measures in recent years. First and foremost among them is the enactment of the 'Micro, Small and Medium Enterprises Development Act, 2006' which aims to facilitate the promotion and development and enhance the competitiveness of MSMEs. The Micro, Small and Medium Enterprises are defined as under:

A) Manufacturing Enterprises

- i. A micro enterprise, where the investment in plant and machinery does not exceed twenty five lakh rupees;
- ii. A small enterprise, where the investment in plant and machinery is more than twenty five lakh rupees but does not exceed five crore rupees; and
- iii. A medium enterprise, where the investment in plant and machinery is more than five crore rupees but does not exceed ten crore rupees.

B) Service Enterprises

- i. A micro enterprise, where the investment in equipment does not exceed ten lakh rupees;
- ii. A small enterprise, where the investment in equipment is more than ten lakh rupees but does not exceed two crore rupees; and
- iii. A medium enterprise, where the investment in equipment is more than two crore rupees but does not exceed five crore rupees.

Report of Task Force on MSMEs

Considering the vital role of this sector in promoting inclusive growth, the Prime Minister announced setting up of the Task Force on MSMEs in August 2009. The Task Force was constituted under Shri T.K.A. Nair, Principal Secretary to Prime Minister in September, 2009 to reflect on the issues raised by the associations and formulate an agenda for action after discussions with all stakeholders. The Task Force classified the common issues into 6 major thematic areas and constituted separate Sub-Groups for detailed examination. These thematic areas covered credit, marketing, labour, rehabilitation and exit policy, infrastructure, technology and skill development and taxation. A separate Sub-Group was constituted to look into the development of MSMEs in the North-East and Jammu and Kashmir. The Task Force also examined the recommendations made by earlier Committees/Study Groups that had been set up to look into the issues relating to MSMEs. The Task Force submitted its report to the Hon'ble Prime Minister on 30 January 2010 which has been circulated to all concerned including the State/UT Government for implementation of the

recommendations in a time-bound manner. A Council on MSMEs under the chairmanship of Hon'ble Prime Minister has been constituted to lay down the broad policy guidelines and review development of the MSME sector. For ensuring timely/speedy implementation of the recommendations of the Task Force, a Steering Group under the chairmanship of Principal Secretary to the Prime Minister has also been constituted.

National Manufacturing Competitiveness Programme

The Government has launched National Manufacturing Competitiveness Programme (NMCP) for MSMEs, which has specific components that are aimed at enhancing the competitiveness and productivity of the enterprise in this sector so as to withstand global and organized competition and to thrive through better technologies and skills. The ten components of the NMCP seek to introduce the best elements of industrial competitiveness in the MSME sector, which has often been unable to afford such practices and techniques.

These ten components under National Manufacturing Competitiveness Programme for MSMEs being implemented during XIth Plan are:

- i. Lean Manufacturing Competitiveness Scheme
- ii. Design Clinic Scheme for Design Expertise to MSME sector
- iii. Setting up of Mini Tool Room (MTR) and Training Centre
- iv. Support for Entrepreneurial and Managerial Development of SMEs through incubators
- v. Marketing Assistance and Technology Upgradation in MSMEs
- vi. Enabling Manufacturing Sector to be competitive through Quality Management Standards (QMS) and Quality Technology Tools (QTT)
- vii. Building awareness on Investment in Intellectual Property Rights (IPR) for MSMEs
- viii. Technology and Quality upgradation Support to MSMEs/
- ix. Marketing Support/Assistance for MSMEs
- x. Promotion of Information and Communication Technology (ICT) in MSME Sector

Credit Guarantee Fund Scheme for Micro and Small Enterprises

The Government launched the Credit Guarantee Fund Scheme for Micro and small enterprises in August, 2000 with the objective of making available credit to Micro and Small enterprises for loans up to ₹ 100 lakh without collateral/third party guarantees.

The Scheme covers collateral free credit facility (term loan and/ or working capital) extended by eligible lending institutions to new and existing micro and small enterprises up to ₹ 100 lakh per borrowing unit. The guarantee cover provided is up to 75 per cent of the credit facility up to ₹ 50 lakh with an incremental guarantee of 50 per cent of the credit facility above ₹ 50 lakh and up to ₹ 100 lakh (85 per cent for loans up to ₹ 5 lakh provided to micro enterprises, 80 per cent for MSEs owned/operated by women and all loans to NER). One time guarantee fee of 1.5 per cent of the credit facility sanctioned (0.75 per cent for NER including Sikkim) and Annual Service Fee for 0.75 per cent is collected from the MLIs. the scheme is being operated by the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) set

up jointly by the Government of India and SIDBL. The corpus of CGTMSE has been enhanced to ₹ 2031.55 crore with the contribution of ₹ 1625.25 crore from the Gol and ₹ 406.30 crore from SIDBL. As announced in the 'Package for Promotion of Micro and Small Enterprises', the corpus fund will be raised to ₹ 2,500 crore during the 11th Plan.

As on June 30, 2010, 115 Member Lending Institutions comprising 27 Public Sector Banks, 17 Private Sector Banks, 61 Regional Rural Banks (RRBs), 8 Financial Institutions and 2 Foreign Banks have been registered. As on 30th June, 2010, cumulatively 3,72,403 proposals have been approved for guarantee cover for a total sanctioned loan amount of ₹ 14,801.46 crore.

Micro and Small Enterprises -Cluster Development Programme (MSE-CDP)

The Ministry of Micro, Small and Medium Enterprises (MSME) initiated selected interventions in industrial clusters first in 1998 through its scheme 'Integrated Technology Upgradation and Management Programme' (UPTECH). In August 2003, the Scheme was renamed as Small Industry Clusters Development Programme (SICDP) and was broad-based for holistic and integrated development of micro and small enterprises through interventions such as capacity building marketing development, export promotion, skill development, technology upgradation, exposure visits, etc. and setting up of common facilities.

The Ministry simultaneously continued to implement a separate Integrated Infrastructural Development Scheme (IID) (started in 1994) for setting up of industrial estates and to develop infrastructure facilities like power distribution network, water, telecommunication, drainage, roads, storage and marketing outlets, common service facilities, etc. The IID Scheme also provided for upgradation/ strengthening of the infrastructural facilities in the existing industrial estates.

In accordance with the decision of the Government while approving the Package for Promotion of Micro and Small Enterprises, the Scheme was renamed as Micro and Small Enterprises-Cluster Development Programme (MSE-CDP) and the Integrated Infrastructural Development (IID) Scheme of the Ministry was subsumed under MSE-CDP with its existing funding pattern, in October 2007.

Based on the recommendations emerging out of the evaluation of schemes and after consultation with the senior functionaries of the state governments, it was felt necessary to modify the guidelines which envisage streamlining of procedures, providing a more holistic approach to the development of clusters and enhanced level of financial assistance.

The Government of India has approved the modifications in the guidelines of Micro and Small Enterprises-Cluster Development Programme (MSE-CDP) on 28th, January 2010. The modifications in the guidelines of the MSE-CDP have been notified in February 2010. The major modifications are:

- (i) Enhancement of the maximum project cost for Common Facility Centre (CFC) from ₹ 10 crore to ₹ 15 crore, with Gol contribution of 70 per cent (90 per cent for Special Category States and for clusters with more than 50 per cent women/micro/village/SC/ST units);
- (ii) Enhancement of the maximum project cost for Infrastructure Development from ₹ 5 crore to ₹ 10 crore, with Gol contribution of 60 per cent (80 per cent for Special Category States and for clusters with more than 50 per cent women/micro/SC/ST units);

- (iii) Enhancement of the maximum project cost for Soft interventions from ₹ 10 lakh to ₹ 25 lakh, with Gol contribution of 75 per cent (90 per cent for Special Category States and for clusters with more than 50 per cent women/micro/village/SC/ST units); and
- (iv) Enhancement of the cost ceiling for preparation of Detailed Project Report (DPR) for CFC and/or Infrastructure Development to ₹ 5 lakh.

Marketing Investments/Strategies

The process of economic liberalization and market reforms has opened up the Indian Micro and Small Enterprises to the global competition. To help the MSEs in meeting the challenges of globalization, the Government has taken several initiatives and measures. Following are the important ones:

(i) SSI-MDA Scheme for participation in various International Trade Fairs/Exhibitions.

The Scheme is being implemented by the office of Development Commissioner (Micro, Small and Medium Enterprises) The main objectives of the Scheme are to help Micro and Small Enterprises in developing overseas markets and to enhance the exports. MSMEs are facilitated in their efforts to promote marketing and capturing the new market opportunities by way of participation in various domestic and international exhibitions/trade fairs. There is provision to reimburse on stall rent and travel expenses incurred by any entrepreneur with an upper reimbursement ceiling of ₹ 1.25 lakh.

(ii) ISO-9000/ISO-14001/HACCP Certification Reimbursement Scheme

In order to enhance the competitive strength of the small-scale sector, Government of India introduced an incentive Scheme for its quality improvement by reimbursing to micro and small enterprises to acquire ISO certifications. The Scheme envisages reimbursement of charges for acquiring ISO-9000/ ISO-14001/ HACCP certification to the extent of 75 per cent or ₹ 75,000 whichever is less. There are also ceiling limits of ₹ 30,000/ on consultancy charges, which include training.

(iii) Financial assistance by way of 75 per cent reimbursement of one time registration fee/annual recurring fee (for the 1st three years) to MSEs for use of Barcode.

The basic objective of granting financial assistance to the MSEs is to enhance their competitiveness by motivating and encouraging them to adopt Bar Coding. This helps in inventory control, wider acceptability of products in the domestic and world markets, higher efficiencies, lower costs etc.

(iv) Building Awareness on Intellectual Property Rights (IPR)

In the changing global scenario, the issues of IPR have gained special importance for the Micro, Small and Medium Enterprise (MSME) Sector. IPR protection plays key role in gaining competitive advantage in terms of technological gains for achieving higher economic growth in a market driven economy. Majority of the countries have adopted strategies for implementing strong IPR protection for strengthening their Industries and trades. Accordingly, to enable the MSME Sector in India to face the present challenges of liberalization, various activities are funded like awareness / sensitization programme on IPR, assistance for grant on Patent/GI Registration, setting up of IP Facilitation Centre for MSME'.

Skill Development

Ministry of MSME conducts Entrepreneurship Development Programmes (EDPs)/

Entrepreneurship Skill Development Programmes (ESDPs), Management Development Programmes (MDPs) and Industrial Motivation Campaign (IMC) through the Micro, Small and Medium Enterprise Development Institute for the promotion of Micro, Small and Medium Enterprises, EDPs and ESDPs are conducted to cultivate the skills among the unemployed youth for setting up of their Micro, Small and Medium Enterprises. EDPs and ESDPs are conducted to cultivate the skills among the unemployed youth for setting up of their Micro, Small and Medium Enterprises. Under the Management Development Programme (MDPs) existing MSE's entrepreneurs and their managers/supervisors are provided training on various areas of management to develop their skills. To encourage more entrepreneurs for SC/ST. Women and Physically Handicapped groups, stipendiary of programmes are also conducted exclusively for the above categories in which stipend of ₹ 125/- per week per candidate is provided to the participants. Industrial Motivation Campaigns (IMC) are conducted to motivate youth in self employment.

Assistance to Training Institution

This Scheme has two components. Under the first components financial assistance is provided for strengthening training infrastructure of the existing and new Entrepreneurship Development Institute (EDIs) at State/UT level and the second component provides financial assistance for training of potential entrepreneurs and master trainers.

Performance and Credit Rating Scheme

The Scheme is being implemented by the NSIC. The Scheme is aimed to encourage Micro and Small enterprises (MSEs) to undertake credit and performance rating. The rating under the Scheme serves as a trusted third party opinion on the capabilities and creditworthiness of the micro and small enterprises. An independent rating by an accredited rating agency has a good acceptance from the Banks/Financial Institutions, Customers/Buyers and Vendors. Under this Scheme, rating fee payable by the MSEs for the first year only is subsidized to maximum of 75 per cent of the fee or ₹ 40,000/- whichever is less.

Marketing Assistance Scheme

The Scheme is being implemented by the NSIC. The main objective of Marketing Assistance Scheme are to enhance the marketing competitiveness of the MSMEs, to provide them a platform for interaction with the individual/institutional buyers, to update them with prevalent market scenario and to provide them a forum for redressing their problems. MSMEs are facilitated in their efforts to promote marketing and enhance the competency for capturing the new market opportunities by way of organization / participation in various domestic and international exhibitions/trade fairs, buyer-seller meets, intensive-campaigns and other marketing events. The scheme also aims at vendor developments from MSMEs for the bulk manufactures through Buyer-Seller Meet. Further, intensive campaigns and other marketing events are organized all over the country to disseminate/propagate about the various schemes for the benefit of the Micro and Small enterprises and to enrich their knowledge w.r.t. latest developments, quality standards etc.

International Cooperation Scheme

Technology infusion and/or upgradation of Indian MSMEs, their modernization and promotion of their exports are the principal objectives of assistance under the

International Cooperation Scheme. Under the Scheme, associations and organizations of MSMEs are facilitated for participation in international exhibitions/trade fairs.

Rajiv Gandhi Udyami Mitra Yojana (RGUMY)

The main objective of the scheme is to promote and support establishment of new micro and small enterprises through handholding of potential first generation entrepreneurs, who have already successfully completed Entrepreneurship Development Programme (EDP)/Skill Development Programme (SDP)/Entrepreneurship-cum-Skill Development Programme (ESDP) of at least two weeks' duration, or have undergone vocational training. One of the main objectives of handholding is to guide and facilitate the potential entrepreneurs in dealing with various procedural and legal hurdles and completion of various formalities which are required for setting up and running of enterprise successfully and to save them from harassment at the hands of various regulatory agencies for want of required compliances. It will not only increase the proportion of potential entrepreneurs trained under various EDPs/SDPs/ESDPs/Vocational Training (VT) in setting up their enterprises more importantly, it will also enhance survival/success rate of newly set up enterprises.

Survey, Studies and Policy Research: The main objectives of the scheme are - (i) to regularly/periodically collect relevant and reliable data on various aspects and features of MSMEs, (ii) to study and analyse, on the basis of empirical data or otherwise, the constraints and challenges faced by MSME sector as well as the opportunities available to them, and (iii) to use the results of these surveys and analytical studies for policy research and designing appropriate strategies and measures of intervention by the Governments.

SCHEMES/PROGRAMMES UNDER KVI SECTORS

Prime Minister's Employment Generation Programme (PMEGP)

(i) The Government has introduced a new employment generation credit linked subsidy scheme titled Prime Minister's Employment Generation Programme (PMEGP) for setting up micro enterprises in rural and urban areas by merging two existing employment generation programmes of the Ministry namely Prime Minister's Rozgar Yojana (PMRY) and Rural Employment Generation Programme (REGP). It is a significant initiative with a higher level of subsidy than PMRY and REGP. It is estimated to generate around 38 lakh additional employment opportunities in the remaining four years (2008-09 to 2011-12) of XI Plan with a total plan outlay of ₹ 4735 crore including ₹ 250 crore for backward and forward linkages.

(ii) Budget Estimate 2009-10 have provided ₹ 823 crore for PMEGO which includes ₹ 83 crore towards backward and forward linkages including EDP training, publicity, marketing support, e-tracking of applications, physical verification of projects and so on. An estimated 4.20 lakh additional employment opportunities have been generated in 2009-10. Under PMEGP, an amount of ₹ 545.71 crore was released in 2009-10 to KVIC.

Upto March, 2010, 10,702 application have been received by various implementing agencies under PMEGP, of which 1,73,919 candidates have already been selected by District Level Task Forces for assistance under PMEGP. Financial assistance for 67,473 projects has been sanctioned by banks. An estimated 6 lakh additional employment opportunities are targeted to be generated in 2010-11.

Workshed Scheme for Khadi Artisans

Workshed Scheme for Khadi artisans was introduced in July 2008 for providing assistance for construction of workshed for Khadi artisans for providing better work environment. An outlay of ₹ 15 crore has been provided in BEs 2009-10 of which ₹ 5 lakh was earmarked for NER. Funds to the tune of ₹ 13.95 crore (including ₹ 5 lakh for NER) have been released to KVIC in 2009-10. Against the target of providing assistance to 6000 worksheds, assistance to 5951 worksheds (provisional) were provided upto March, 2010. It is estimated that assistance will be provided to 10000 worksheds in 2010-11.

Scheme for Enhancing Productivity and Competitiveness of Khadi Industries and Artisans

The Scheme was approved in July 2008 to assist 200 khadi institutions to make khadi industry competitive with more market driven and profitable production by replacement of obsolete and old machinery and equipment. An outlay of ₹ 8 crore have been released during 2009-10 to KVIC. Against the target of 23 projects, 20 projects were sanctioned upto March, 2010. Under the scheme, a target for assisting 60 khadi institutions has been fixed for 2010-11.

Interest Subsidy Eligibility Certification (ISEC) Scheme

The Interest Subsidy Eligibility Certification (ISEC) Scheme is the major source of funding for the khadi programme. It was introduced in May 1977 to mobilize funds from budgetary sources. Under the ISEC Scheme, credit at the concessional rate of interest of 4 per cent per annum for capital is provided by Banks to the khadi institutions. The difference between the actual lending rate and 4 per cent is paid by the Central Government through KVIC to the lending bank. Institutions registered with the KVIC/State Khadi and Village Industries Board (KVIBs) can avail of financing under the ISEC scheme. Subsidy of ₹ 25 crore was provided by KVIC to banks under this scheme during 2009-10 and target for 2010-11 is ₹ 30.00 crore.

Rebate on sale of Khadi and khadi products used to be made available on sales made till 31st March 2010 by the Government so as to make the price of khadi competitive with other textiles. Normal rebate (10 per cent) used to be throughout the year and an additional special rebate (10 per cent) for 108 days used to be given to the customers. Rebate was allowed only on the sales centres run by the registered institutions which are engaged in the production of khadi and polyvastra. KVIC has released ₹ 86.78 crore to khadi institutions towards rebate during 2009-10. The scheme has since 1 April 2010 been replaced by Market Development Assistance @20 per cent on the value of production of khadi and polyvastra to be shared among artisans, institutions producing khadi and those selling khadi in the proportion 25 per cent, 30 per cent and 45 per cent respectively. A target of ₹ 159 crore has been tentatively fixed for 2010-11.

Product Development, Design Intervention and Packaging (PRODIP)

The Product Development Design Intervention and Packaging (PRODIP) scheme was launched in November 2002 as a small intervention by KVIC with a view to helping selectively indentified khadi institutions to improve the quality of khadi products and also to diversify into new products. The scheme envisages improvement in product quality, introducing new designs and better packaging of products. It also seeks to enhance the marketability of khadi by enlisting the support of professional

designers approved by the institutions or entrepreneurs affiliated to the KVIC or State KVIBs upto ₹ 2 lakh per project per year or 75 per cent of the project cost, whichever is less. In the case of individual entrepreneurs, assistance is available upto ₹ 1 lakh or 75 per cent of the project cost, whichever, is less. Internal studies conducted by KVIC have indicated that production and sale have increased approximately by 13 per cent and 21 per cent, respectively, in the case of projects taken up under PRODIP.

Under this Scheme 171 projects have been sanctioned during 2009-10 and target of 244 project has been fixed for 2010-11.

Khadi Karigar Janashree Bima Yojana

To provide insurance cover to khadi artisan, a Scheme of group insurance in the name of Khadi Karigar Janashree Bima Yojana (JBY) was launched w.e.f. 15 August 2003. This scheme was formulated by KVIC in association with the Life Insurance Corporation of India (LIC) with annual premium of ₹ 200 per beneficiary. KVIC has been able to get the LIC reduce the premium to ₹100, with effect from 2005-06 which is shared as follows - ₹ 50 by Central Government Social Security Fund, ₹ 20 by Khadi Institution and ₹ 12.50 each by khadi artisan and KVIC. Under this Yojana, natural death cover of ₹ 30,000 is provided, while in the case of death due to accident, an amount of ₹ 75,000 is payable and in the case of partial disability ₹ 37,500 is payable to the beneficiary. A financial assistance of ₹ 300 per child per quarter is also provided as scholarship upto two school going children of the artisan as an add-on benefit under this scheme. So far, more than 2.77 lakh artisans have been covered under the JBY.

Khadi Reform Programme

The Government of India has approved a comprehensive Khadi, Reforms and Development Programme amounting to US\$ 150 million with assistance from Asian Development Bank to be implemented over a period of three years. Under this Reform Package, it is proposed to revitalize the khadi sector with enhanced sustainability of khadi, increased incomes and employment, increased artisans welfare and empowerment and to enable KVIC to gradually stand on its own with decreasing dependence on Government Grants. Initially, programme will be taken up in 300 khadi institutions keeping the needs of regional balance, geographical spread and inclusion of backward areas. An amount of ₹ 96 crore was released during the financial year of 2009-10 for implementation of first batch of activities over a period of eight months. An amount of ₹ 192 crore has been earmarked in BEs 2010-11 for taking up the second batch of activities.

Coir Board

Coir Board is looking after the promotion growth and development of coir industry, export promotion and expansion of the domestic market by providing marketing inputs, etc. Coir Board is implementing a number of schemes for the coir sector, which include assistance for participation in international exhibitions, Domestic Market Development, Mahila Coir Yojana, Development of Production, Infrastructure and Scheme for Rejuvenation, Modernisation and Technological Upgradation of Coir Industry.

About 6.75 lakh persons are engaged in this industry and 80 per cent of workforce is women. While the coir industry has roots in Kerala, it has become popular in Tamil Nadu, Karnataka and Andhra Pradesh and is spreading to other cocount growing States like Orissa, Tripura, Goa etc.

The details of production, export and employment in the Coir sector during the last five years are given below:

Year	Production of Coir	Export of Coir		Employment
	Fibre (Qty. in MT)	Qty. Value (In. MT)	Value (₹ Crore)	(No. of Persons)
2005-06	4,10,000	136027	508.45	6,22,000
2006-07	4,30,000	168755	605.17	6,40,500
2007-08	4,37,800	187566	592.88	6,57,000
2008-09	4,91,000	199925	639.97	6,75,000
2009-10	5,15,550	294508	804.05	6,83,600

MT-Metric Tonnes

Target of production of 5,70,000 MT Coir Fibre and exports of coir products of ₹ 800.00 crore has been fixed for 2010-11.

Scheme/programmes under coir-Sector

Scheme for Rejuvenation, Modernisation and Technological Upgradation of Coir

With a view to developing coir industry, the Ministry through Coir Board introduced a new central sector scheme titled 'Scheme for Rejuvenation, Modernisation and Technological Upgradation of Coir Industry' in March 2008 to assist spinners and tiny household sector. Under this scheme, assistance is provided for replacement of outdated ratts/looms and for constructing worksheds to groups of workers so as to increase their production and earning. An outlay of ₹ 21.00 crore was kept in the BEs 2009-10 of which ₹ 2.10 crore has been earmarked for NER against with ₹ 9.73 crore have been released during 2009-10 to Coir Board. Against the revised target for assisting 250 spinning units and 450 tiny household units, 296 spinning units and 410 tiny household units have been assisted. Target fixed for 2010-11 is of assisting 320 spinning and 880 tiny household units.

Mahila Coir Yojana

The Mahila Coir Yojana is the first women oriented self employment scheme in the coir industry which provides self employment opportunities to the rural women artisans in regions producing coir fiber. Conversion of coir fibre into yarn on motorized ratt in rural households provides scope for large scale employment, in productivity and quality, better working conditions and higher income to the workers. The scheme envisages distribution of motorized ratts for spinning coir yarn to women artisans after giving training. Not more than one artisan per household is eligible to receive assistance under the scheme. Women spinners are trained for two months in spinning coir yarn on motorized ratt at the Board's training centres. Under this Yojana, 264 ratts were distributed and 3960 women were trained during 2009-10. A target of distribution of 400 ratts and training for 5000 women have been fixed for 2010-11.

Export Market Promotion

Export promotion is one of the important programme being implemented by Coir Board for sustainable development of the industry. Under this programme, Coir Board in association with trade and industry is participating in major international fairs/exhibitions on a country/product specific basis, product promotion programmes, catalogue show, extending external market development assistance to exporters etc. Coir Board along with coir producers has participated in 9 international exhibitions

during 2009-10 for promotion of exports of coir and coir products. With the efforts of Coir Board, the export of coir and coir products reached the level of Rs. 804.05 crore in 2009-10. A target of Rs.800 crore for exports of coir products has been fixed for 2010-11.

CENTRAL PUBLIC SECTOR ENTERPRISES

The pre-independence, Indian economy was basically agrarian with a weak industrial base, low level of saving (and investment) and near absence of infrastructure facilities. India adopted a mixed economy framework soon after independence, which allowed for the role of both the public sector and the private sector, Consequent to the Second Five Year Plan, in particular, public sector enterprises were established in the different sectors of industry, power and energy, transportation, mining, etc.

Public Enterprises Survey:

The first consolidated report on the working of Central Public Sector Enterprises (CPSEs) was laid in the Parliament in 1961. The latest Public Enterprises Survey (2008-09) is the 49th in the series that was laid in the Parliament on 25 February 2010. There has been an appreciable growth in the investment in the CPSEs over the years. The investment of ₹ 81 crore in 21 CPSEs during 1956 has gone up to ₹ 5,28,951 crore (in 246 CPSEs) as on 31.3.2009. Investment in these CPSEs increased by ₹ 73584 crore in 2008-09 over 2007-08 registering a growth of 16.16 per cent. All the CPSEs, moreover, provided direct employment to about 15.35 million people as on 31st. March, 2009. The CPSEs have been making substantial contribution to Government through payment of dividend, interests payments, corporate taxes and excise duties, Contribution to the Central Exchequer by CPSEs through these avenues amounted to ₹ 1,51,728 crore in 2008-09. The total turnover of the 213 operating CPSEs, on the other hand, during 2008-09 stood at ₹ 12,63,405 crore compared to ₹ 10,94,484 crore in the previous year, showing a growth of 15.43 per cent.

Table below provides an overview of the performance of CPSEs since 1991.

TABLE 4: PERFORMANCE OF CENTRAL PUBLIC SECTOR ENTERPRISES
(1991-92 to 2008-09)

Year	No. of operating CPSEs	Turnover/ Operating Income	PBIT	Net Profit	Prov. for Tax	Dividend Payment	Contribution to Central Exchequer	Gross Internal Resource Generation
1991-92	237	1,33,906	13,675	2,356	1,647	687	19,951	12,943
1992-93	239	1,47,266	15,957	3,271	1,805	792	22,449	14,792
1993-94	240	1,58,049	18,556	4,545	2,110	1,028	22,988	16,676
1994-95	241	1,87,355	22,630	7,187	2,581	1,436	27,472	19,992
1995-96	239	2,26,919	27,587	9,574	4,047	2,205	30,878	24,198
1996-97	236	2,60,735	30,915	10,186	5,192	2,836	39,009	25,554
1997-98	236	2,76,002	37,206	13,582	5,634	3,609	42,289	31,192
1998-99	235	3,10,179	39,727	13,203	6,499	4,932	46,934	31,302
1999-00	232	3,89,199	42,270	14,331	7,706	5,455	56,157	35,933
2000-01	234	4,58,237	48,767	15,653	9,314	8,260	61,037	37,811
2001-02	231	4,47,529	63,190	25,978	12,255	8,068	62,866	52,544
2002-03	227	5,35,165	73,374	32,399	17,432	13,768	81,867	54,273

(₹ in crore)

2003-04	230	5,87,052	99,053	53,084	22,134	15,288	89,035	75,409
2004-05	227	7,44,307	1,09,494	64,963	21,662	20,718	1,10,604	83,863
2005-06	226	8,37,295	1,17,614	69,536	24,370	22,886	1,25,456	85,557
2006-07	217	9,64,890	1,42,888	81,055	34,352	26,819	1,48,789	96,202
2007-08	214	10,94,484	1,54,253	81,314	40,739	28,081	1,65,994	99,861
2008-09	213	12,63,405	1,58,258	84,228	33,700	25,493	1,51,728	1,10,860
Growth in 2008-09 over 2007-08 and over	(-1)	15.43	2.60	3.58(-)	17.28	(-) 9.22	(-) 8.59	11.36
1991-92 (per cent)	(-24)	843.50	1057.28	3475.04	1946.14	3610.17	696.43	756.52

Source : Public Enterprise Survey, 2008-09 and earlier issues

The MoU system in CPSEs was introduced in 1986. The main purpose of the MoU system is to ensure a level playing field to public sector enterprises vis-a-vis the private corporate sector. MoU system in CPSEs is a mutually negotiated agreement between the management of the CPSE and the concerned administrative Ministry/ Department of Government of India. Under this agreement, the performance of the enterprise is evaluated based on the targets set out of beginning of the year. The targets comprise both financial and non-financial parameters having equal weight (50 per cent each). Based on the recommendations of the Second Pay Revision Committee, the Performance Related Pay (PRP) payable to executives in CPSEs, in the case of profit making CPSEs, will be linked to the performance of the CPSEs as evaluated under the MoU system. While only 4 CPSEs signed MoU during 1987-88 the number went up to 202 CPSEs who signed MoUs in 2010-11.

Delegation of Enhanced Powers to CPSEs

Maharatna Scheme

The Government introduced the Maharatna scheme in December, 2009 with the objective to delegate enhanced powers to the Boards of identified large sizes Navratna CPSEs to facilitate further expansion of their operations, both in domestic as well as global markets. The Maharatna CPSEs in addition to having Navratna powers, have been delegated additional powers in the area of joint ventures/subsidiaries and human resources development. The Maharatna CPSEs accordingly can invest ₹ 5000 crore in one project (₹ 1,000 crore for Navratna CPSEs and create below Board level posts upto E-9 level (E-6 for Navratna CPSEs). The Government has currently conferred Maharatna status to 4 CPSEs namely, (i) Indian Oil Corporation Limited, (ii) NTPC Limited, (iii) Oil and Natural Gas Corporation Limited and (iv) Steel Authority of India Limited, in May, 2010.

Navratna Scheme

The Government had introduced the Navratna Scheme in 1997 in order to identify CPSEs that enjoy comparative advantages in their respective sectors, and to support them in their drive to become global giants. The navratna CPSEs have been given enhanced autonomy and delegation of powers to incur capital expenditure to enter into technology joint ventures/strategic alliances, to effect organizational restructuring, to create and wind-up posts up to Board level and to raise capital from domestic and international markets. Restructuring of Board by inducting at least 4 non-official Directors is a pre-condition for exercise of the enhanced powers. Presently there are 15 Navratna CPSEs viz. (i) Bharat Electronics Limited, (ii) Bharat Heavy

Electricals Limited, (iii) Bharat Petroleum Corporation Limited, (iv) Coal India Limited, (v) GAIL (India) Limited, (vi) Hindustan Aeronautics Limited, (vii) Hindustan Petroleum Corporation Limited, (viii) Mahanagar Telephone Nigam Limited, (ix) National Aluminium Company Limited (x) NMDC Limited (xi) Oil India Limited, (xii) Power Finance Corporation Limited, (xiii) Power Grid Corporation of India Limited, (xiv) Rural Electrification Corporation of India Limited and (xv) Shipping Corporation of India Limited.

Miniratna Scheme

The Government had introduced the Miniratna scheme in 1997 in pursuance of the policy objective to make the public sector more efficient and competitive and to grant enhanced autonomy and delegation of powers to the profit making public sector enterprises. The enhanced powers given to Miniratna CPSEs include the power to (i) incur capital expenditure, (ii) enter into joint ventures, (iii) set up technological and strategic alliances and (iv) formulate schemes of human resources management. The administrative Ministries are empowered to declare a CPSE as a Miniratna if it fulfils the eligibility conditions. Presently, there are 61 Miniratna CPSEs (47 category-I and 14 category-II).

Other Profit making CPSEs

Other profit making CPSEs i.e., those which have shown a profit in each of the 3 preceding accounting years and have a positive net worth, have also been delegated enhanced powers.

Board for Reconstruction of Public Sector Enterprises (BRPSE)

The Government set up the Board for Reconstruction of Public Sector Enterprises (BRPSE) in December, 2004 to advise the Government, inter alia, on the measures to restructure/revive both industrial and non-industrial CPSEs. The Board comprises a part time Chairman in the rank of Minister of State, three part-time Non-Official Members and three part-time Official Members including Secretary, Department of Expenditure, Secretary, Department of Disinvestment and Secretary, Department of Public Enterprises. In addition, Chairman, Public Enterprises Selection Board, Chairman, Standing Conference of Public Enterprises and Chairman, Oil and Natural Gas Corporation Limited are permanent invitees to the meetings of BRPSE. Secretaries to the Government in the Administrative Ministry/Department concerned with the CPSE under consideration by the Board are Special Invitees. There is a full-time Secretary for BRPSE in the level / rank of Additional Secretary to the Government of India. The Board is located in the Department of Public Enterprises (DPE). The DPE provides necessary secretarial assistance to the Board.

For the purposes of making reference to BRPSE, a company is considered sick if it has accumulated losses in any financial year equal to 50 per cent or more of its average net worth during 4 years immediately preceding such financial year and/or a company which is a sick company within the meaning of Sick Industrial Companies (Special Provisions) Act, 1985 (SICA). The concerned administrative Ministries/Departments are required to send proposals of their CPSEs identified as sick for consideration of BRPSE. Other loss making CPSEs may be considered by the Board either *suo moto* or upon reference by the administrative Ministry. If it is of the opinion that revival/restructuring is necessary for checking the incipient sickness (incurring loss for two consecutive years) and making the CPSE profitable, keeping the industry specific business environment in view. The Board is expected to make its recommendations within 2 months of the date of receipt of the complete proposal from the administrative Ministry/Department.

Corporate Social Responsibility in CPSEs

The Department of Public Enterprises (DPE), has recently issued a comprehensive "*Guidelines on Corporate Social Responsibility for Central Public Sector Enterprises*". Corporate Social Responsibility (CSR) is a company's Commitment to operate in an economically, socially and environmentally sustainable manner, while recognizing the interests of its stake holders. This commitment is beyond statutory requirements. CSR is, therefore, closely linked with the practice of Sustainable Development. CSR extends beyond philanthropic activities and reaches out to integration of social and business goals. Approach to CSR planning, on the other hand, implies a shift from an ad-hoc charity to a long-term sustainable approach. The long-term CSR Plan has to match with the long term Business Plan of the CPSE. This may be, furthermore, broken down into medium term and short term plans.

Permanent Machinery of Arbitration

The Permanent Machinery of Arbitration (PMA) was set up in the Department of Public Enterprises (DPE) in 1989 for resolving commercial disputes (except taxation and matters relating to Indian Railways) between CPSEs *inter-se* as well as between a CPSE and a Central Government Department/Ministry, Banks, Port Trusts expeditiously out of Court. The disputes are required to be referred first to Secretary, DPE, who forwards the cases to the Arbitrator for resolution of disputes. The Arbitrator of the PMA is a Joint Secretary and Legal Adviser in the Ministry of Law and is appointed by the Law Secretary. The Arbitration Act, 1996 or any other law is not applicable in the case of PMA. Award of the Arbitrator may, however, be challenged before the Law Secretary whose decision is final and binding upon the parties. The matter in dispute has to be presented/defended only by the representatives of the parties, and not by any lawyer or outsiders.

Automotive Industry

Automotive Industry globally is one of the largest Industries and is a key driver of economy owing to its deep forward and backward linkages with several key segments of industry, automotive industry has a strong multiplier effective of the economy. A sound transportation system plays a pivotal role in the country's rapid economic and industrial development. The well-developed India, automotive industry ably fulfils this catalytic role by producing a wide variety of vehicles such as passenger cars, light, medium and heavy commercial vehicles, multi-utility vehicles, scooters, motor-cycles, mopeds, three wheelers, etc.

Automobile Industry was delicensed in July 1991 with the announcement of the New Industrial Policy. The passenger car was however delicensed in 1993. No industrial licence is required for setting up any unit for manufacture of automobiles except in some special cases. The norms for foreign investment and import of technology have also been progressively liberalized over the years for vehicle manufacturers including passenger cars, in order to make this sector globally competitive. At present, 100 per cent Foreign Direct Investment (FDI) is permissible under automatic route in this sector including passenger car segment. With the gradual liberalization of the automobile sector since 1991, the number of manufacturing facilities in India has grown progressively. The automotive industry, comprising the automobile and the auto component sectors, has made rapid strides since delicensing and opening up of the sector to FDI in 1991. The automotive industry (including components and tyres) has already attained a turnover of ₹ 2,20,600 crore. The industry provides direct and indirect employment to 13.1 million people. The contribution of the automotive industry of GDP has risen from 2.77 per cent in 1992-

93 to 4.14 per cent in 2008-09. the industry is also making a contribution of 17 per cent to the kitty of indirect taxes of the Government. Today India is the world's second largest manufacturer of two wheelers and fifth largest manufacturer of commercial vehicles. It manufactures largest number of tractors in the world and is the 9th largest car manufacturer in the world.

Production

The Indian automobile sector, described as the sun rise sector, had been growing at a healthy double digit rate till 2006-07. However, it witnessed a downturn during the later half of 2007-08 and in 2008-09 due to global economic slowdown. To tide over the situation, the Government of India took immediate remedial action and announced three stimulus packages. As a result of this, the overall position has improved since July, 2009 onwards. In the year 2008-09 the industry witnessed a modest growth in production at 2.96 per cent over 2007-08. In the year 2009-10 (April 2009 to December, 2009), passenger vehicle segment, two-wheeler segment, three-wheeler segment and commercial vehicle segment have all recorded a growth of 24.55 per cent 19.70 per cent 16.04 per cent and 15.10 per cent respectively over the corresponding period last year (CLPY).

STEEL

India was the 3rd largest crude steel producing country in the world in 2009. The crude steel production in the country during 2009-10 (Provisional) was 64.88 million tonnes (mt) as compared to the 58.44 million tonnes mt in 2008-09, a growth of 11 per cent.

The production of Finished (Carbon) Steel during the period 2003-04 to 2008-09 is as under :

Year	Crude steel production in India (mt)
2004-05	43.44
2005-06	46.46
2006-07	50.82
2007-08	53.86
2008-09	58.44
2009-10 (Provisional)	64.88

Source : Joint Plant Committee (JPC).

Production For Sale of Total Finished Steel (Non-Alloy+Alloy) (mt)

(in million tonnes)

Item	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10 (Prov.)
Main Producers	15.82	16.41	17.61	18.02	17.22	17.9
% change *	2.9	3.7	7.3	2.3	-4.4	3.9
Majors and Other	31.04	34.81	40.04	43.33	46.22	47.56
% change*	11.0	12.1	15.0	8.2	6.7	2.9
Less: IPT/Own consumption	3.35	4.66	5.13	5.28	6.28	5.77
Total	43.51	46.56	52.52	56.07	57.16	59.69

Source : Joint Plant Committee (JPC); * over last year

Sponge Iron

The sponge Iron industry had been specially promoted so as to provide an alternative to steel melting scrap which was increasingly becoming scarce. Today, India is the largest producer of sponge iron in the world. The production of sponge iron during the period 2004-05 to 2009-10 (Provisional) is as under:

Year	Sponge Iron production in India (mt)
2004-05	12.54
2005-06	14.82
2006-07	18.35
2007-08	20.38
2008-09	21.09
2009-10 (Provisional)	20.74

Source : Joint Plant Committee (JPC)

Import and Exports

In India import and export of all items of iron and steel are freely allowed. Exports of high-grade iron ore, chrome ore and manganese ore are made through designated canalizing agencies subject to the ceiling imposed by the Government.

(i) Imports : Though the country's production of iron and steel is sufficient to meet the domestic demand, some quantity of steel is always needed to be imported specially those grades and qualities which are required in small quantities and therefore, do not justify setting up of production capacities. Additionally, a part of imports is also due to price considerations and in some cases to supplement domestic production. Typical items in the Indian import basket include hot rolled coils, cold rolled coils, semis and steel scrap. Import of total finished steel (non-alloy + alloy) during 2009-10 (provisional) was 7.29 mt compared to the 5.84 mt in 2008-09. Also, India has turned into a net importer of total finished steel since 2007-08.

(ii) Exports : Value addition in the Indian export basket has been a major trend with the export basket consisting primarily of hot rolled coils, cold rolled coils, colour coated sheets, GP/GC sheets. Pig iron is also being exported. Export of total finished steel (non-alloy + alloy) during 2009-10 (provisional) was 3.24 mt compared to the 4.44 mt in 2008-09.

Research and Development

Research and Development activity in iron and steel sector is carried out mainly by the iron and steel plants themselves, national laboratories, academic institutions, etc. and Research laboratories. There is a significant improvement in the area of iron and steel making processes, upgradation of raw material, product development, increase in productivity, reduction in energy consumption by in-house R and D activities. However, total R and D expenditure in iron and steel sector in India still remains relatively low at around 0.2 per cent of the total turnover of steel plants.

To encourage R&D activities in iron and steel sector, Ministry of Steel has constituted an Empowered Committee (EC) under the Chairmanship of Secretary (Steel) to provide financial assistance from Steel development Fund (SDF). The EC so far has approved 59 research projects. Of this, 26 research projects have been completed yielding benefits to the iron and steel industry in the country.

In order to further boost of R&D activities in the country, the Government of the India has started a new RandD Scheme with budgetary support of ₹ 118 crore during 11th Five Year Plan period.

Duty Exemption/remission scheme

Duty Exemption/Remission schemes enable duty free import of inputs required for export production. The Ministry of steel provides the technical inputs to DGFT for grant of advance authorisation and for fixation of standard input-output norms, which play an important role in boosting exports of iron and steel, ferro alloys and refractory industries.

Duty Entitlement Pass Book (DEPB) Scheme, under the Duty Remission category allows credit of import charges on input used in export products. The scheme has proved to be very attractive amongst the exporters and it plays a key role in encouraging exporters and it plays a key role in encouraging exports of iron, steel, ferro alloys and refractories.

Energy and environment management

National CDM Authority grants host country approval to 127 projects submitted by iron, steel, ferro alloys refractory and metallurgical coke plants. Ministry of Steel (Technical Wing) provides the technical input to the NCDMA. The projects once approved by the Executive Board at UNFCCC will reduce green house gas emission to considerable extent.

Indian Steel Industry in 2009-10

Helped to a significant extent by the well-designed back-to-back policy stimulus packages of the Government of India and a relatively stable economic foundation compared to many other nations, the Indian steel industry has successfully overcome the adverse effects of a global slowdown of 2008 as evident in its performance in 2009-10. Buoyed by the positive market sentiments, Indian steel entrepreneurs are focusing on giving form to their capacity expansion plans.

Item	Indian steel scene: 2009-10*	
Total Finished Steel	Qty (mt)	% change
Production for sale	59.69	4.4
Import	7.29	2.5
Export	3.24	-27.1
Consumption	56.48	7.9
Crude steel		
Production	64.87	11.02
Capacity Utilisation (%)	89	-

Source: Joint Plant Committee (JPC). * = provisional

Current Status

The following is a status report on the performance of Indian steel industry during April-June 2010, based on provisional data. It is to be noted that steel refers to total finished steel (i.e. non-alloy + alloy).

Total Finished Steel	Indian steel scene: April-June 2010*	
	Qty (mt)	% change
Production for sale	15.09	4.0
Import	2.65	74.9
Export	0.6	-15.1
Consumption	14.92	12.2

Source: Joint Plant Committee (JPC). * = provisional

FERTILIZERS

Agriculture which accounts for one fifth of GDP, provides sustenance to two-thirds of our population. Besides, it provides crucial backward and forward linkages to the rest of the economy. Successive five-year plans have laid stress on self-sufficiency and self-reliance in food grains production and concerted efforts in this direction have resulted in substantial increase in agriculture production and productivity. This is clear from the fact that from a very modest level of 52 million MT in 1951-52, food grain production rose to about 233.88 million MT in 2008-09. In India's success in agriculture sector, not only in terms of meeting total requirement of food grains but also generating exportable surpluses, the significant role played by chemical fertilizers is well recognized and established.

Keeping in view the vital role played by chemical fertilizers in the success of India's green revolution and consequent self-reliance in food-grain production, the Government of India has been consistently pursuing policies conducive to increased availability and consumption of fertilizers in the country. As a result, the annual consumption of fertilizers in nutrient terms (N.P and K.) has increased from 0.7 lakh MT in 1951-52 to 249.09 lakh MT 2008-09, while per hectare consumption of fertilizers, which was less than 1 Kg in 1951-52 has risen to the level of 128.60 Kg (estimated) in 2008-09. As of now, the country has achieved near self-sufficiency in production capacity of urea with the result that India could substantially manage its requirement of nitrogenous fertilizers through the indigenous industry. In case of phosphatic fertilizers, nearly 50 per cent of domestic requirement is met through indigenous production, Even for that, the raw materials and intermediates for are largely imported. As for potash (K) since there are no viable sources/reserves in the country, its entire requirement is met through imports.

Growth of Fertilizer Industry

The industry made a very humble beginning in 1906, when the first manufacturing unit of Single Super Phosphate (SSP) was set up in Ranipet near Chennai with an annual capacity of 6000 MT. The Fertilizer and Chemicals Travancore of India Ltd. (FACT) at Cochin in Kerala and the Fertilizers Corporation of India (FCI) in Sindri in Bihar (now Jharkhand) were the first large sized fertilizer plants set up in the forties and fifties with a view to establishing an industrial base to achieve self-sufficiency in food-grains. Subsequently, green revolution in the late sixties gave an impetus to the

growth of fertilizer industry in India and the seventies and eighties then witnessed a significant addition to the fertilizer production capacity.

The installed capacity as on 31.03.2009 has reached a level of 120.61 lakh MT of nitrogen of capacity of which the non functional capacity is estimated as 10.52 lakh MT and 56.59 lakh MT of phosphatic nutrient, making India the 3rd largest fertilizer producer in the world. The rapid build-up of fertilizer production capacity in the country has been achieved as a result of a favourable policy environment facilitating large investments in the public, co-operative and private sectors. Presently, there are 56 large size fertilizer plants in the country manufacturing a wide range of nitrogenous, phosphatic and complex fertilizers. Out of these, 30 (as on date 28 are functioning) units produce urea, 21 units produce DAP and complex fertilizers, 5 units produce low analysis straight nitrogenous fertilizers and the remaining 9 manufacture ammonium sulphate as byproduct. Besides, there are about 72 medium and small-scale units in operation producing SSP.

The consumption, indigenous production and imports of fertilizers in terms of fertilizer nutrients, (NPK) during the period 1998-99 to 2007-2008 are given below:

(lakh tonnes)

Year	Consumption	Production	Imports
1998-1999	167.98	136.21	31.45
1999-2000	180.69	142.89	40.75
2000-01	167.02	147.05	20.91
2001-02	175.60	146.28	23.99
2002-03	160.94	144.40	16.74
2003-04	167.98	142.76	20.18
2004-05	183.99	154.05	27.50
2005-06	203.40	155.75	52.53
2006-07	216.51	160.95	60.80
2007-08	225.70	147.06	77.56
2008-09	249.09	143.34	101.51
2009-10	N.A.	163.20	81.23

Provisional upto 31.12.2009

Fertilizer Subsidy

The increase in rate of subsidy on fertilizers combined with increase in consumption of fertilizers has led to a substantial increase in requirement of subsidy. In spite of increase in cost of fertilizers, the Government has completely kept the farmers insulated from this increase in cost and have increase the subsidy allocations to meet the consumption needs of the farmer at subsidizes level of prices. The details of fertilizer subsidy over the last few years are as below.

FERTILIZER SUBSIDY

(₹ in crore)

Years	Urea	Subsidy Released indigenous (PandK)	Imported (PandK)	Total (PandK)	Total subsidy disbursed	Liabilities Carryover to next year	Net incidence of subsidy
2002-03	7788	2488	737	3225	11013	-	-
2003-04	8509	2606	720	3326	11835	2002	-
2004-05	10986	3977	1165	5142	16128	3372	17498
2005-06	11749	4500	2050	6550	18299	5914	20841
2006-07	15354	6648	3950	10598	25952	8788	28826
2007-08	23204	10334	6800	17134	40338	5000	36550
2008-09	33901	32957	32598	65555	99456	17158	111614
2009-10*	25258	15447	16351	31798	57056	-	74214

Estimated*Public Sector Undertakings****The Fertilizer Corporation of India Limited (FCIL)**

Incorporated on 1 January, 1961, FCI was re-organized along with National Fertilizers Corporation Ltd. (NFC) with effect from 1.4.1978 into five companies namely, FCI, NFL, Hindustan Fertilizer Corporation Ltd. (HFC), Rashtriya Chemicals and Fertilizers Ltd. (RCF) and Projects and Development India Ltd. (PDIL). Following re-organisation, FCI comprised four units located at Sindri (Jharkhand), Gorakhpur (Uttar Pradesh), Ramagundam (Andhra Pradesh) and Telcher (Orissa), with a total annual capacity of 5.87 lakh MT of nitrogen besides an abandoned project at Korba (Chhattisgarh). As on 31.3.2009, FCI had an authorized share capital of ₹ 800 crore and paid up share capital of ₹ 750.92 crore. The accumulated losses as on 31.3.2009 were ₹ 9878.36 crore.

Hindustan Fertilizer Corporation Limited (HFCL)

The Hindustan Fertilizer Corporation Limited (HFCL) was incorporated on 14th March, 1978 as a result of the reorganization of the erstwhile Fertilizer Corporation of India Limited (FCIL), and NFL Group of Companies. The HFCL comprised Barauni unit (Bihar), Durgapur unit and Haldia Project (West Bengal) and Namrup Unit (Assam). The Namrup Unit was hived off with effect from 1.4.2002 to form a separate entity with the name of Brahmaputra Valley Fertilizer Corporation Ltd (BVFCL). As on 31st March 2009, HFC had an authorized capital of ₹ 1200 crore and a paid up capital of ₹ 686.54 crores.

Rashtriya Chemicals and Fertilisers Limited (RCF)

Rashtriya Chemicals and Fertilisers Limited (RCF) was incorporated as a separate company on 6th March 1978 as a result of reorganization of the erstwhile Fertilizer Corporation of India Limited. At the time of its formation, the company had only one operating unit at Trombay (near Mumbai) and two major projects under implementation viz.; Trombay IV and Trombay-V expansion. The gas based Thal-Vaishet fertilizer complex about 100 Kms from Trombay, was later implemented by RCF and it commenced commercial production on June 1, 1985. As on 31 March

2009, the company had an authorized share capital of ₹ 800 Crore and a subscribed and paid up capital of ₹ 551.69 crore.

National Fertilizers Limited (NFL)

National Fertilizers Limited (NFL) was, incorporated on 23 August 1974 for setting up two nitrogenous plants, at Bathinda (Punjab) and Panipat (Haryana) with LSHS as feestock, each having urea production capacity of 5.11 lakh MT per annum. Consequent upon the reorganization of the FCI, the Nangal Unit (including Nangal Expansion Project) of FCI was also transferred to NFL w.e.f. 1 April 1978.

Projects and Development India Limited (PDIL)

Projects and Development India Limited (PDIL) and erstwhile Division of the Fertilizers, Corporation of India (FCIL) was registered as a separate company in March, 1978. The company has its registered office at Noida, Uttar Pradesh. The authorized share capital of the company was ₹ 60 crore and paid up capital was ₹ 17.30 crore as on 31 March 2009.

The Fertilizers and Chemicals Travancore Limited (FACT)

Fertilizers And Chemicals Travancore Limited (FACT) was incorporated in 1943. In 1947 FACT started production of Ammonium Sulphate with an installed capacity of 50,000 MT per annum at Udyogamandal, near Cochin. In the year 1980, FACT became a PSU and towards the end of 1982, the Government of India became the major shareholder. From a modest beginning, FACT has grown and diversified into a multi-division multifunction Organization with basic interest in manufacture and marketing of fertilizers and petro-chemicals, engineering consultancy and design and in fabrication and erection of industrial equipments.

Madras Fertilizers Limited (MFL)

Madras Fertilizers Limited (MFL) was incorporated in December 1906 as a Joint Venture between GOI and AMOCO India Incorporation of USA (AMOCO) with GOI holding 51 per cent of the equity share capital in 1985, AMOCO disinvested their shares, which were purchased by GOI and NIOC in their respective proportions on 22 July 1985. The revised share holding pattern was: GOI 67.55 per cent and NIOC 32.45 per cent. The share holding pattern upto 11 May, 1997 was GOI 69.78 per cent and NIOC 30.22 per cent. On 12 May, 1997, MFL made its maiden Public Issue of 2,86,30,000 shares of face value of ₹ 10 at a premium of ₹ 5 per share. Of these, 2,58,09,710 shares were subscribed.

Brahmaputra Valley fertilizer Corporation Limited (BVFCL)

Brahmaputra Valley Fertilizer Corporation Limited (BVFCL) has two operating units at Namrup Assam. Its Corporate Office is also situated at Namrup. The other establishments of the company are Liaison Offices at NOIDA and Kolkata and Marketing Offices at Guwahati, Siliguri and Patna. The authorised share capital and paid up capital of the company as on 31.3.2009 were ₹ 510 crore and ₹ 355.83 crore respectively.

FCI Aravali Gypsum and Mineral India Limited (FAGMIL)

FCI Aravali Gypsum and Mineral India Limited was incorporated under the Companies Act 1956 as a Public Sector Undertaking on 14.2.2003 after being hived off the Jodhpur Mining Organization (JMO) of Fertilizers Corporation of India Limited. (FCIL). The authorized share capital of the Company was ₹ 10 crore and the paid up capital was ₹ 7,32,98,000 as on 31 March 2009.

CHEMICAL AND PETROCHEMICAL INDUSTRIES

Chemical Industry

The chemical industry, which includes basic chemicals and its products, petrochemicals, fertilizers, paints and varnishes, gases, soaps, perfumes, toiletries and pharmaceuticals is one of the most diversified of all industrial sector covering thousands of commercial products. It plays an important role in the overall development of Indian economy. It contributes about 3 per cent in the GDP of the country.

Chemical Sector-Production Trends

Chemical Industry is one of the oldest industries in India, which contributes significantly towards industrial and economic growth of the nation. It provides valuable chemicals for various end products such as textiles, paper, paints, varnishes, leather etc. which are required in almost all walks of life. The Indian Chemical Industry forms the backbone of the industrial and agricultural development of India and provides building blocks for downstream industries.

The Indian Chemical Industry comprises both small and large-scale units. The fiscal concessions granted to the small sector in mid-eighties led to establishment of large number of units in the Small Scale Industries (SSI) sector. Currently, the Indian Chemical Industry is in the midst of a major restructuring and consolidation phase. With the shift in emphasis on product innovation, brand building and environmental friendliness, this Industry is increasingly moving towards greater customer orientation. Even though India enjoys an abundant supply of basic raw materials, it will have to build upon technical services and marketing capabilities to face global competition and increase its share of exports.

As the Indian economy was a protected economy till the early nineties, very little large-scale RandD was undertaken by the Chemical industry to create intellectual property. The product patent regime has come in force w.e.f. January 2005. The units have to be more innovative with state-of-art R&D establishments. This will help in development of newer molecules. With a number of scientific institutions, the country's strength lies in its large pool of highly trained scientific manpower.

India produces a large number of fine and specialty chemicals, which have very specific uses and find wide usage as food additives, pigments, polymer additives and anti-oxidants in the rubber industry, etc.

In the Chemical Sector, 100 per cent FDI is permissible. Manufacture of most chemical products, *inter-alia* governing organic/ inorganic, dyestuffs and pesticides is delicensed. The entrepreneurs need to submit an Industrial Entrepreneurs' Memorandum (IEM) to the Department of Industrial Policy and Promotion provided no locational angle is applicable. Only the following items are covered in the compulsory licensing list because of their hazardous nature:

- Hydrocyanic acid and its derivatives
- Phosgene and its derivatives
- Isocyanates and di-isocyanates of hydrocarbons.

The Dyestuff sector is one of the important segments of the chemical industry in India, having forward and backward linkages with a variety of sectors like textiles, leather, paper, plastics, printing inks and foodstuffs. The textile industry accounts for

the largest consumption of dyestuffs at nearly 70 per cent. From being importers and distributors in the 1950s, it has now emerged as a very strong industry and a major foreign exchange earner. India has emerged as a global supplier of dyestuffs and dye intermediates, particularly for reactive, acid, vat and direct dyes. India accounts for approximately 7 per cent of the world production.

Chemical fertilizers and pesticides played an important role in the 'Green Revolution' during the 1960s and 1970s. Indian exports of agrochemicals have shown an impressive growth over the last five years. The key export destination markets are USA, U.K., France, Netherlands, Belgium, Spain, South Africa, Bangladesh, Malaysia and Singapore. India is one of the most dynamic generic pesticide manufacturers in the world with more than 60 technical grade pesticides being manufactured indigenously by 125 producers consisting of large and medium scale enterprises (including about 10 multinational companies) and more than 500 pesticide formulators spread over the country.

The actual production of major chemicals during the years 2003-04 to 2008-09 and up to December, 09 for the year 2009-10 is exhibited in Table given below:

Production of Selected Major Chemicals

(Figures in '000/MT)

Years	Alkali Chemicals	Other Inorganic Chemicals	Organic Chemicals	Pesticides and Insecticides	Dyes and Dyestuff	Total Major Chemicals	Annual Growth in Major Chemicals (%)
2003-04	5070	441	1474	83	26	7096	6.79
2004-05	5272	506	1506	94	28	7408	4.40
2005-06	5475	544	1545	82	30	7676	3.62
2006-07	5269	602	1545	85	33	7534	-1.85
2007-08	5443	609	1552	83	44	7731	2.61
2008-09	5442	513	1254	85	32	7326	-5.24
April- Dec.,09*	4133	382	920	58	30	5523	-0.88
CARG (%)							
08-09/03-04	1.43	3.07	-3.18	0.00	4.24	0.64	-

*Estimated

CARG: Compound Annual rate of Growth

Product wise details may be seen at Annexure-I and Group-wise at Annexure-II.

PUBLIC SECTOR UNDERTAKINGS

Hindustan Organic Chemicals Limited

Hindustan Organic Chemicals Limited (HOCL) was incorporated in December, 1960 for setting up manufacturing capacities for chemicals/ intermediates which are required for production of dyes, dye-intermediates, rubber chemicals, pesticides, Drugs and pharmaceuticals, laminates etc. It was expected that indigenous

manufacture of these chemicals and intermediates would give impetus to downstream industry resulting in setting up of chemical units and achieving self-sufficiency for the country in this area. The objective of setting up HOCL has been achieved as over the years, more than 500 units based on HOCL's products have been set up all over the country which have not only helped in achieving self sufficiency but have also entered the international market by exporting chemicals, dyes and drugs over the last many years.

The products manufactures by HOCL include phenol, acetone, formaldehyde, nitrobenzene, aniline, nitro toluene, sulphuric acid/oleum, acetanilide and Hydrogen Peroxide. The raw materials used by HOCL are benzene, toluene, LPG, methoanol, naphtha and Sulphur, most of which come from Petroleum Refineries.

HOCL has two units at Rasayani (Maharashtra) and Kochi (Kerala). It also has a subsidiary company, M/s Hindustan, fluorocarbons Limited located at Rudraram (Andhra Pradesh) for manufacture of poly-tetra-fluoro-ethylene (PTFE), a high-technology engineering plastic.

As against a total installed capacity of 4,02,725 MT, (Rasayani Unit, 2,39,110 MT and Kochi Unit 1,63,615 MT) the operating capacity of Rasayani Unit is 1,42,000 MT, which is mainly because of non operating installed capacity of Aniline Plant I, Nitrobenzene Plant I, Mono-chlorobenzene and Nitro-chlorobenzene Plant I, Mono-chlorobenzene Plant I, Monochlorobenzene and Nitro-chlorobenzene plants. As part of the physical restructuring of the Rasayani unit, Caustic Soda Chlorine plant production has been resumed since 15th September, 2008 thereby increasing the operating capacity to 1,78,000 MT. The other product line like Monochlorobenzene and Nitro-chlorobenzene would be considered for start up as and when this product line becomes financially viable.

The Kochi Unit has been achieving more than 100 per cent capacity utilization due to the measures taken. HOCL management has already undertaken the implementation of the same. HFL is implementing the Clean Development Mechanism (CDM) Project to reduce greenhouse gas emissions through destruction of HFC-23 gas in a proposed thermal oxidation system. HFC - 23 is generated as a waste gas during the process of manufacture of HCFC 22 for which HFL has installed capacity of 1265 MTPA. The project is being implemented by SRF Ltd in technological collaboration with SGL Carbon on a turnkey basis. The project has been registered with United Nations Framework Convention on Climate Change (UNFCCC). Destruction of stored HFC-23 through thermal oxidation process will generate CERs. The share of HFL in the CERs will generate annual revenue of about ₹ 19.77 crore per annum over the next five years.

HINDUSTAN INSECTICIDES LIMITED

Hindustan Insecticides Limited (HIL) was incorporated in 1954 and set up its factory in Delhi for manufacturing DDT to meet the demand of National Malaria Eradication Programme (NMEP) presently known as National Vector Borne Disease Control Programme (NVBDCP) launched by Govt. of India. This plant went into production in April 1955. In 1957, the company set up their second factory at Udyogamandal, near Cochin for the manufacture of DDT. The company set up a plant at Rasayani, Maharashtra in 1977 for the manufacture of Malathion, an insecticide used in public health. Another DDT plant was set up at Rasayani in 1983. DDT is even today the most effective tool to fight dreaded diseases like Malaria, Dengue, Kala Azar, Japanese

Encephalitis etc. The company has contributed immensely in keeping these diseases under check in India. HIL is today the largest producer of DDT in the world. The only other producer of DDT is China.

With a view to make quality pesticides available to farmers as part of the Green Revolution, HIL has put up manufacturing facilities for various agro pesticides at Udyogamandal, Kerala and Rasayani, Maharashtra. The company today manufactures technicals such as Endosulfan, Dicofol, Malathion Butachlor, DDVP, Monocrotophos, Mancozeb etc. and around 27 agro formulations at its plants at Udyog amandal (Kerala), Rasayani (Maharashtra) and Bathinda (Punjab).

The company has a well-equipped Central RandD Complex at Udyog Vihar, Gurgaon, Haryana along with an experimental farm. In an effort to achieve international standard for its products and systems, all the Units of the Company took an initiative and successfully received ISO 9001-2000 certificate. Rasayani Unit has also been accredited with ISO:14000 and ISO 18001-2007.

The company also has a marketing tie up with M/s Rashtriya Chemicals and Fertilizers Limited and M/s. Brahmaputra Valley Fertilizer Corporation Limited for increasing sales turnover.

The company has initiated export of DDT 75 per cent and succeeded in getting orders from Government of Mozambique, Gambia, Eritrea, and Namibia competing in the global market. The company is also actively pursuing procurement of orders in other countries, mainly in sub-Saharan Africa, which are more prone to malaria. In addition to DDT 75 per cent WDP, the company is also exporting Malathion Technical, Endosulfan Technical and Formulation to various countries in Europe, Africa and Latin America.

HIL has been continuously improving its turnover and has posted profit for 4 years in succession. In 2008-09, the Company achieved an all time record turnover of ₹ 215.35 crore and recorded a gross profit of ₹ 7.61 crore before providing for depreciation and interest. The net profit for 2008-09 after providing for depreciation and interest was at ₹ 2.71 crore.

PETRO CHEMICAL SECTOR

National Policy on Petrochemicals

The Government approved the National Policy on Petrochemicals on 12 April 2007. The National Policy on Petrochemicals aims to:

- a) Increase investments in the sector (both upstream and downstream) and capture a slice of the resurgent Asian demand in polymers and downstream processing through additions in capacity and production by ensuring availability of raw materials at internationally competitive prices, creating quality infrastructure and other facilitation to ensure value addition and increase exports;
- b) Increase the domestic demand and per capita consumption of plastics and synthetic fibres from the present level of 4 Kgs and 1.6 Kgs, increase the competitiveness, polymer absorption capacity and value addition in the domestic downstream plastic processing industry through modernization, research and development measure and freeing it from structural constraints;

- c) Facilitate investment in the emerging areas of petrochemicals;
- d) Achieve environmentally sustainable growth in the petrochemical sector through innovative methods of plastic waste management, recycling and development of bio-photogradable polymers and plastics; and
- e) Promote Research and Development in Petrochemicals and promote Human Resource Development.

The progress made so far in respect of the National Policy on Petrochemicals is as follows:-

- a) A Standing Committee on Petrochemical Feedstock has been constituted.
- b) Plastic Development Council under the IDR Act, 1951 has been constituted.
- c) Inter-Ministerial Expert Committee on Development of Plastics in Thrust Areas has been constituted.
- d) Feasibility studies on setting up of Centres of Excellence in the field of petrochemical, capacity building of Urban Local Bodies, extension of support for introduction of suitable course curricula for downstream plastic processing sector for development of low end skills, promotion of recycling Technology for post consumer plastic waste, setting up of dedicated Plastic Parks to promote a cluster approach in the areas of development of plastic applications and plastic recycling, Testing Centres as Certifying Agency for testing plastic products and raw materials augmentation, fixation of standards for plastic products, Schemes of National Awards for Technology Innovation, Petrochemical Research and Development Fund (including downstream plastic processing and feasibility studies on feedstock, alternate feedback for petrochemicals industries etc. are being carried out, which will enable the Department of Chemicals and Petrochemicals to formulate necessary schemes etc. Schemes on the following are being considered to be formulated for implementation, as per provisions of National Policy for Petrochemicals during 2009-10.
 - National Awards for technology innovations in petrochemicals and downstream plastic processing industry.
 - Setting up of dedicated Plastic Parks to promote a cluster approach in the areas of development of plastic applications and plastic recycling.
 - Setting up of Centre of Excellence in the field of updating products for new uses, innovative product technology and product design changes, improvements in the production process to make it more efficient, recycling process technology, innovative collective, segregation, cleaning and development of recycled products, development of biopolymers and biodegradable polymers etc.
 - Promoting the petrochemical sector by way of supporting conferences, workshops seminars, meetings etc.
- iii) The proposals/schemes are being considered as per the guidelines for promoting projects under PPP mode.

Production Trends in Petrochemical Sector

The petrochemical industry mainly comprises synthetic fibres, polymers, elastomers,

synthetic detergents intermediates and performance plastics. The main sources of feedstock and fuel for petrochemicals are natural gas and naphtha. Today, petrochemical products permeate the entire spectrum of daily use item and cover almost every sphere of life, ranging from clothing, housing, construction, furniture, automobiles, household items, toys, agriculture, horticulture, irrigation, packaging to medical appliances.

There are three naphtha based and equal number of gas based cracker complexes in the country with a combined ethylene annual capacity of 2.9 million MT. Besides, there are four aromatic complexes also with a combined Xylene capacity of 2.9 million MT. The actual production of major petrochemicals during the years 2003-04 to 2008-09 and up to December 09 for the year 2009-10 is exhibited in Table given below.

Table: Production of Selected Major Petro Chemicals

(Figures in '000/MT)

Years	Synth. Fibres	Polymers	Elastomers	Synthetic Detergent Intermed.	Perfor- mance Plastics	Total Major Petro-chemicals	Annual Growth in Major Petro-chemicals (%)
2003-04	1868	4499	87	454	99	7007	6.91
2004-05	1875	4776	97	488	113	7349	4.88
2005-06	1906	4768	110	556	127	7467	1.61
2006-07	2250	5183	102	556	133	8224	10.14
2007-08	2524	5304	105	585	157	8675	5.48
2008-09	2343	5060	96	552	141	8193	-5.56
April-Dec.,09	1948	3549	79	461	129	6166	0.76
CARG (%)							
08-09/03-04	4.64	2.38	1.99	3.99	7.33	3.18	

CARG: Compound Annual Rate of Growth

Product-wise details may be seen at **Annexure-III** and Group-wise at **Annexure IV**.

- 14 The production of polymers accounted for about 62 per cent of the total production of major petrochemicals during 2008-09. The domestic capacity of polymers was 5.72 million MT during 2008-09. With 88.5 per cent capacity utilization, production of polymers declined annually @ 16 per cent over a period of last five years (2008-09/2003-04) whereas imports registered an increase of 22.28 per cent during the corresponding period.
- 15 The domestic production capacity of synthetic fibres was 3.49 million MT during the year 2008-09. With 67 per cent capacity utilization, production of synthetic fibres at the level of 2.34 million MT was achieved. The exports of synthetic fibres registered an impressive annual growth at 11.13 per cent during the period 2003-09 as against decline in imports at (-)14.99 per cent during the corresponding period. Over the years, synthetic fibres have supplemented the natural fibre i.e. cotton.

AUTONOMOUS INSTITUTIONS

Central Institute of Plastics Engineering and Technology (CIPET)

Central Institute of Plastics Engineering and Technology (CIPET) established in 1968 is an autonomous institute, functioning under the aegis of Department of Chemicals and Petrochemicals, with its Corporate Office at Chennai. The institute has 15 Centres across the country located at Ahmedabad, Amritsar, Aurangabad, Bhopal, Bhubaneswar, Chennai, Guwahati, Haldia, Hajipur, Hyderabad, Jaipur, Lucknow, Mysore, Panipat and Imphal.

CIPET's prime objectives include training of manpower in different disciplines of Plastics Engineering and Technology and provision of technical support/constancy services to the plastics and allied industries on various technological aspects. CIPET has been accredited with ISO 17025 by National Accreditation Board for Testing and Calibration Laboratories (NABL)

The institute has well-developed facilities in the areas of plastic mould and product design including CAD/CAM/CAE, tooling, processing and testing of plastics. Besides the regular courses, the institute offers highly specialized and customized training in the field of plastics engineering and technology to update and improve the skills of the technical manpower in plastics and its allied industries. The institute also offers technical services in the areas of product design and mould design including CAD/CAM/CAE, fabrication of moulds, tooling, quality control and testing, application development, consultancy and advisory services to the plastics and its allied industries.

Institute of Pesticide Formulation Technology (IPFT)

IPFT located at Gurgaon, Haryana, is a non-profit making organization, registered under the Societies Registration Act in May 1991, under the Department of Chemicals and Petrochemicals, Ministry of Chemicals and Fertilizers, Government of India. It has completed 18 years of operation. The main objective of the Institute of Pesticide Formulation Technology as given in the Memorandum of Association of the Society is development and production of the state-of-the-art user and environment friendly pesticide formulation technology and promotion of efficient application technologies suiting the existing requirements of the newer formulations. IPFT has established a healthy rapport with the pesticide industry and has been able to successfully transfer technology for safer, efficient and environment friendly formulations. IPFT consists of three major divisions and a Pilot Plant. The Institute carries out both in-house and external projects.

Objectives of the Institute

The main objectives of the Institute of Pesticide Formulation Technology as given in the memorandum of Association of the Society are:

- (i) Development and production of state-of-the-art user and environment friendly pesticide formulation technology.
- (ii) Promotion of efficient application technologies suiting the existing requirements of the newer formulations.
- (iii) Information dissemination of safe manufacturing practices, quality assurances, raw material specification and sources.
- (iv) Analytical and consultancy services.

- (v) Fostering the improvement in the qualification and usefulness of pesticide scientists working in the agrochemical area.
- (vi) Continuing education through specialized training for pesticide personnel.

PHARMACEUTICAL SECTOR

The Indian pharmaceuticals industry has grown from a mere ₹ 1,500 crore turnover in 1980 to approximately ₹ 1,00,611 crore in 2009-10 (upto Sept. 09). The country now ranks 3rd in terms of volume of production (10 per cent of global share) and 14th largest by value. One reason for lower value share is the lower cost of drugs in India ranging from 5 per cent to 50 per cent less as compared to developed countries. Indian pharma industry growth has been propelled by exports which have grown from ₹ 6,256 crore in 1998-99 to ₹ 39,821 crore in 2008-09. The Domestic pharma sector has been expanding and has crossed ₹ 55,000 crore in 2008-09 from ₹ 32,000 crore in 2003-04. Indian exports are destined to various countries around the globe including highly regulated markets of USA, Europe, Japan and Australia.

PHARMACEUTICAL POLICY

The Department has been exercising Drug Price Control on the basis of criteria mentioned in 'Modifications in Drug Policy, 1986 announced in September, 1994, which is based on production data of 1990.

The Government announced the 'Pharmaceutical Policy 2002' in February 2002. However, a public interest litigation filed in the High Court of Karnataka at Bangalore resulted in an Order dated 13.11.02, which stopped the Government from implementing the price control regime of the Pharmaceutical Policy 2002. This Department filed a Special Leave Petition (SLP) before the Supreme Court of India against the (Order of the Karnataka High Court. The Supreme Court vide its order dated 10.3.2003 directed the Government to consider and formulate appropriate criteria for ensuring essential and life saving drugs not to fall out of price control.

Accordingly, the draft National Pharmaceutical Policy was prepared by this Department after extensive discussions with various stakeholders, and in line with the National Common Minimum Programme (NCMP). This Policy was submitted to the Cabinet for its approval. The Cabinet considered the Policy in its meeting held on 10th January 2007.

Following the formations of the new Government, the Department with the approval of the Minister of Chemicals and Fertilizers recommended continuation of Group of Ministers. The GoM has been accordingly constituted with the Ministers of the notified Departments in the earlier GoM. The new GoMs are yet to give its recommendation of the draft of National Pharmaceuticals Policy 2006.

INDIAN DRUGS AND PHARMACEUTICALS LIMITED (IDPL)

Indian Drugs and Pharmaceuticals Limited (IDPL) was incorporated on the 5th April, 1961 with the primary objective of creating self sufficiency in essential life saving drugs and medicines. The company has presently three manufacturing plants, one each at Rishikesh (Uttarkhand), Hyderabad (Andhra Pradesh) and Gurgaon (Haryana) IDPL has two wholly owned subsidiaries, namely, IDPL (Tamil Nadu) Ltd., Chennai (Tamil Nadu) and Bihar Drugs and Organic Chemicals Ltd. at Muzaffarpur (Bihar). In addition, IDPL has two Joint sector undertakings, promoted in Collaboration with the respective State Governments. These are Rajasthan Drugs

and Pharmaceuticals Ltd. (RDPL), Jaipur, and Orissa Drugs and Chemicals Ltd. (ODCL), Bhubaneswar. However, the Government has decided to de-link RDPL from IDPL and the process of delinking is underway.

IDPL was formally declared sick by the Board for Industrial and Financial Reconstruction (BIFR) on the 12th August, 1992. A revival package for the company was formulated and approved by BIFR on the 10th February, 1994. However, after taking into account the performance of the company which fell short of the targets, the BIFR on 23.1.1996 treated the sanctioned package as failure.

BIFR in its meeting held on 4, 12, 2003 confirmed its *prima-facie* opinion about winding up of IDPL in terms of Section 20 (1) of the Sick Industrial Companies (Special Provisions) Act, 1985.

Department of Chemicals and Petrochemicals filed an appeal against the order of BIFR in Appellate Authority for Industrial and Financial Reconstruction (AAIFR) on 10.2.2004. Hon'ble AAIFR at its hearing on 13.9.2005 set aside the impugned order of BIFR dated 4.12.2003 and remanded the matter back to BIFR for taking further action for rehabilitation of IDPL.

An Expert Committee was appointed in September, 2004, to study the techno-financial feasibility of rehabilitating IDPL. A technical audit of various plants of IDPL was also assigned to National Institute of Pharmaceutical Education and Research (NIPER). NIPER in its report submitted to the Department on 31 August 2005, recommended revival of all plants of IDPL and its subsidiaries in phases for production of existing and new products. IDBI supported the recommendations for revival of IDPL subject to certain conditions.

BENGAL CHEMICALS AND PHARMACEUTICALS LIMITED (BCPL)

BCPL was a sick company in the private sector in the name and style of Bengal Chemicals and Pharmaceuticals Works. It was nationalized on 15th December, 1960. A new public sector company in the name and style of Bengal Chemicals and Pharmaceuticals Limited (BCPL) was incorporated on the 17th March, 1961.

The company has four manufacturing units one each at Maniktala at Kolkata, Panihati at North 24 Parganas (West Bengal), one at Mumbai (Maharashtra) and at Kanpur (UP). The company manufactures and markets a wide a range of industrial chemicals, a large number of drugs and Pharmaceuticals besides cosmetics and home products. In the home products, the well known products include Cantharidine Hair Oil and Lamp Brand Phenol.

The company was formally declared sick by the Board for Industrial and Financial Reconstruction (BIFR) on the 14th January, 1993. A revival package was approved by the BIFR on the 4th April, 1995.

The Package was reviewed by BIFR from time to time. As a result, BIFR sanctioned a Modified revised Rehabilitation Scheme on 14.1.2004 for the revival of BCPL. This envisages a number of reliefs and concessions from the Government and other agencies.

The Modified Revised Rehabilitation. Scheme sanctioned by BIFR was further modified by the Company keeping in view its requirements for modernization of plants and machinery and placed before BRPSE for its recommendations.

Out of Cash infusion of ₹ 207.19 crores, ₹ 117.10 crores has since been released to BCPL and an interest free loan of ₹ 90.00 crores would be provided during 11th

Five Year Plan. Of this, ₹ 20.00 crores has been released in 2007-08 and ₹ 20.00 crores has been released in 2008-09. Parliament has approved writing off a GOI loans and interest of ₹ 233.41 crores. The company has appointed a Consultant for undertaking the work of upgradation and modernization of plant and machinery including compliance with Schedule 'M', WHO GMP standard. The work has since commenced at Maniktala, Panihati and Kanpur. It will take 13-24 months to complete the work. Impact of up gradation/modernization work will be visible in 2009-10. The company has entered into MoU with the Government during the year 2009-10

MINERAL

Ministry of Mines is responsible for survey and exploration of all minerals, other than natural gases, petroleum and atomic minerals, for mining and metallurgy of non-ferrous metals like aluminium, copper, zinc, lead, gold, nickel etc. and for administration of Mines and Minerals (Development and Regulation) Act, 1957 in respect of all mines and minerals other than coal, natural gas and petroleum.

Geological Context

Geologically India is divided into-

- the Indian Peninsula (shield) comprising 1.9 million sq km
- the Indo-Gangetic Alluvial plains comprising 0.5 million sq km
- The Extra - Peninsula (Himalaya) comprising 0.7 million sq km.

The Indian Peninsula covers the area south of the Vindhya, and the region is a plateau formed by the survival of the harder rocks, resistant to weathering. The region is made of stable and strong rock formations. The stratigraphic units are the Archaean Rocks (Dharwar and post-Dharwar), the Purana Group of Proterozoic rocks (Cuddapah and Vindhyan systems) the Gondwana sequence of Paleozoic and Mesozoic rocks and the Deccan Traps of the Mesozoic-Cenozoic era. Archaean rocks occupy two-thirds of the Peninsula spread over Tamil Nadu, Kerala, Karnataka, Andhra Pradesh, Orissa, Chattisgarh and Jharkhand and in a narrow tract extending from northern Gujarat into Rajasthan, forming some part of the Aravalli mountain range, as well in the Shillong plateau. Archaean rocks are the store house of mineral wealth, and except for coal, oil, gas and a few other mineral deposits, all our mineral wealth are in the Archaean areas.

The Cuddapah System of Purana rocks mainly comprise quartzite, limestone and slate and the Vindhyan system mainly comprises sandstones and shales with limestones with diamondiferous conglomerates. The Gondwana sequence of massive sedimentary rocks in linear tracts along Narmada-Son-Damodar alignment, along Mahanadi and along Godavari (and other outcrops) holds much of the coal reserves of the country. The offshore regions of some of these rivers are storehouses of gas and oil. The Deccan Trap consisting of basaltic flows through long and narrow fissures and at places eruptive volcanoes resulted in formation of lava spread over some 15 lakh sq km, mainly in Gujarat (Kachchh), Madhya Pradesh, Maharashtra, Karnataka and Andhra Pradesh. The lava sheets have a thickness of nearly 2000 m in the western Ghats. The Trap rocks are good for building stones, road metal etc., though weathering of high grade basalts result in lateritic deposits at many places.

The Indo Gangetic plains stretching from Sindh (Pakistan) and Punjab in the west to Bengal and Assam in the east consist of alluvium of Recent (Quaternary)

origin with a thickness of 1500 - 6000 m lying over older formations. Because they were created during uplift of the Himalaya and that the Himalaya is actively being eroded by many energetic rivers, this area is of geological interest from point of view of seismicity, its hydrology and natural hazards.

The Extra Peninsula region comprises the mountain chains of Baluchistan (Pakistan) to the Himalaya to Arakan Yoma (Myanmar). Being of recent origin and tectonically active the area is unstable, and barring a few areas of older rocks, usually consists of marine sedimentary rocks of the Cambrian to Cretaceous times in the inner areas. The sediments of the outer Himalaya (Shivaliks) being freshwater sediments are of geological importance because the Tertiary rocks of freshwater sedimentary origin may contain reserves of petroleum, seeing that similar rocks of Assam, Gujarat, Cambay and off shore areas have yielded results.

Mineral Legislation

India is richly endowed with many minerals. Under the Constitution, mineral rights and the administration of mining laws are vested in the respective State governments. The Central Government, however, regulates the development of mines and minerals under the Mines and Minerals (Development and Regulation) Act, 1957 and the rules framed thereunder. The MMDR Act 1957 came into force on 1.6.1958 and a number of amendments have been carried out in 1972, 1986, 1994 and 1999. This statute empowers the Central Government to formulate rules for.

The grant, renewal, etc. of reconnaissance permits, prospecting licences and mining leases for major minerals viz. Mineral Concession Rules, 1960, framed under Section 13 of MMDR Act 1957.

The conservation and development of minerals, (viz. Mineral Conservation and Development Rules, 1988 framed under the Section 18 of the MMDR Act. 1957 for major minerals. These Rules are not applicable to atomic, fuel and minor minerals. Powers are vested under Section 15 of the above said Act, to the respective state Governments too frame Minor Mineral Concession Rules. And accordingly all State Governments and some Union Territories have framed their own Rules.

The Granite Conservation and Development Rules, 1999 and Marble Development and Conservation Rules 2002 are also framed under Section of 18 of the MMDR Act, 1957 for conservation and systematic development of granite and marble resources in the country, respectively.

Important Features of National Mineral Policy, 2008

As a sequel to the recommendations of the Hoda Committee which was constituted by the Planning Commission to review the National Mineral Policy, a New National Mineral Policy, 2008 was approved by the Government. The policy advocates:-

- (i) use of state-of-the-art technology for exploration;
- (ii) zero waste mining;
- (iii) development of capital market structures to attract risk investment into survey and prospecting;
- (iv) Transparency in allocation of concessions;
- (v) auction of ore bodies prospected at public expense
- (vi) Independent Mining Administrative Tribunal;
- (vii) a framework of sustainable development to take care of biodiversity issues etc.

A draft Bill to replace the existing MMDR Act is under consideration of the Government and consultation process with Stakeholders including States Government and Industry is under way.

MINERAL RESOURCES IN INDIA

The classification of reserves/resources of various minerals based on **United Nations Framework Classification (UNFC)** as on 1.4.2005 has been updated. The UNFC consists of a three dimensional system with the 3 axes :

- Economic Viability
- Feasibility Assessment and
- Geological Assessment

UNFC is a three-digit code based system, wherein the economic viability axis represent the first digit, the feasibility axis the second digit and the geologic axis represent the third digit. Each of these three axis have further codes in decreasing order. The **economic viability** have three codes i.e. 1 (Economic), 2 (Potentially economic) and 3 (Intrinsically economic); the **feasibility assessment** have three codes i.e. 1 (Feasibility study and mining report), 2 (Pre-feasibility study) and 3 (Geological study) and the **geological assessment** have four codes. i.e. 1 (Detailed exploration), 2 (General exploration), 3 (Prospecting) and 4 (Reconnaissance). Thus the highest category and resources under UNFC system will have the code (111) and lowest category the code (334). The various terms used in this classification are as follows.

Total Mineral Resources: Reserve plus Remaining Resource comprise the Total Mineral Resource.

A. Mineral Reserves: Economically mineable part of Measured and/or Indicated mineral resource

- i) Proved Mineral Reserves (111) and
- ii) Probable Mineral Reserves (121) and (122)

B. Mineral Resources: It is the balance of the Total Mineral Resources that have not been identified as a Mineral Reserve

- i) Measured Mineral Resources - (331)
- ii) Indicated Mineral Resources - (332)
- iii) Inferred Mineral Resources - (333)
- iv) Reconnaissance Mineral Resources - (334)
- v) Prefeasibility Mineral Resources - (221) and (222)
- vi) Feasibility Mineral Resources - (211)

The principal minerals found in the country along with their estimated reserves/resources are given below:

BAUXITE

The Total Resources of Bauxite as per United Nations Framework Classification (UNFC) in the country are placed at about 3,290 million tonnes as on 1.4.2005. These resources include 899 million tonnes of Reserves and 2,391 million tonnes of Remaining resources, Orissa, Andhra Pradesh, Gujarat, Chhattisgarh, Madhya Pradesh, Jharkhand and Maharashtra are the principal States where bauxite deposits are located. Major deposits are concentrated in the East Coast Bauxite deposits of Orissa and Andhra Pradesh.

CHROMITE

The total resources of Chromite in the country as per UNFC System as on 1.4.2005 are estimated at 213 million tonnes, comprising 66 million tonnes reserves (31 per cent) and 147 million tonnes of remaining resources (69 per cent). In India 95 per cent resources are located in Orissa, mostly in the Sukinda valley in Cuttack and Jaipur districts and the remaining 5 per cent resources are distributed in Manipur and Karnataka and meagre quantities in the states of Jharkhand, Maharashtra, Tamil Nadu and Andhra Pradesh.

COPPER

The total resources of copper ore as on 1 April 2005 as per UNFC system are placed at 1.39 billion tonnes with a metal content of 11,418 thousand tonnes. Of these 369.49 million tonnes with a total metal content of 4383.97 thousand tonnes fall under Reserves while balance 1.02 billion tonnes with a metal content of 7033.75 thousand tonnes are 'Remaining resources'. Rajasthan is credited with the largest resources of copper ore at 668.5 million tonnes with a metal content of 3982 thousand tonnes followed by Madhya Pradesh and Jharkhand. Copper resources are also established in Andhra Pradesh, Gujarat, Haryana, Karnataka, Maharashtra, Meghalaya, Orissa, Sikkim, Tamil Nadu, Uttarakhand and West Bengal.

GOLD

There are three important gold fields in the country, namely, Kolar Gold Field, Kolar district and Hutti Gold Field in Raichur district (both in Karnataka) and Ramgiri Gold Field in Anantpur district (Andhra Pradesh). As per UNFC as on 1.4.2005 the total resources of gold ore (primary) in the country were estimated at 390.29 million tonnes with a metal content of 490.81 tonnes. Out of these, 19.25 million tonnes with a metal content of 85.12 tonnes. Out of these, 19.25 million tonnes with a metal content of 85.12 tonnes were placed under reserves category and the remaining 371.03 million tonnes with a metal content of 405.69 tonnes under resources category. The resources include placer-type gold ore in Kerala estimated at 26.12 million tonnes containing 5.86 tonnes gold metal. Largest resources of gold ore (primary) are located in Bihar followed by Karnataka, Rajasthan, West Bengal, Andhra Pradesh Madhya Pradesh, etc. While in terms of metal content, Karnataka remained on the top followed by Rajasthan, West Bengal, Bihar and Andhra Pradesh.

IRON ORE

Haematite and Magnetite are the most important iron ores in India. About 60 per cent haematite ore deposits are found in the Eastern sector and about 87 per cent magnetite deposits occur in Southern sector, specially in Karnataka. The total resources of iron ore as per UNFC are placed at 25,249 million tonnes as on 1.4.2005. Out of these, the iron ore (haemetite) resources are placed at 14,630 million tonnes of which 13,916 million tonnes (95 per cent) resources are distributed mainly in Orissa, Jharkhand, Chhattisgarh, Karnataka and Goa. The resources of very high grade ore are limited and are restricted mainly in Bailadila sector of Chhattisgarh and to a lesser extent in Bellary-Hospet area of Karnataka and Barajamda sector in Jharkhand and Orissa. Iron ore (magnetite) resources are placed at 10,619 million tonnes of which only 59 million tonnes constitute reserves located mainly in Goa, Rajasthan and Jharkhand. The remaining 10,560 million tonnes (99 per cent), magnetite resources are under remaining resources category mainly in Karnataka (74 per cent) and Andhra Pradesh (14 per cent). Other deposits are located in Goa, Rajasthan, Tamil Nadu, Kerala, Assam, Jharkhand, Nagaland, Meghalaya, Bihar, Maharashtra and Orissa.

LEAD-ZINC

Lead-Zinc resources are located in Rajasthan, Bihar, Maharashtra, Madhya Pradesh, Andhra Pradesh, Gujarat, Uttarakhand, West Bengal, Orissa, Sikkim, Tamil Nadu and Meghalaya. The total resources of lead and zinc ores as on 1.4.2005 as per UNFC are estimated at 522.58 million tonnes with a metal content of 7207 thousand tonnes of lead metal and 24260 thousand tonnes of zinc metal. Of these, 125.75 million tonnes with a metal content of 2591 thousand tonnes of lead metal and 11093 thousand tonnes of zinc metal fall under 'Reserves' while balance 396.83 million tonnes are with a metal content of 4617 thousand tonnes lead metal and 13167 thousand tonnes of zinc metal classified as 'Remaining resources'.

MANGANESE

The total resources of manganese ore as per UNFC system as on 1.4.2005 are placed at 379 million tonnes. Out of these, 138 million tonnes are categorized as reserves and the balance 240 million tonnes in the remaining resources. Main deposits fall in Orissa, followed by Karnataka, Madhya Pradesh, Maharashtra, Goa and Andhra Pradesh. Minor occurrences of manganese are in Rajasthan, Gujarat, Jharkhand and West Bengal.

NICKEL

The total resources of Nickel ore as per UNFC system as on 1.4.2005 have been estimated at 189 million tonnes. About 92 per cent resources i.e. 174.48 million tonnes are in Orissa and remaining 8 per cent are distributed in Jharkhand, Nagaland and Karnataka.

TUNGSTEN

The total resources of tungsten ore as per UNFC system as on 1.4.2005 have been estimated at 87.39 million tonnes with a WO_3 content of 142094 tonnes. All these resources are placed under 'Remaining Resources' category. The main deposits are Degana in Nagaur district, Rajasthan. It also occurs in Karnataka, Andhra Pradesh, Maharashtra, Haryana, West Bengal, Uttarakhand and West Bengal.

BARYTES

The total resources of barytes in India as on 1.4.2005 as per UNFC system are placed at 74 million tonnes of which about 46 per cent (34 million tonnes) are in 'Reserves' category and 54 per cent (40 million tonnes) are in 'Remaining Resources' category. The Mangampet deposit in Cuddapah district (Andhra Pradesh) is the single largest barytes deposit in the world. Andhra Pradesh alone accounted for more than 94 per cent country's resources. Minor occurrences of barytes are located in Rajasthan, West Bengal, Madhya Pradesh, Tamil Nadu, Himachal Pradesh, Maharashtra, Jharkhand, Uttarakhand, Karnataka and Haryana.

DIAMOND

Diamond deposits occur in three types of geological settings such as kimberlite pipes, conglomerate beds and alluvial gravels. The main diamond bearing areas in India are Panna belt in Madhya Pradesh, Munimadugu-Banganapalie conglomerate in Kurnool district, Wajrakarur kimberlite pipe in Anantapur district, the gravels of Krishna river basin in Andhra Pradesh and dimendiferous kimberlite in Raipur, Bastar and Raigarh districts in Chhattisgarh. Reserves have been estimated in Panna belt, Madhya Pradesh, Krishna Gravels in Andhra Pradesh and in Raipur district, Chhattisgarh. As per the UNFC system as on 1.4.2005 are placed at around 4582

thousand carats. Out of which about 1206 thousand carats are under reserve category and remaining 3376 thousand carats are under remaining resources category.

DOLOMITE

Total resources of dolomite as per UNFC system as on 1.4.2005 are placed at 7533 million tonnes, out of which Reserves are 985 million tonnes and the balance i.e. 6548 million tonnes are in the 'Remaining Resources'. Dolomite occurrences are widespread in almost all parts of the country. The major share of about 90 per cent resources is distributed in the states of Madhya Pradesh, Andhra Pradesh, Chhattisgarh, Orissa, Karnataka, Gujarat, Rajasthan and Maharashtra.

FIRECLAY

Fireclay occurs as a bedded deposit, mostly associated with coal measures of Gondwana and Tertiary periods. Important deposits are associated with Jharia and Raniganj coalfields in Jharkhand and West Bengal, Korba coalfield in Chhattisgarh and Neyveli Lignite field in Tamil Nadu. Notable occurrences of fireclay not associated with coal measures are known in the state of Gujarat, Jabalpur region of Madhya Pradesh and Belpahar-Sundergarh areas of Orissa. The total resources of fireclay as per UNFC system as on 1 April 2005, are about 705 million tonnes in India out of which 59 million tonnes are under reserve category and about 646 million tonnes are under remaining resources category. It is necessary to assess the fireclay reserves on priority basis, especially those associated with coal measures in the leasehold areas. The reserves of fireclay are substantial but resources of high grade (non-plastic) fireclay containing more than 37 per cent alumina are limited.

FLUORSPAR

The total resources of fluorite as per UNFC system as on 1.4.2005 were estimated at 20.16 million tonnes. Out of these, 9.21 million tonnes were placed under 'Reserves' category and the remaining 10.95 million tonnes under 'Remaining Resources' category. Major deposits of Fluorspar are located in Gujarat, Rajasthan, Chhattisgarh and Maharashtra.

GYP SUM

The total resources of mineral Gypsum as per UNFC system as on 1.4.2005 were estimated at 1,237 million tonnes. Of these 69 million tonnes have been placed under reserve and 1,168 million tonnes under 'Remaining Resources'. The main occurrences of gypsum are located in Rajasthan, Jammu and Kashmir, Gujarat and Tamil Nadu. Rajasthan alone accounts for more than 80 per cent country resource. Minor occurrences of gypsum are in Andhra Pradesh, Himachal Pradesh, Karnataka, Madhya Pradesh and Uttarakhand.

GRAPHITE

As per the UNFC the total resources of graphite in the country as on 1.4.2005 are placed at about 168.77 million tonnes comprising 10.75 million tonnes in the reserves category and remaining 158.02 million tonnes under resources category. Out of total resources, Arunachal Pradesh accounts 43 per cent followed by Jammu and Kashmir (37 per cent), Jharkhand (6 per cent), Tamil Nadu (5 per cent) and Orissa (3 per cent). However, in term of reserves, Tamil Nadu has major share of about 37 per cent.

ILMENITE

The resources of Ilmenite are 461.37 million tonnes as per Department of Atomic Energy. Ilmenite occurs mainly in beach sand deposits right from Ratnagiri

(Maharashtra) to coast in Kerala, Tamil Nadu and Orissa. The mineral is also found in Andhra Pradesh, Bihar and West Bengal.

KAOLIN

India possesses fairly large resources of china clay. The total resources as per UNFC system as on 1.4.2005 are about 2596 million tonnes out of which, 222 million tonnes are placed in reserves category. The occurrences of china clay are distributed in Kerala, West Bengal, Rajasthan, Orissa, Karnataka, Jharkhand, Gujarat Meghalaya, Andhra Pradesh and Tamil Nadu.

LIMESTONE

The total resources of limestone of all categories and grades as per UNFC system as on 1.4.2005 are estimated at 175345 million tonnes. Of which 12715 million tonnes are under 'Reserves' category and 162630 million tonnes are under 'Remaining Resources' category. Karnataka is the leading state followed by Andhra Pradesh, Gujarat, Rajasthan, Meghalaya, Chhattisgarh, Madhya Pradesh, Orissa, Maharashtra and Uttarakhand.

MICA

Important mica bearing pegmatite occurs in Andhra Pradesh, Jharkhand, Maharashtra, Bihar and Rajasthan. The total resources of Mica in the country as per UNFC system as on 1.4.2005 are estimated at 393855 tonnes, out of which only 68570 tonnes are placed under 'Reserves' category. 'Remaining resources' are placed at 325285 tonnes. Rajasthan accounts for about 51 per cent resources, followed by Andhra Pradesh Maharashtra and Bihar.

MAGNESITE

The total resources of magnesite as per UNFC system as on 1.4.2005 are about 338 million tonnes, of which reserves and remaining resources are 76 million tonnes and 262 million tonnes, respectively. Substantial quantities of resources are established in Uttarkhand (68 per cent) followed by Rajasthan (16 per cent) and Tamil Nadu (13 per cent). Andhra Pradesh, Himachal Pradesh, Jammu and Kashmir, Karnataka and Kerala contribute for the balance.

KYANITE AND SILLIMANITE

The total resources of kyanite and sillimanite as per UNFC system as on 1.4.2005 are 103 million tonnes and 74 million tonnes, respectively. Out of these the reserves categories are 1.4 million tonnes for kyanite and 11 million tonnes for sillimanite. Kyanite deposits are located in Maharashtra, Karnataka, Jharkhand, Rajasthan, Andhra Pradesh, Kerala, Tamil Nadu and West Bengal. Sillimanite resources are located mainly in Orissa, Tamil Nadu, Uttar Pradesh, Kerala, Andhra Pradesh, Assam and West Bengal with minor occurrences in Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Meghalaya and Rajasthan.

PHOSPHATE MINERALS

Deposits of phosphorites are located in Madhya Pradesh, Rajasthan, Uttarakhand, Jharkhand, Uttar Pradesh and Gujarat. Besides, apatite deposits of commercial importance are reported from Jharkhand, West Bengal, Andhra Pradesh, Tamil Nadu and Rajasthan. The total resources of apatite as per UNFC system as on 1.4.2005 are placed at 26.86 million tonnes, out of which 6 million tonnes are under reserves category and about 21 million tonnes are under remaining resources category. Out of

the total resources, the bulk 61 per cent are located in West Bengal. The total resources of rock phosphate as per UNFC system as on 1.4.2005 are placed at 305 million tonnes. out of which 53 million tonnes are placed under reserves and 252 million tonnes under remaining resources category. Bulk of reserves are located in Rajasthan and Madhya Pradesh.

OTHER MINERALS

Other minerals occurring in significant quantities in India are bentonite (Rajasthan, Gujarat, Tamil Nadu, Jharkhand and Jammu and Kashmir), corundum (Karnataka, Andhra Pradesh, Rajasthan, Tamil Nadu and Chhattisgarh), calcite (Andhra Pradesh, Rajasthan, Madhya Pradesh, Tamil Nadu, Haryana, Karnataka, Uttar Pradesh and Gujarat), fuller's earth (Rajasthan, Andhra Pradesh, Arunachal Pradesh, Assam Madhya Pradesh and Karnataka), garnet (Tamil Nadu, Orissa Andhra Pradesh, Rajasthan and Kerala), pyrites (Bihar, Rajasthan, Karnataka, Himachal Pradesh, West Bengal and Andhra Pradesh), steatite (Rajasthan, Uttarakhand, Kerala, Maharashtra, Andhra Pradesh and Madhya Pradesh), wollastonite (Rajasthan and Gujarat), zircon (beach sand of Kerala, Tamil Nadu, Andhra Pradesh and Orissa) and quartz and silica minerals are widespread and occur in nearly all states. Besides, the country has vast marble, slate and sandstone deposits. Granite is mainly mined in Tamil Nadu, Karnataka, Andhra Pradesh and Rajasthan; marble in Rajasthan, Gujarat and Madhya Pradesh; slate in Madhya Pradesh and Andhra Pradesh and sandstone in Rajasthan.

MINERAL AND METAL PRODUCTION

India produces as many as 86 minerals which include 4 fuel, 10 metallic, 46 non-metallic, 3 atomic minerals and 23 minor minerals (including building and other materials). The total value of country's mineral production in 2008-09 is estimated to be about ₹ 115981 crores, an increase of about 7 per cent over the previous year. Of this, fuel minerals constituted ₹ 73063 crores (63 per cent), metallic minerals for ₹ 29189 crores (25 per cent) and non-metallic minerals including minor minerals of about ₹ 13728 crores (12 per cent).

ORGANIZATIONS UNDER THE MINISTRY

The Ministry has following attached/subordinate offices. Public Sector undertakings, disinvested companies and research organization under its administrative control.

GEOLOGICAL SURVEY OF INDIA (GSI)

Geological Survey of India, the premier earth science organization of the country, is the principal provider of basic earth science information to the Government, Industry and the geoscientific sector. The vibrant steel, coal, metals, cement and power industries which expanded phenomenally in the post-Independence era, bear eloquent testimony to the GSI's contribution to national development.

Beginning as a department engaged primarily in research for coal, GSI in the last 158 years has expanded its activities manifold and has been involved either directly or indirectly in almost all areas of nation building. GSI is now the custodian of one of the largest and most comprehensive earth science database developed over the last one and half century. Its Charter of operation (revised, 21st May, 2009) laid down by the Government of India, detailing the scope of activities and responsibilities of the GSI encompasses practically the entire gamut of earth science activities. The Charter reflects the broad responsibility of GSI extending from the lofty peaks of the

(Value in ₹ Crore)

PRODUCTION OF SELECTED MINERALS, 2005-06 to 2009-10

Mineral	Unit	2005-2006		2006-2007		2007-2008 (R)		2008-2009 (P)		2009-2010 (E)	
		Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value
All Minerals			90319.64		104490.48		119799.34		122281.53		127921.42
Fuel			63066.51		66158.29		70397.31		70527.66		79602.69
Coal	M.Tonnes	407	33675.26	431	34836.79	457	38464.56	493	39084.70	549	43216.93
Lignite	M.Tonnes	30	2153.14	31	2626.03	34	2960.88	32	2672.40	58	4819.05
Natural Gas(Utilised)	M.C.M.	32202	9308.28	31747	9764.16	32417	9968.70	32849	10107.31	42328	13141.11
Petroleum (crude)	M.Tonnes	32	17929.83	34	18931.32	34	19003.17	34	18662.84	33	18425.60
Metallic Minerals			13891.16		18285.80		29335.76		31533.17		27571.16
Bauxite	th. tonnes	12596	293.32	157.33	384.78	22625	568.39	15554	430.88	13506	432.12
Chromite	th. tonnes	3714	1092.95	5296	1450.17	4873	2142.19	3981	2217.06	3218	978.00
Copper Conc.	th. tonnes	125	250.90	150	311.71	217	500.96	138	393.47	124	330.25
Gold	Kg.	2879	270.00	2488	229.09	2969	301.74	2464	312.15	1788	264.19
Iron Ore	th. tonnes	165230	10803.88	187696	14204.31	213246	23379.04	215437	25150.52	226008	22654.30
Lead Conc.	th. tonnes	96	76.81	107	133.14	126	144.39	134	138.46	127	137.80
Manganese ore	th. tonnes	1909.35	507.04	2116	557.37	2697	1206.04	2829	1730.38	2000	1330.93
Zinc Conc.	th. tonnes	889	571.97	947	971.47	1036	939.42	1226	943.75	1338	1132.03
Other met. Minerals			24.29		43.76		153.60		216.50		311.55
Non-Metallic Minerals			2894.61		3351.46		3371.33		3525.78		4052.63
Ball Clay	th. tonnes	407	4.93	627	13.87	796	14.04	912	18.03	876	18.71
Barytes	th. tonnes	1156	44.41	1681	94.71	1076	57.01	1682	95.57	2801	380.28
Diamond	Carats	44170	23.37	2180	1.47	586	0.57	536	0.43	4503	4.49
Dolomite	th. Tones	4751	116.28	5172	112.57	5852	146.12	4469	118.62	5121	140.86
Fire clay *	th. tonnes	536	6.24	497	6.59	545	8.69	391	6.50	524	8.17
Garnet (Abrasive)	th. tonnes	672	18.28	859	25.92	1276	52.37	1053	45.37	4421	77.99

Gypsum	th. tonnes	3291	40.12	3006	49.42	3400	71.97	3716	84.07	3182	81.70
Kaolin	th. tonnes	1336	205.36	1460	162.22	1466	57.36	2213	70.05	2763	67.54
Laterite	th. tonnes	931	9.81	1373	15.76	1479	21.74	1253	18.09	1022	16.03
Lime shell	th. tonnes	110	5.98	104	7.29	128	8.44	95	7.00	93	6.80
Lime stone	M. tonnes	170	1906.08	197	2405.01	193	2399.79	204	2499.86	219369	2653.53
Magnesite	th. tonnes	340	38.57	239	34.17	253	33.43	246	34.72	272	40.26
Phosphorite	th. tonnes	2049	294.28	1587	218.46	1849	212.57	1759	301.75	1495	292.58
Pyroxenite	th. tonnes	341	11.19	302	8.27	289	9.07	283	14.44	342	19.45
Sand (others)	th. tonnes	2278	7.75	1770	6.71	1804	7.50	1764	8.00	2802	11.61
Silica Sand	th. tonnes	2370	28.75	2663	37.79	4304	50.73	2741	28.92	1891	26.92
Sillimanite	th. tonnes	33	17.43	26	10.13	41	17.67	34	23.53	22	21.43
Steatite	th. tonnes	682	36.38	740	40.12	923	59.33	832	50.73	843	50.71
Wollastonite	th. tonnes	129.00	9.98	132	11.41	119	10.64	108	8.71	101	8.60
Other non-metallic minerals			69.47		89.59		131.90		91.39		124.97
Minor Minerals			10467.36		16694.93		16694.93		16694.93		16694.93

Figures rounded off.

M. Tonnes - Million tonnes, 000 tonnes; thousand tonnes; M.C.M. Million cubic metre; Kg-Kilogram; ++ - Negligible

(P): Provisional and based on MCDR; return to the extent available with IBM

* : Excludes the production of Fireclay, if any recovered incidental to coal mining.

(R) : Revised figure (E) estimated figures

Note: (1) The value figures pertain to pithead value

(2) Date based on the returns received under MCDR 1988 except coal, lignite, petroleum (crude) natural gas (utilised) and minor minerals

Source

a) Coal and Lignite Coal Controller Kolkata

b) Petroleum (crude) and National Gas : Ministry of Petroleum & Natural Gas, New Delhi

c) Minor Minerals : State Government

Himalaya to the remote continent of Antarctica and from the desert to the ocean and into the sky.

Creation and updation of national geoscientific information and knowledge base through ground, marine and airborne surveys and their dissemination are the primary goals of GSI. It has Central Head Quarters at Kolkata, six regional offices at Nagpur, Kolkata, Shillong, Lucknow, Hyderabad and Jaipur besides Airborne Miner Surveys and Exploration wing, Bangaluru; Marine Wing, Kolkata; Coal Wing, Kolkata and Training Institute, Hyderabad.

INDIAN BUREAU OF MINES (IBM)

Indian Bureau of Mines (IBM) established on 1st March 1948, is a multidisciplinary scientific and technical organisation under Ministry of Mines, with statutory and developmental responsibilities for conservation and systematic exploitation of mineral resources other than coal, petroleum and natural gas, atomic minerals and minor minerals.

IBM has its headquarter at Nagpur with 3 Zonal Offices, 12 Regional Offices and 2 Sub-Regional offices spread all over the country, apart from the Modern Minister Processing Laboratory Pilot Plant constructed with UNDP assistance at Nagpur. Two Regional Ore Dressing Laboratories and Pilot Plants are in operation at Ajmer and Bangaluru.

The Indian Bureau of Mines (IBM) performs regulatory functions, namely enforcement of the Mineral Conservation and Development Rules, 1988, the relevant provisions of the Mines and Mineral (Development and Regulation) Act, 1957, Mineral Concession Rules, 1960 and Environmental (Protection) Act 1986 and Rules made thereunder. It also undertakes scientific, techno-economic, research oriented studies in various aspects of mining geological studies, ore beneficiation and environmental studies.

IBM provides technical consultancy services to the mining industry for the geological appraisal of mineral resources, and the preparation of feasibility report of mining projects, including beneficiation plants. It prepares mineral maps and countrywide inventory of mineral resources of leasehold and freehold areas. It also promotes and monitors community development activities in mining areas. IBM also functions as Data Bank of Mines and Minerals and publishes statistical information. It also brings out technical publications/monographs on individual mineral commodities and bulletins of topical interest. It advises the Central and State Governments on all aspects of mineral industry, trade, legislation etc.

PUBLIC SECTOR AND DISINVESTED COMPANIES

The Ministry of Mines has four public sector undertaking (PSUs) under its administrative control. National Aluminium Company Limited (NALCO), Hindustan Copper Limited (HCL) and Bharat Gold Mines Limited (BGML) are operating in the field of mining and mineral processing, and Mineral Exploration Corporation Limited (MECL) is operating in the field of mineral exploration. The BGML however, is closed since March 2001. In addition the Government holds 49 per cent equity in Bharat Aluminium Company Limited (BALCO) and 29.54 per cent equity in Hindustan Zinc Limited (HZL) after their disinvestment. The performance of these undertakings in 2008-09 is given below-

National Aluminium Company Limited (NALCO)

National Aluminium Company Limited (NALCO), largest integrated Alumina-Aluminium Plant Complex in India, was incorporated on 7th January, 1981 with its registered office at Bhubaneswar. After completion of first phase expansion at an investment of ₹ 4200 crore in 2004, NALCO has presently installed capacity of 4.8 Million Tonnes Per Year (MTPY) Bauxite Mine and 1.575 MTPY of Alumina Refinery at Panchapatmali, and 0.345 MTPY Aluminium Smelter at Angul. It has 960 MW (8X120) MW Captative Power Plant at Angul, all in Orissa and Port Handling Facilities at Visakhapatnam (Andhra Pradesh) for export of alumina and import of caustic soda. The Company also utilizes Kolkata and Paradeep Ports for export of Aluminium. NALCO had been granted Navratna status on 28.4.2008.

Second phase expansion of NALCO's Integrated Alumina-Aluminium Complex, at an outlay of ₹ 4091.51 crore, at July 2003 price level, approved by the Government in October 2004, envisaging augmentation of Bauxite Mines capacity from 4.8 MTPY to 6.3 MTPY, Alumina Refinery capacity from 1.575 MTPA to 2.1 MTPA, Aluminium Smelter capacity from 0.345 MTPA to 0.46 MTPA and Captive Power Plant (CPP) capacity from 960 MW (8x120 MW) to 1200 MW (10x120) is presently under implementation.

The company is one of the lowest cost producers of alumina and aluminium in the world due to highly efficient operation and very high asset utilization with benchmark in smelting technology. With sustained quality products, the Company's export earnings account for nearly 40 per cent of the sales turnover.

NALCO has been exploring to set up new projects in the country and abroad. The company is examining possibilities to set up a 5 lakh Tonnes Per Annum (TPA) smelter at an investment of 1.3 billion in Indonesia, and 1.55 lakh TPA smelter in first phase and a 1.55 lakh TPA smelter alongwith gas based power plant in second phase at an estimated cost of US \$ 3 billion in Iron NALCO plans to set up a 42 lakh TPA bauxite mines and 14 lakh TPA alumina refinery complex in Andhra Pradesh involving an investment of ₹ 7000 crores.

The Company exports its products to more than 30 countries worldwide. The Company has also opened stockyards in various parts of India to facilitate domestic marketing. With its consistent track record in capacity utilization, technology absorption, quality assurance, exports performance and posting of profits, NALCO is a bright example of India's industrial capability.

Hindustan Copper Limited (HCL)

HCL, a public sector undertaking under the administrative Control of the Ministry of Mines, was incorporated on 9th November, 1967 under the Companies Act, 1956. It was established as a Govt. of India Enterprise to take over all plants, projects, schemes and studies pertaining to the exploration and exploitation of copper deposits, including smelting and refining from National Mineral Development Corporation Ltd. It has the distinction of being the nation's only vertically integrated copper producing company as it manufactures copper right from the stage of mining to beneficiation, smelting, refining and casting of refined copper metal into downstream saleable products.

The company markets copper cathodes, continuous cast copper rod and by

products, such as anode slime (containing gold, silver, etc.) copper sulphate and sulphuric acid. More than 90 per cent of the sales revenue is from cathode and continuous cast copper rods. HCL's mines and plants are spread across four operating units, one each in the States of Rajasthan, Madhya Pradesh, Jharkhand and Maharashtra as named below. Khetri Copper Complex (KCC) at Khetrinagar, Rajasthan, Indian Copper Complex (ICC) at Ghatsila, Jharkhand, Malanjkhanda Copper Project (MCP) at Malanjkhanda, Madhya Pradesh, Taloja Copper Project (TCP) at Taloja, Maharashtra.

The Government of India nationalized the only copper producing company in the private sector, Indian Copper Corporation Ltd, at Ghatsila in Jharkhand in March; 1972 and handed over its management and ownership too Hindustan Copper Limited.

The smelter plant at Khetri Copper Complex (KCC) in Rajasthan with capacity of 31000 tonnes was dedicated to the nation on 5th February, 1975.

In November, 1982, Malanjkhanda Copper Project comprising of a large and fully mechanized open pit mine and concentrator plant was dedicated to the nation.

The continuous cast copper rod plant at Taloja Copper Project of Hindustan Copper Ltd was commissioned in December, 1989 with an installed capacity of 60000 tonnes.

The total installed annual capacity of HCL is 49500 tonnes of refined copper. During 2008-09, HCL produced 27589 tonnes of metal-in-concentrate, 30035 tonnes of refined copper and 51777 tonnes of wire rod.

Production of copper concentrate and value in 2008-09

Production	-	1,26,600 MT
Value	-	Rs. 323 crore

Mineral Exploration Corporation Limited (MECL)

The Mineral Exploration Corporation Limited (MECL) since inception in the year 1972 is carrying out mineral exploration activities. So far, it has added 1,36,376 million tones of mineral reserves to National Mineral Inventory.

The Company manages the functioning of projects through a 2 tier system from the Corporate office at Nagpur. To facilitate the prompt maintenance of plants and machineries deployed at various projects, three Regional Maintenance Centres at Ranchi, Nagpur and Hyderabad are being operated. Technical guidance to thee Project, finalization of geological reports, close liaisoning with the clients and looking for new business opportunities is being carried out through the Zonal Offices located at Ranchi, Nagpur and Hyderabad.

Bharat Gold Mines Limited (BGML)

Bharat Gold Mines Limited (BGML) having registered office at Kolar Gold Fields, was incorporated as a public sector company under the Ministry of Mines, on 1st April 1972. It was engaged in mining and production of gold from its captive mines. The company was referred to the Board for Industrial and Financial Reconstruction (BIFR) who gave its verdict in June 2000 to wind up BGML in public interest. The verdict of BIFR was upheld by Appellate Authority for Industrial and Financial Reconstruction (AAIFR). The company was closed after the Ministry of Labour, accorded permission for closure of BGML w.e.f. 1 March 2001. After prolonged

litigation the Division Bench of High Court of Karnataka in its order dated 26 September 2003 has also upheld the winding up/closure orders passed by BIFR/AAIFR and Ministry of Labour. The Court has made certain recommendations which are under consideration of the Government.

Government of India, on 27.7.2006, have approved a proposal regarding Special Terminal Benefit Package (STBP) for Bharat Gold Mines Limited ex-employees, sale of houses to the employees of BGML at nominal rates. calling of global tender for sale of assets and giving purchase preference to the Employees Co-operative Society/ Society's Company subject to the approval of the High Court of Karnataka (Company Court) and viability of the project. Company Application has been filed in the Hon'ble High Court of Karnataka (Company Court) which is being perused.

As per the Government decision. STBP amount has been distributed to the ex-employees of BGML and allotment of the houses at the rates suggested by the High Court of Karnataka (Company Court) are under process. An Inter-Ministerial Group (IMG) was also constituted to over see the tendering process of BGML. A consultant was appointed for assets valuation of the company, preparation of global tender documents and assisting in global tendering process etc. The Consultant had submitted draft global Tendering documents which have been placed by BGML before the Hon'ble High Court of Karnataka (Company Court) for approval. The matter has since been under consideration of the Hon'ble Court.

Bharat Aluminium Company Limited (BALCO)

Bharat Aluminium Company Limited (BALCO) was incorporated on 27th November, 1965 as a Central Public Sector Undertaking with an integrated Alumina/Aluminium Complex and a 270 MW Captive Power Plant at Korba presently in Chhattisgarh.

The Government of India disinvested 51 per cent equity in the Company along with the transfer of management control in favour of M/s Sterlite Industries (India) Limited with effect from 2nd March, 2001 and consequently, the Company has ceased to be public sector undertaking.

Post disinvestment, BALCO has implemented the expansion at a cost of over Rs. 4000 crores leading to threefold increase in capacities. The smelter capacity has been increased to 3,45,000 MT per annum from 1,00,000 MT per annum and the capacity of the captive power plant from 270MW to 810 MW. The expanded capacity was fully commissioned in the third quarter of 2006-07.

Hindustan Zinc Limited (HZL)

Hindustan Zinc Limited (HZL) was incorporated in January 1966 as a public sector undertaking after the take over of the erstwhile Metal Corporation of India Limited, to develop mining and smelting capacities to substantially meet the domestic demand of zinc and lead metals. HZL's operations are broad-based and its activities range from exploration, mining and ore processing to smelting and refining of lead, zinc together with recovery of by products like silver, cadmium and sulphuric acid. Government of India disinvested its 26 per cent equity in HZL in favour of M/s Sterlite Opportunities and Ventures Ltd (SOVL) on 28th March, 2002, and the management control of the company was also transferred to SOVL on 11th April, 2002, Subsequently, SOVL acquired 20 per cent equity shares of HZL from the market through its open offer. On 11th November, 2003. Government of India further off-

loaded 18.92 per cent of its equity in HZL in favour of SOVL in terms of the Shareholders Agreement. The current shareholding of SOVL in HZL is 64.92 per cent and the Government of India is 29.54 per cent.

HZL with its headquarters at Udaipur operates lead-zinc mines with a total capacity of 7.1 million tonnes per annum and lead-zinc smelters with a total lead-zinc metal production capacity of 762,000 tonnes annum. During the year 2007-08. HZL commissioned Phase-II expansion comprising 170,000 tonnes per annum hydro zinc smelter, 80 MW thermal captive power plant and expansion of Rampura Agucha Mine from 3.75 MT per annum to 5 MT per annum. It has further increased zinc production capacity by 8,000 tonnes per annum by de-bottlenecking.

During the year 2008-09 HZL commissioned another 80 MW thermal captive plant. The Company has undertaken Phase-III expansion programme, which includes 210,000 tonnes per annum hydro zinc smelter, 100,000 tonnes per annum lead smelter along with expansion in its lead-zinc mining capacities and 160 MW thermal captive power plant.

National Institute of Rock Mechanics (NIRM)

The National Institute of Rock Mechanics (NIRM) is a premier center for research in applied and basic rock mechanics. Set up under the Ministry of Mines. Government of India, the Institute provides research and consultancy services for improving safety and productivity in the mining and civil engineering sectors. It is an ISO-9001 : 2008 certified research Institute NIRM has carrying out research work through both government - funded and industry sponsored S and T and consultancy projects. The institute has been extending its support to the industry in areas:

- Engineering Geology,
- Engineering Geophysics
- Geotechnical Engineering
- Rock Fracture Mechanics and Materials Testing.
- Engineering Seismology
- Numerical Modelling, Rock Blasting and Excavation Engineering.
- Mine Design and Ground Control Microseismics and Automation.
- Environmental Engineering and Dimensional Stone Technology.

National Institute of Miners Health (NIMH)

National Institute of Miners Health (NIMH) Nagpur was established for promotion of occupational health and hygiene in mining and mineral based industries and for development of trained manpower in these fields. It was registered as Society in the State of Karnataka. On closure of BGML, a camp office was established at Amravati Road. Wadi, Nagpur in 2002.

The Institute has state - of - the - art infrastructure, equipments and highly trained manpower to conduct and carry out.

- Detailed initial and periodic medical examinations as per Mines Rules, 1955.
- Clinical investigations like routine hematological tests, blood biochemistry, audiometry, spirometry, electrocardiography.

- Computerized vision screening.
- Exposure assessment of individual subjects for noise, dust and vibration using personal dosimeters.
- Risk assessment of work environment for dust, noise, vibration.
- Risk characterization of dust for free silica (using FTIR), heavy metals (using AAS) etc.
- Specialized tests in clinical biochemistry, Protein Biomarkers, Electrophoresis, ELISA, Spectrophotometric analysis.
- HRD activities in mine related health and hygiene issues.

Jawaharlal Nehru Aluminium Research Development and Design Center (JNARDDC).

Jawaharlal Nehru Aluminium Research Development and Design Centre, Nagpur is a "Centre of Excellence" set up in 1989 and became fully functional since 1996. The Centre was conceived as the major R and D support system for the emerging modern aluminium industry in India.

The Centre has well-established facilities for RandD activities in the field of bauxite, Alumina and aluminium. Its principal preoccupation is with all aspects of Bayer process for conversion from bauxite to alumina and electrolytic smelting from alumina to aluminium.

The Centre has successfully completed many major projects awarded by both primary and secondary aluminium producers, bauxite mine owners / importers and also by Ministry of Mines. There has been a steady increase in the internal revenue generation over the last five years.

The Centre also offers analytical and testing facilities to other non-ferrous industries, steel plants, small-scale industries, R&D Organisations and Academic Institutions particularly in the areas of chemical and mineralogical analysis, power characterisation, thermal mapping, micro structural studies, mechanical and non-destructive testing, failure analysis and technical information.

20 Justice and Law

THE Constitution of the Republic of India guarantees, besides other rights, protection of life and personal liberty and provides adequate safeguards against the arbitrary deprivation thereof by the State.

Adoption of a Constitution by India in 1950 did not disturb continuity of existing laws and unified structure of courts. Unity and uniformity of the judicial structure were preserved by placing such areas of law as criminal law and procedure, civil procedure, will, succession, contract including special form of contract, but not including contract relating to agricultural land, registration of deeds and documents, evidence, etc. in the Concurrent List.

SOURCE OF LAW

The main sources of law in India are the Constitution, statutes (legislation), customary law and case law. Statutes are enacted by Parliament, State legislatures and Union Territory legislatures. Besides, there is a vast body of laws known as subordinate legislation in the form of rules, regulations as well as bye-laws made by Central/ State governments and local authorities like municipal corporations, municipalities, gram panchayats and other local bodies. This subordinate legislation is made under the authority conferred or delegated either by Parliament or State or Union Territory legislatures concerned. Judicial decisions of superior courts like Supreme Court and High Courts are important sources of law. Decisions of Supreme Court are binding on all courts within the territory of India. Local customs and conventions which are not against statute, morality, etc. are also recognised and taken into account by courts while administering justice in certain spheres.

ENACTMENT OF LAWS

The Parliament is competent to make laws on matters enumerated in the Union List. State legislatures are competent to make laws on matters enumerated in the State List. Parliament alone has power to make laws on matters not included in the State or Concurrent List. On matters enumerated in the Concurrent List, laws can be made by both Parliament and legislatures. But in the event of repugnancy, law made by Parliament shall prevail and law made by State legislature, to the extent of repugnancy, be void unless the latter law having been reserved for consideration of President, has received his assent and in that event it shall prevail in that State.

JUDICIARY

At the apex of the entire judicial system exists Supreme Court of India with a High Court for each State or group of States, and under High Courts there is a hierarchy of subordinate courts. Panchayat courts also function in some States under various names like *Nyaya Panchayat*, *Panchayat Adalat*, *Gram Kachehri* etc. to decide civil and criminal disputes of petty and local nature. Different State laws provide for jurisdiction of these courts.

Each state is divided into judicial districts presided over by a district and sessions judge, who is the principal civil court of original jurisdiction and can try all offences including those punishable with death. He is the highest judicial authority in a district. Below him, there are courts of civil jurisdiction, known in different states as

munsifs, sub-judges, civil judges and the like. Similarly, criminal judiciary comprises chief judicial magistrate and judicial magistrates of first and second class.

SUPREME COURT

The Supreme Court of India at present comprises the Chief Justice and 28 other Judges appointed by the President of India. Supreme Court Judges retire upon attaining the age of 65 years. In order to be appointed as a Judge of the Supreme Court, a person must be a citizen of India and must have been, for at least five years, a Judge of a High Court or of two or more such Courts in succession, or an Advocate of a High Court or of two or more such Courts in succession for at least 10 years, or he must be, in the opinion of the President, a distinguished jurist. Provisions exist for the appointment of a Judge of a High Court as an Ad-hoc Judge of the Supreme Court and for retired Judges of the Supreme Court or High Courts to sit and act as Judges of that Court.

The Constitution seeks to ensure the independence of Supreme Court Judges in various ways. A Judge of the Supreme Court cannot be removed from office except by an order of the President passed after an address in each House of Parliament supported by a majority of the total membership of that House and by a majority of not less than two-thirds of members present and voting, and presented to the President in the same Session for such removal on the ground of proved misbehaviour or incapacity. A person who has been a Judge of the Supreme Court is debarred from practising in any court of law or before any other authority in India.

The proceedings of the Supreme Court are conducted in English only. Supreme Court Rules, 1966 are framed under Article 145 of the Constitution to regulate the practice and procedure of the Supreme Court.

The Supreme Court of India has original jurisdiction in any dispute arising: (a) between the Government of India and one or more States or (b) between the Government of India and any State or States on the one side and one or more States on the other or (c) between two or more states.

An appeal shall lie to the Supreme Court from any Judgement, Decree or final order of a High Court in the territory of India, whether in a Civil, Criminal or other proceeding.

HIGH COURTS

High Court stands at the head of the State's Judicial Administration. There are 21 High Courts in the country, three having jurisdiction over more than one State. Among the Union Territories, Delhi alone has a High Court of its own. Other six Union Territories come under jurisdiction of different State High Courts. Each High Court comprises a Chief Justice and such other Judges as the President may, from time to time appoint. The Chief Justice of a High Court is appointed by the President in consultation with the Chief Justice of India and the Governor of the state. The procedure for appointing of the High Court judges is the same except that the recommendation for the appointment of Judges in the High Court is initiated by the Chief Justice of the High Court concerned. They hold office up to 62 years of age. To be eligible for appointment as a judge, one must be a citizen of India and should have held a judicial office in India for 10 years or must have practised as an advocate of a High Court or two or more such courts in succession for a similar period.

Each High Court has power to issue any person or authority and Government within its jurisdiction, direction, orders or writs, including writs which are in the

nature of habeas corpus, mandamus, prohibition, *quo warranto* and certiorari, for enforcement of Fundamental Rights and for any other purpose. This power may also be exercised by any High Court exercising jurisdiction in relation to territories within which the cause of action, wholly or in part arises for exercise of such power, even if the seat of such Government or authority or residence of such person is not within those territories. The total approved sanctioned strength of Judges and additional judges in different High Courts is 886 against which 608 Judges were in position as on 6 January 2009. The following table gives the seat and territorial jurisdiction of the High Courts.

JURISDICTION AND SEAT OF HIGH COURTS

Name	Year	Territorial Jurisdiction	Seat
Allahabad	1866	Uttar Pradesh	Allahabad (Bench at Lucknow)
Andhra Pradesh	1954	Andhra Pradesh	Hyderabad
Bombay	1862	Maharashtra, Goa, Dadra and Nagar Haveli and Daman and Diu	Mumbai (Benches at Nagpur, Panaji and Aurangabad)
Kolkata	1862	West Bengal and Andaman and Nicobar Islands	Kolkata
Chhattisgarh	2000	Chattisgarh	Bilaspur
Delhi	1966	Delhi	Delhi
Guwahati*	1948	Assam, Manipur, Meghalaya, Nagaland, Tripura, Mizoram and Arunachal Pradesh	Guwahati (Benches at Kohima, Aizawl, Imphal, Shillong, Agartala and Itanagar)
Gujarat	1960	Gujarat	Ahmedabad
Himachal Pradesh	1971	Himachal Pradesh	Shimla
Jammu and Kashmir	1928	Jammu and Kashmir	Srinagar and Jammu
Jharkhand	2000	Jharkhand	Ranchi
Karnataka*	1884	Karnataka	Bangalore* (circuit Benches at Dharwar and Gulbarga)
Kerala	1958	Kerala and Lakshadweep	Ernakulam
Madhya Pradesh	1956	Madhya Pradesh	Jabalpur (Benches at Gwalior and Indore)
Madras	1862	Tamil Nadu and Puducherry	Chennai** (Bench at Madurai)
Orissa	1948	Orissa	Cuttack
Patna	1916	Bihar	Patna
Punjab and Haryana®	1966	Punjab, Haryana and Chandigarh	Chandigarh
Rajasthan	1949	Rajasthan	Jodhpur (Bench at Jaipur)

Sikkim	1975	Sikkim	Gangtok
Uttarakhand	2000	Uttarakhand	Nainital

* Originally known as Assam High Court, renamed as Guwahati High Court in 1971.

Originally known as Mysore High Court, renamed as Karnataka High Court in 1973.

@ Originally known as Punjab High Court, renamed as Punjab and Haryana High Court in 1966.

* Bangalore is now known as 'Bēngaluru'.

** Chennai was earlier known as 'Madras'

Each High Court has powers of superintendence over all courts within its jurisdiction. It can call for returns from such courts, make and issue general rules and prescribed forms to regulate their practices and proceedings and determine the manner and form in which book entries and accounts shall be kept.

SUBORDINATE COURTS

The structure and functions of subordinate courts are more or less uniform throughout the country. Designations of courts connote their functions. These courts deal with all disputes of civil or criminal nature as per the powers conferred on them. These courts have been derived principally from two important codes prescribing procedures, i.e., the Code of Civil Procedure, 1908 and the Code of Criminal Procedure, 1973 and further strengthened by local statutes. As per direction of Supreme Court in WP (Civil) 1022/1989 in the All India Judges Association case, a uniform designation has been brought about in the subordinate judiciary's judicial officers all over the country, viz. District or Additional District Judge, Civil Judge (Senior Division) and Civil Judge (Junior Division) on the civil side and on criminal side, Sessions Judge, Additional Sessions Judge, Chief Judicial Magistrate and Judicial Magistrate, etc., as laid down in the Cr.P.C. Appropriate adjustment, if any, has been made in existing posts by indicating their equivalent with any of these categories by all State Governments/UT Administrations.

Under Article 235 of the Constitution of India, the administrative control over the members of subordinate judicial service vests with the concerned High Court. Further in exercise of powers conferred under provision to Article 309 read with Articles 233 and 234 of the Constitution, the State Government shall frame rules and regulations in consultation with the High Court exercising jurisdiction in relation to such State. The members of the State Judicial Services are governed by these rules and regulations.

NATIONAL JUDICIAL ACADEMY

The National Judicial Academy has been set up by the Government of India to provide in-service training to Judicial Officers. The Academy was registered on 17 August 1993 under the Societies Registration Act, 1860. The Academy is located in Bhopal with its registered office in New Delhi. It is fully funded by Government of India.

The Academy will provide training and continuing education to judicial officers of States/UTs as well as ministerial officers working in the Supreme Court of India and the High Courts. The Academy will also function as a centre of excellence in judicial education, research and training.

The objectives of programmes of the Academy include Judicial Reform and Policy Development as well as Research Support Services for greater efficiency,

fairness, access and productivity. It also includes improvements in Court administration and management for a litigant friendly justice system.

LEGAL AID TO THE POOR

Article 39A of the Constitution of India provides for free legal aid to the poor and weaker sections of the society and ensures justice for all. Article 14 and 22(1) of the constitution also make it obligatory for the State to ensure equality before law and a legal system which promotes justice on the basis of equal opportunity to all. In 1987, the Legal Services Authorities Act was enacted by the Parliament which came into force on 9 November 1995 with an object to establish a nationwide uniform network for providing free and competent legal services to the weaker sections of the society on the basis of equal opportunity. The National Legal Services Authority (NALSA) has been constituted under the Legal Services Authorities Act, 1987 to monitor and evaluate implementation of legal services available under the Act.

The Chief Justice of India is the Patron-in-Chief and a Judge of the Supreme Court of India is the Executive Chairperson of the Authority.

In every State, a State Legal Services Authority and in every High Court, a High Court Legal Services Committee have been constituted. District Legal Services Authorities and Taluka Legal Services Committees have been constituted in the Districts and most of the Talukas in order to give effect to the policies and directions of the NALSA and to provide free legal services to the people and conduct Lok Adalats in the State. The State Legal Services Authorities are chaired by the Chief Justice of the respective State and the District and Taluka Legal Services Committees are chaired by the Judicial Officers at the District and Taluka Level.

Supreme Court Legal Services Committee has been constituted to administer and implement the legal services programme insofar as it relates to the Supreme Court of India.

FUNCTIONING OF NALSA

The NALSA issues guidelines for the State Legal Services Authorities to implement the Legal Aid Programmes and schemes throughout the country.

Primarily, the State Legal Services Authorities, District Legal Services Authorities, Taluka Legal Services Committees, etc. have been asked to discharge the following two main functions on regular basis:-

1. To Provide Free Legal Services to the eligible persons; and
2. To organize Lok Adalats for amicable settlement of disputes.

Free Legal Services

The Free Legal Services include:- (1) Payment of court fee, process fees and all other charges payable or incurred in connection with any legal proceedings; (2) Providing Advocate in legal proceedings; (3). Obtaining and supply of certified copies of orders and other documents in legal proceedings; and (4) Preparation of appeal, paper book including printing and translation of documents in legal proceedings.

Eligible persons for getting free legal services include:- (1) Women and children; (2) members of SC/ST; (3) Industrial workmen; (4) Victims of mass disaster: violence, flood, drought, earthquake, industrial disaster; (5) disabled persons; (6) Persons in

custody; (7) Persons whose annual income does not exceed ₹ 50,000/- and (8) Victims of Trafficking in Human beings.

Lok Adalats

Lok Adalat is a forum where the disputes/cases pending in the court of law or at pre-litigation stage are settled/compromised amicably. The Lok Adalat has been given statutory status under the Legal Services Authorities Act, 1987. Under this Act, an award made by a Lok Adalat is deemed to be a decree of a civil court and is final and binding on all parties and no appeal lies against thereto before any court.

Lok Adalats are being organized by the Legal Services Authorities/Committees U/s 19 of the Legal Services Authorities Act, 1987. Matters such as Matrimonial/Family Disputes, Criminal (Compoundable Offences) cases, Land Acquisition Cases, Labour Disputes, Workmen's Compensation cases, Bank Recovery cases, Pension cases, Housing Board and slum clearance cases and Housing Finance cases, Consumer Grievance cases, Electricity matters, disputes relating to Telephone Bills, Municipal matters including House Tax cases, Disputes with Cellular Companies, etc. are being taken up in Lok Adalats.

With a view to providing compulsory pre-litigative mechanism for conciliation and settlement of disputes relating to 'Public Utility Services', the Parliament has amended the Legal Services Authorities Act, 1987. The amended Act stipulates the establishment of Permanent Lok Adalat for exercising jurisdiction in respect of disputes relating to Public Utility Services, such as transport service, postal, communication, supply of power, service in hospital/dispensary, insurance service, etc. A party to a dispute with such public utility service has to make an application to the Permanent Lok Adalat established under Section 22B of the Legal Services (Amendment) Act, 2002 which has been vested with jurisdiction to decide the matter.

Subsequent to the amendment, Permanent Lok Adalats for Public Utility Services have been established in sixteen States/UTs, i.e. Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Meghalaya, Punjab, Rajasthan, Sikkim, Tripura and U.T. of Chandigarh.

Legal Aid Counsel Scheme

NALSA has initiated Legal Aid Counsel Scheme to provide meaningful legal assistance to undertrial prisoners, on account of lack of resources or other disabilities who cannot engage counsels to defend them. Now, Legal Aid Counsels have been attached to each Magisterial Court who provide assistance and defend a person who is not able to engage a counsel, right from the stage he/she is produced in the court by the police.

Permanent and Continuous Lok Adalat Scheme

A Permanent and Continuous Lok Adalat Scheme has been formulated and implemented to establish Lok Adalats under Section 19 of the Act in all the districts of the country. Under this scheme, the Lok Adalats are now organized regularly at designated venues, even away from court complexes and the cases which remain unsettled are taken up in the next Lok Adalat. Lok Adalats have thus acquired permanency and continuity and are no more occasional.

Counselling and Conciliation Scheme

NALSA has formulated a Counselling and Conciliation Scheme to encourage the settlement of disputes by way of negotiations and conciliation. Under this scheme,

Counselling and Conciliation Centres are being set up in all the Districts of the country for guiding and motivating the litigants to resolve their disputes amicably. Such Centres have been set up in most of the Districts.

Legal Literacy Programme

NALSA has formulated a strategy to provide basic and essential knowledge to the vulnerable groups so that they can understand the law and know the scope of their rights under the law and eventually assert their rights as a means to take action, uplift their social status and being in social change.

NALSA has been organizing the Legal Aid Camps through State Legal Services Authorities, Taluka Legal Services Committees, NGOs. etc. in the rural area and slum areas for educating the weaker sections as to their rights and for encouraging them to settle their disputes through ADR Mechanism. The people are educated/made aware of their rights, benefits and privileges guaranteed by social welfare legislations, administration programmes and measures etc.

The NALSA has been organizing meetings, seminars and workshops connected with legal services programmes in different parts of the country. The NALSA has developed audio visual spots and publicity material to make the common man aware of the various aspects of the legal services programmes. Documentary films have also been prepared and are being screened in the different parts of the country through Directorate of Field Publicity, Government of India. NALSA is publishing a newsletter 'Nyaya Deep' to promote a healthy working relationship between legal services functionaries throughout the country.

ACCREDITATION OF VOLUNTARY SOCIAL SERVICE INSTITUTIONS

NALSA has formulated a scheme for accreditation of Voluntary Social Service Institutions to establish a nation wide network of voluntary agencies in order to spread legal literacy, legal awareness and publicity for legal services throughout the nook and corner of the country. All the State Legal Services Authorities have been urged to identify Social Service Institutions in all Districts and give them accreditation.

Scheme on Supporting the Implementation of National Rural Employment Guarantee Scheme (NREGS)

A scheme on supporting the implementation on NREGS (now MIGNREGS) through State Legal Services Authorities has been formulated by NALSA for generating awareness through Legal Literacy and Awareness Campaign and to establish a grievance redressal forum by organising Lok Adalats to resolve the disputes/complaints or legal problems of any person in respect of implementation of the scheme and employment guaranteed under NREGA.

ATTORNEY GENERAL

The Attorney General for India is appointed by the President and holds office during the pleasure of the President. He must be a person qualified to be appointed as a Judge of the Supreme Court. It is the duty of the Attorney-General in India to give advice to the Government of India upon such legal matters and to perform such other duties of a legal character, as may be referred or assigned to him by the President and to discharge the functions conferred on him by or under the Constitution or any other law. In the performance of his duties, he has the right of audience in all courts in India as well as the right to vote. In the discharge of his functions, the Attorney General is assisted by the Solicitor-General and the Additional Solicitors-General.

ALTERNATIVE DISPUTE REDRESSAL (ADR)

With the steep growth in the number of laws and the number of cases, the Court system is under great pressure. In order to reduce the heavy demand on Court time, efforts need to be made to resolve the disputes by resorting to Alternative Dispute Resolution Methods before they enter the portals of the court. The Arbitration, Mediation and Conciliation are tools of Alternative Dispute Redressal System.

Arbitration

Arbitration is a process in which a neutral third party or parties render a decision based on the merits of the case. In the Indian context the scope of the rules for the arbitration process are set out broadly by the provisions of the Arbitration and Conciliation Act 1998 and in the areas uncovered by the Statute the parties are free to design an arbitration process appropriate and relevant to their disputes.

Mediation

The process of mediation aims to facilitate the development of a consensual solution by the disputing parties. The mediation process is overseen by a non-partisan third party - the Mediator. The authority of the mediator vests on the consent of the parties that he should facilitate their negotiations.

Conciliation

This is a process by which resolution of disputes is achieved by compromise or voluntary agreement. In contrast to arbitration, the conciliator does not render a binding award. The parties are free to accept or reject the recommendations of the conciliator. The conciliator is in the Indian context, often a Government official whose report contains recommendations. So far as Department of Legal Affairs is concerned, this Department provides annual recurring Grants-in-aid to National Legal Services Authority (NALSA) which is a statutory body.

As regards the promotion of alternative methods of dispute resolution, the International Centre for Alternative Dispute Resolution (ICADR) was set up by the Department of Legal Affairs as an autonomous body registered under the Societies Registration Act, 1860. The Minister for Law and Justice is the Chairman of ICADR. The main object of the ICADR is to promote, popularize and propagate Alternative Dispute Resolution to facilitate early resolution of disputes so as to reduce the burden of arrears in the Courts.

LEGAL PROFESSION

In India, the law relating to legal profession is governed by the Advocates Act, 1961 and the rules framed thereunder by the Bar Council of India. It is a self-contained code of law relating to legal practitioners and provides for the constitution of State Bar Councils and Bar Council of India. A person enrolled as an advocate under the Advocates Act, 1961, is entitled to practise law throughout the country. An advocate on the roll of a State Bar Council may apply for transfer to the roll of any other State Bar Council in the prescribed manner. No person can be enrolled as an advocate on the rolls of more than one State Bar Council. There are two classes of advocates, namely, senior advocates and other advocates. An advocate with his consent, may be designated as a senior advocate, if the Supreme Court or a High Court is of the opinion that by virtue of his ability, standing at the Bar or special knowledge or experience in law, he deserves such distinction. A senior advocate cannot appear

without an advocate-on-record in the Supreme Court or without some other advocate on the State Roll in any other court or tribunal. Standards of education have been prescribed for enrolment as an advocate. There are also rules regulating standards of professional conduct and etiquette and other matters. State Bar Councils have disciplinary jurisdiction over advocates whose names appear on their rolls. This is subject to right of appeal to the Bar Council of India and a further right of appeal to the Supreme Court of India.

ADVOCATES WELFARE FUND

Social security in the form of financial assistance to junior lawyers and welfare schemes for indigent or disabled advocates, has always been a matter of concern for the legal fraternity. Certain States enacted thereon legislation on the subject. The Parliament enacted "Advocates Welfare Fund Act, 2001" applicable to the Union Territories and the States which do not have their own enactments on the subject, for consideration of "Advocates Welfare Fund" by the appropriate Government. This Act makes it compulsory for every advocate to affix stamps of the requisite value on every Vakalatnama filed in any court, tribunal or other authority. Sum collected by way of sale of "Advocates' Welfare Funds Stamps" constitute an important source of the Advocates' Welfare Fund.

All practising Advocates shall become members of the Advocates' Welfare Fund on payment of an application fee and annual subscription. The fund shall vest in and be held and applied by the Trustee Committee established by the appropriate Government. The fund shall, *inter-alia*, be used for making ex-gratia grant to a member of the fund in case of a serious health problem, payment of a fixed amount on cessation of practice and in case of death of a member, to his nominee or legal heir, medical and educational facilities for the members and their dependants, purchase of books and for common facilities for advocates.

BAR COUNCIL OF INDIA (BCI)

The Bar Council of India is a statutory body constituted under the Advocates Act, 1961. The Bar Council of India under the aegis of the Bar Council of India Trust had organized National Moot Court Competition at Bhopal on 1 to 3 December 2006.

The Bar Council of India during the year started "Bar Council of India Research Centre" in Council building for the purpose of promotion of Legal Education and related activities. Fixed Assets, e.g. furniture, computers with printers and law books were purchased in the Research Centre for research work to be conducted. A small library has also been set up for reference purpose and for the benefit of lawyers.

LAW COMMISSION OF INDIA

The Law Commission of India is a non-statutory body constituted by the Government from time to time. The Commission was originally constituted in 1955 and is reconstituted every three years. The Nineteenth Law Commission, i.e. the present one, was constituted with effect from 1 September 2009 for a term of three years up to 31 August 2012. Hon'ble Justice Shri P.V. Reddi is the Chairman and Dr. Brahm A. Agrawal is the Member-Secretary.

The Terms of Reference of the nineteenth Law Commission are as follows :-

A. Review/Repeal of obsolete laws

- (i) to identify laws which are no longer needed or relevant and can be immediately repealed;

- (ii) to identify laws which are in harmony with the existing climate of economic liberalisation which need no change;
- (iii) to identify laws which require changes or amendments and to make suggestions for their amendment;
- (iv) to consider in a wider perspective the suggestions for revision/amendment given by Expert Groups in various Ministries/Departments with a view to coordinating and harmonising them;
- (v) to consider references made to it by Ministries/Departments in respect of legislation having bearing on the working of more than one Ministry/Department; and
- (vi) to suggest suitable measures for quick redressal of citizens' grievances, in the field of law.

B. Law and Poverty

- (i) to examine the Laws which affect the poor and carry out post-audit for socio-economic legislation;
- (ii) to take all such measures as may be necessary to harness law and the legal process in the service of the poor.

C. To keep under review the system of judicial administration to ensure that it is responsive to the reasonable demands of the times and in particular to secure

- (i) elimination of delays, speedy clearance of arrears and reduction in costs so as to secure quick and economical disposal of cases without affecting the cardinal principles that decisions should be just and fair.
- (ii) simplification of procedure to reduce and eliminate technicalities and devices for delay so that it operates not as an end in itself but as a means of achieving justice.
- (iii) improvement of standards of all concerned with the administration of justice.

- D. To examine the existing laws in the light of Directive Principles of State Policy and to suggest ways of improvement and reform and also to suggest such legislation as might be necessary to implement the Directive Principles and to attain the objective set out in the Preamble to the Constitution.
- E. To examine the existing laws with a view to promoting gender equality and suggesting amendments thereto.
- F. To revise the Central Acts of general importance so as to simplify them and to remove anomalies, ambiguities and inequities.
- G. To recommend to the Government measure for bringing the statute book up-to-date by repealing obsolete laws and enactments or parts thereof which have outlived their utility.
- H. To consider and to convey to the Government its views on any subject relating to law and judicial administration that may be referred to it by the Government through Ministry of Law and Justice (Department of Legal Affairs).
- I. To consider the requests for providing research to any foreign countries as may be referred to it by the Government through Ministry of Law and Justice (Department of Legal Affairs).
- J. To examine the impact of globalization on food security, unemployment and recommend measures for the protection of the interests of the marginalized.

National Commission to Review the Working of Constitution

The National Commission to Review the Working of the Constitution was set up on 22 February 2000. The terms of reference stated that the Commission shall examine, in the light of the experience of the past 50 years, as to how best the Constitution can respond to the changing needs of efficient, smooth and effective system of governance and socio-economic development of modern India within the framework of Parliamentary democracy, and to recommend changes, if any, that are required in the provisions of the Constitution without interfering with its basic structure or features. The Commission was required to complete its work and make recommendations within one year. The tenure of the Commission was extended from time to time up to 31 March 2002.

The Commission submitted its report in two volumes to the Government on 31 March 2002.

INCOME-TAX APPELLATE TRIBUNAL

Section 252 of the Income-tax Act, 1961 provides that the Central Government shall constitute an Appellate Tribunal consisting of as many Judicial Members and Accountant Members as it thinks fit, to exercise the powers and discharge the functions conferred on the Appellate Tribunal by the said Act. The Income-tax Appellate Tribunal was established on 25 January 1941, in pursuance of a similar provision contained in the Indian Income Tax Act, 1922.

The Income Tax Act, 1961 further provides that a Judicial Member of the Tribunal shall be a person, who has for at least 10 years held a Judicial Office in the territory of India or has been a Member of the Central Legal Service and has held a post in Grade-II of that Service or any equivalent or higher post for at least three years or who has been an Advocate for at least ten years. An Accountant Member shall be a person, who has for at least 10 years been in practice of Accountancy as Chartered Accountant under the Chartered Accountants Act, 1949 or as a Registered Accountant under any law formerly in force or partly as Registered Accountant and partly as a Chartered Accountant, or who has been a Member of the Indian Income Tax Service, Group A and has held the post of (Additional) Commissioner of Income-tax or any equivalent or higher post for at least three years. The present sanctioned strength of Members of Tribunal is 126 for 63 benches spread over 27 cities throughout the country out of which only 97 Members are in position and accordingly there are 29 posts of Members, vacant, as on date. The Tribunal is presently headed by the President assisted by one Senior Vice-President and nine Vice-Presidents.

APPELLATE TRIBUNAL FOR FOREIGN EXCHANGE

The Appellate Tribunal for Foreign Exchange was established on 1 June 2000 under section 18 of Foreign Exchange Management Act (FEMA), 1999. Under section 19 of FEMA, the Central Government or any person aggrieved by an order made by Special Director (Appeals), or made by an Adjudicating Authority other than referred to in sub-Section (i) of Section 17, may prefer an appeal to the Appellate Tribunal that may be filed within 45 days from the date of receiving the order by the aggrieved person or the Central Government.

Section 20 of FEMA provides that the Appellate Tribunal shall consist of a Chairperson and such number of members as the Central Government may deem fit. The jurisdiction of the Appellate Tribunal may be exercised by the Benches. The Bench may be constituted by the Chairperson, with one or more Members as the Chairperson deems fit. The Benches of the Appellate Tribunal shall ordinarily sit at New Delhi and at such other places as the Central Government may, in consultation

with the Chairperson, notify, and the Chairperson may transfer a Member from one Bench to another Bench. If at any stage it appears that the matter should be heard by a Bench of two Members the Chairperson may transfer the matter to such Bench as he deems fit.

A person who is qualified to be a Judge of a High Court or is or has been a Judge of High Court can be appointed as Chairperson of the Tribunal and a person who has been or is qualified to be a District Judge can be appointed as a Member of the Tribunal.

Under section 49 sub-section (5) clause (b), all appeals which were pending before PERA Board have been transferred and are at the disposal of the Appellate Tribunal constituted under Foreign Exchange Management Act.

The International Centre for Alternative Dispute Resolution (ICADR)

The International Centre for Alternative Dispute Resolution (ICADR) was registered under the Societies Act, 1860 on 31 May 1995. It is an autonomous organization working under the aegis of the Ministry of Law and Justice, Government of India with its headquarters at New Delhi and Regional Centres at Hyderabad and Bangalore. It has been established to promote, popularize and propagate alternative dispute resolution methods to facilitate earlier resolution of disputes and to reduce the burden of arrears in Courts.

ENFORCEMENT AGENCIES

POLICE

The Police force in the country is entrusted with the responsibility of maintenance of public order and prevention and detection of crimes. Public order and police being state subjects under the Constitution, police is maintained and controlled by States.

The Police force in a State is headed by the Director General of Police/Inspector General of Police. State is divided into convenient territorial divisions called ranges and each police range is under the administrative control of a Deputy Inspector General of Police. A number of districts constitute the range. District police is further sub-divided into police divisions, circles and police-stations. Besides the civil police, states also maintain their own armed police and have separate intelligence Branches, crime branches, etc. Police set-up in big cities like Delhi, Kolkata, Mumbai, Chennai, Bengaluru, Hyderabad, Ahmedabad, Nagpur, Pune, etc. is directly under a Commissioner of Police who enjoys magisterial powers. All senior police posts in various States are manned by the Indian Police Service (IPS) cadres, recruitment to which is made on All-India basis.

The Central Government maintains Central Police forces, Intelligence Bureau (IB), Central Bureau of Investigation (CBI), Institutions for training of police officers and forensic science institutions to assist the States in gathering intelligence, in maintaining law and order, in investigating special crime cases and in providing training to the senior police officers of the State governments.

INDO-TIBETAN BORDER POLICE

The Indo-Tibetan Border Police (ITBP) was raised with 4 Service Battalions on 21 October 1962 after the Chinese aggression as an integrated intelligence/signal/pioneer/engineering/medical and guerrilla unit and was initially placed under the Intelligence Bureau for operational control. In 1975, the primary task of the ITBP was

re-defined as security of northern borders, to check illegal immigration and trans-border crimes. At present, it has 45 service battalions, assisted by 4 specialised battalions.

ITBP is given the responsibility of providing security/communication/medical cover to the pilgrims during Kailash-Mansarovar Yatra besides being the Nodal Agency for Disaster Management in the Central and Western Himalayan region.

BORDER SECURITY FORCE

Border Security Force (BSF) raised in 1965, is entrusted with the task of maintaining permanent vigilance on India's international borders. The present strength of BSF is 159 battalions and guards a total of 6,385.36 km of international borders, spread over mountains, inhospitable deserts, riverine, snow bound and marshy areas. BSF has been assigned the role of promoting a sense of security amongst the people living in the border areas and preventing trans-border crimes, such as smuggling, infiltration/exfiltration and other illegal activities.

ASSAM RIFLES

The Assam Rifles raised as Catchar Levy in 1835 is the oldest Police Force in the country. The force has 46 battalions. The force has a dual role of maintaining internal security in the North-Eastern region and guarding the Indo-Myanmar Border. The Assam Rifles contribution towards assimilation of the people of north-east into the national mainstream is truly monumental. The force is fondly called "The Sentinels of the North-East" and "Friends of the Hill People."

NATIONAL SECURITY GUARDS

The National Security Guards (NSG) modelled on the pattern of SAS of the UK and GSG-9 of Germany has been set up in 1984 for handling counter terrorists and counter hijacking operations including VIP security. It is a highly trained and motivated Force for effectively dealing with terrorist activities in the country. It also trains state police commandos to upgrade their capability to meet the terrorist threats and carry out bomb detection/defusion operations. The NSG maintains the only National Bomb Data Centre of the country. A counter terrorist operation was carried out by the commandos of NSG at Akshar Dham Temple, Ahmedabad in September 2002 and they were successful in eliminating the terrorists who took refuge in the temple complex. NSG personnel have rendered assistance on several occasions in bomb disposal, which have saved many innocent lives.

CENTRAL RESERVE POLICE FORCE

The Central Reserve Police Force (CRPF) is an Armed Force of the Union of India for internal security management. This Force was raised in 1939 at Nimuch (MP) as the Crown Representative's Police and was renamed as the Central Reserve Police Force in 1949.

At present, CRPF has 206 Battalions including Rapid Action Force (RAF). The Force remained committed to internal security and counter insurgency-cum-anti-terrorist operations in various parts of the country. This is a Force with ladies contingents organised in two Mahila Battalions.

RAPID ACTION FORCE

Rapid Action Force (RAF) is an integral part of the Central Reserve Police Force. With 10 battalions it has been conceived in 1992 as a specially trained and equipped to be

an effective strike force mainly to tackle communal riots and riot-like situations. Unlike the conventional force of law and order, the RAF in addition to its law enforcing role has got post-riot role in rescue and relief.

CENTRAL INDUSTRIAL SECURITY FORCE

The Central Industrial Security Force (CISF) was established in 1969 to provide security to industrial undertakings of the government. The Force numbering 1,20,000 as on 22 January 2010 has the responsibility to protect and safeguard the industrial undertakings owned by the Central Government together with such installations as are specified as vital by the Government. CISF is presently providing security cover to 259 public sector undertakings, Airports and the Government buildings in Delhi together with such installations as specified vital. The CISF has launched security and fire protection consultancy services in 2001.

SARDAR VALLABHBHAI PATEL NATIONAL POLICE ACADEMY

The Sardar Vallabhbhai Patel National Police Academy is the premier police training institution in the country which imparts basic as well as in-service training to Indian Police Service (IPS) officers. Established in 1948 at Mount Abu, Rajasthan, the Academy was shifted to Hyderabad in 1975. The Academy also promotes study and research on police-related topics.

SASHASTRA SEEMA BAL

Special Service Bureau (SSB) was set up in the early 1963 under Cabinet Secretariat in the wake of India-China conflict of 1962 to build peoples' morale and inculcate spirit of resistance in the border population against threats of subversion, infiltration and sabotage from across the border. It is now under the administrative control of the Ministry of Home Affairs with effect from 15 January 2001 and assigned the responsibility to guard along the Indo-Nepal and Indo-Bhutan Borders. Name of SSB has been changed as "Sashastra Seema Bal" from 15 December 2003.

CIVIL DEFENCE

Civil Defence includes any measures not amounting to actual combat, for affording protection to any person, property, place or thing in India or any part of the territory thereof against any hostile attack whether from air, land, sea or other places or for operating/mitigating the effect of any such attack, whether such measures are taken before, during or after the time of such attack. Civil Defence is to be organised as an integral part of the defence of the country. Civil Defence aims at saving life, minimise damage to the property, maintaining continuity of industrial production and keeping the public morale high in the event of a hostile attack. Central financial assistance to the States for Civil Defence measures is confined to categorised Civil Defence towns only. Civil Defence is primarily organised on voluntary basis except for a small nucleus of paid staff and establishment which is augmented during emergencies. Civil Defence activities are restricted to 225 categorised towns spread all over the country. The present target of Civil Defence volunteers is 13.20 lakh, of which 5.51 lakh have already been raised and 4.61 lakh trained.

Civil Defence volunteers are also deployed, on a voluntary basis, in various constructive and nation building activities, including providing assistance to the administration in undertaking social and welfare services and in the prevention/mitigation of natural/man-made disasters as well as in post-disaster response and

relief operations. The training of Civil Defence organisation is carried out in three tier levels. The training of trainers and specialised training is conducted at the National Civil Defence College, Nagpur and Team/Leadership training is conducted at State Civil Defence Institutes. Training of the volunteers in Civil Defence Organisation is carried out at Local/Town levels by trained trainers in the form of short-term training programmes.

The Civil Defence has reached out to over 200 schools and colleges besides residential areas in Delhi and has trained over more than 10,000 women and girl students in self-defence. A centrally sponsored Scheme has been launched in 2009 for revamping the Civil Defence during the 11th Plan.

HOME GUARDS

Home Guards is a voluntary force, first raised in India in December 1946, to assist the police in controlling civil disturbance and communal riots. Subsequently, the concept of the voluntary citizens force was adopted by several States. In the wake of Chinese aggression in 1962, the Centre advised the States and Union Territories to merge their existing voluntary organisations into one uniform voluntary force known as Home Guards. The role of Home Guards is to serve as an auxiliary to the police in maintenance of internal security, help the community in any kind of emergency such as an air-raid, fire, cyclone, earthquake, epidemic, etc., help in maintenance of essential services, promote communal harmony and assist the administration in protecting weaker sections, participate in socio-economic and welfare activities and perform Civil Defence duties. Home Guards are of two types—rural and urban. In border States, Border Wing Home Guard Battalions have also been raised, which serve as an auxiliary to the Border Security Force. The organisation is spread over in all States and Union Territories except in Kerala.

Eighteen Border Wing Home Guards (BWHG) Battalions have been raised in the border States viz. Punjab (6 Bns), Rajasthan (4 Bns), Gujarat (4 Bns) and one each of Battalions for Assam, Meghalaya, Tripura and West Bengal to serve as an auxiliary to Border Security Force for preventing infiltration on the international border/coastal areas, guarding of VVIPs and lines of communication in vulnerable areas at the time of external aggression.

Home Guards are raised under the Home Guards Act and Rules of the States/ Union Territories. They are recruited from various cross sections of the people such as doctors, engineers, lawyers, private sector organisations, college and University students, agricultural and industrial workers, etc., who give their spare time to the organisation for betterment of the community. All citizens of India, who are in the age group of 18-50, are eligible to become members of Home Guards. Normal tenure of membership in Home Guards is 3 to 5 years. Amenities and facilities given to Home Guards include free uniform for gallantry, distinguished and meritorious services. A Home Guard, whenever called out for duty/training, is paid duty/training allowance at prescribed rates to meet out-of-pocket expenses. Members of Home Guards with three years service in the organisation are trained in police in maintenance of law and order, prevention of crime, anti-dacoity measures, border patrolling, prohibition, flood relief, fire-fighting, election duties and social welfare activities. In the event of national emergency, some portion of Civil Defence work is also entrusted to the Home Guards.

The Ministry of Home Affairs formulates the policy in respect of role, target, raising, training, equipping, establishment and other important matters of Home

Guards Organisation. Expenditure on Home Guards is generally shared between Centre and State Governments as per existing financial policy on discrete financial terms.

FIRE SERVICE

Fire is a State subject and fire services are administered by the States/Union Territories. The Ministry of Home Affairs renders technical advice to States/Union Territories and Central Ministries on fire protection, fire prevention and fire legislation. For the modernisation of fire service in the States, the Ministry of Home Affairs arranges GIC loans through the Ministry of Finance. A sum of ₹ 404.97 crore as GIC has been arranged for development of State Fire Services since 1980-81. In addition, 10th Finance Commission allocated ₹80 crore as grant-in-aid for the modernisation of fire service in various States during the period 1995-2000. Eleventh Finance Commission further allocated ₹ 201 crore as grant-in-aid for 2000-05. In 2009, a centrally sponsored scheme on strengthening of fire and emergency services has been approved at an estimated cost of Rs. 200 crore during the 11th Plan.

LOK NAYAK JAYAPRAKASH NARAYAN (LNJN) NATIONAL INSTITUTE OF CRIMINOLOGY AND FORENSIC SCIENCE

A premier institution for Criminology, the National Institute of Criminology and Forensic Science (MHA) was set up in 1972. It has been named as ‘Lok Nayak Jayaprakash Narayan National Institute of Criminology and Forensic Science’ on 3 October 2003 and continues to function as the country’s nodal institution for training of functionaries of Criminal Justice System in the twin fields of Criminology and Forensic Science, as well as for research related to these fields.

Teaching Programmes/Training and Research : The Institute is affiliated with the Guru Gobind Indraprastha University, Delhi for running M.A/M.Sc programme in Criminology and Forensic Science. The courses started w.e.f. 3 August 2004. A DNA Lab with state-of-the-art equipment like Bio-robot workstation has been set up.

PERSONAL LAW

The people of India belong to different religions and faiths. They are governed by different sets of personal laws in respect of matters relating to family affairs, i.e., marriage, divorce, succession, etc.

MARRIAGE

Law relating to marriage and/or divorce has been codified in different enactments applicable to people of different religions. These are :

1. The Converts’ Marriage Dissolution Act, 1866;
2. The Indian Divorce Act, 1869;
3. The Indian Christian Marriage Act, 1872;
4. The Kazis Act, 1880;
5. The Anand Marriage Act, 1909;
6. The Indian Succession Act, 1925;
7. The Child Marriage Restraint Act, 1929;
8. The Parsi Marriage and Divorce Act, 1936;
9. The Dissolution of Muslim Marriage Act, 1939;

10. The Special Marriage Act, 1954;
11. The Hindu Marriage Act, 1955;
12. The Foreign Marriage Act, 1969; and
13. The Muslim Women (Protection of Rights on Divorce) Act, 1986.

The Special Marriage Act, 1954 extends to the whole of India except the State of Jammu and Kashmir, but also applies to the citizens of India domiciled in Jammu and Kashmir. Persons governed by this Act can specifically register marriage under the said Act even though they are of different religious faiths. The Act also provides that the marriage celebrated under any other form can also be registered under the Special Marriage Act, if it satisfies the requirements of the Act. The section 4(b) (iii) of the Act was amended to omit the words "or epilepsy." Sections 36 and 38 have been amended to provide that an application for alimony *pendente lite* or the maintenance and education of minor children be disposed of within 60 days from the date of service of notice on the respondent.

An attempt has been made to codify customary law which is prevalent among Hindus by enacting the Hindu Marriage Act, 1955. The Hindu Marriage Act, 1955, which extends to the whole of India, except the State of Jammu and Kashmir, applies also to Hindus domiciled in territories to which the Act extends and those who are outside the said territories. It applies to Hindus (in any of its forms or development) and also to Buddhists, Sikhs, Jains and also those who are not Muslims, Christians, Parsis or Jews by religion. However, the Act does not apply to members of any scheduled tribes unless the Central Government by notification in the official Gazette otherwise directs.

Provisions in regard to divorce are contained in section 13 of the Hindu Marriage Act and section 27 of the Special Marriage Act. Common ground on which divorce can be sought by a husband or a wife under these Acts fall under these broad heads: Adultery, desertion, cruelty, unsoundness of mind, venereal disease, leprosy, mutual consent and being not heard of as alive for seven years.

As regards the Christian community, provisions relating to marriage and divorce are contained in the Indian Christian Marriage Act, 1872 and in section 10 of the Indian Divorce Act, 1869 respectively. Under that section the husband can seek divorce on grounds of adultery on the part of his wife and the wife can seek divorce on the ground that the husband has become convert to another religion and has gone through marriage with another woman or has been guilty of (a) incestuous adultery; (b) bigamy with adultery; (c) marriage with another woman with adultery; (d) rape, sodomy or bestiality; (e) adultery coupled with such cruelty as without adultery would have entitled her to a divorce, a *mensa etoro* (a system of divorce created by the Roman Catholic Church equivalent to judicial separation on grounds of adultery, perverse practices, cruelty, heresy and apostasy) and (f) adultery coupled with desertion without reasonable excuse for two years or more.

In the Indian Divorce Act, 1869 comprehensive Amendments were made through the Indian Divorce (Amendment) Act, 2001 (No. 51 of 2001) to remove discriminatory provisions against women in the matter of Divorce. Further, sections 36 and 41 of the Act were amended by the Marriage Laws (Amendment) Act, 2001 to provide that an application for alimony *pendente lite* or the maintenance and education of minor children be disposed of within 60 days from the date of service of notice on the respondent.

As regards Muslims, marriages are governed by the Mohammedan Law prevalent in the country. As regards divorce, i.e., *Talaq*, a Muslim wife has a much restricted right to dissolve her marriage. Unwritten and traditional law tried to ameliorate her position by permitting her to see dissolution under the following forms : (a) *Talaq-I-Tafwid*: This is a form of delegated divorce. According to this, the husband delegates his right to divorce in a marriage contract which may stipulate, *inter alia*, on his taking another wife, the first wife has a right to divorce him; (b) *Khula*: this is a dissolution of agreement between the parties to marriage on the wife's giving some consideration to the husband for her release from marriage ties. Terms are a matter of bargain and usually take the form of the wife giving up her *mehr* or a portion of it, and (c) *Mubarat* : this is divorce by mutual consent.

Further, by the Dissolution of Muslim Marriage Act, 1939, a Muslim wife has been given the right to seek dissolution of her marriage on these grounds; (i) whereabouts of the husband have not been known for a period of four years; (ii) husband is not maintaining her for a period of two years; (iii) imprisonment of husband for a period of seven years or more; (iv) failure on the part of husband to perform his marital obligations, without a reasonable cause, for a period of three years; (v) impotency of husband; (vi) two-year long insanity; (vii) suffering from leprosy or virulent venereal disease; (viii) marriage took place before she attained the age of 15 years and not consummated; and (x) cruelty.

The Parsi Marriage and Divorce Act, 1936 governs the matrimonial relations of Parsis. The word 'Parsi' is defined in the Act as a Parsi Zoroastrian. A Zoroastrian is a person who professes the Zoroastrian religion. It has a racial significance. Every marriage as well as divorce under this Act is required to be registered in accordance with the procedure prescribed in the Act. However, failure to fulfil requirements on that behalf does not make marriage invalid. The Act provides only for monogamy. By the Parsi Marriage and Divorce (Amendment) Act, 1988, scope of certain provisions of the Parsi Marriage and Divorce Act, 1936 have been enlarged so as to bring them in line with the Hindu Marriage Act, 1955. Recently, sections 39 and 49 of the Parsi Marriage and Divorce Act, 1936 were amended by the Marriage Laws (Amendment) Act, 2001 to provide that an application for alimony *pendent lite* or the maintenance and education of minor children be disposed of within 60 days from the date of service of notice on the wife or the husband as the case may be.

As for the matrimonial laws of Jews, there is no codified law in India. Even today, they are governed by their religious laws. Jews do not regard marriage as a civil contract, but as a relation between two persons involving very sacred duties. Marriage can be dissolved through courts on grounds of adultery or cruelty. Marriages are monogamous.

CHILD MARRIAGE

The Child Marriage Restraint Act, 1929, from 1 October 1978, provides that marriage age for males will be 21 years and for females 18 years.

ADOPTION

Although there is no general law of adoption, it is permitted by the Hindu Adoption and Maintenance Act, 1956 amongst Hindus and by custom amongst a few numerically insignificant categories of persons. Since adoption is legal affiliation of a child, it forms the subject matter of personal law. Muslims, Christians and Parsis have no adoption laws and have to approach the court under the Guardians and

Wards Act, 1890. Muslims, Christians and Parsis can take a child under the said Act only under foster care. Once a child under foster care becomes major, he is free to break away all his connections. Besides, such a child does not have the legal right of inheritance. Foreigners, who want to adopt Indian children have to approach the court under the aforesaid Act.

Hindu law relating to adoption has been amended and codified into the Hindu Adoptions and Maintenance Act, 1956, under which a male or female Hindu having legal capacity, can take a son or daughter in adoption. In dealing with the question of guardianship of a minor child, as in other spheres of family law, there is no uniform law. Hindu Law, Muslim Law and the Guardians and Wards Act, 1890 are three distinct legal systems which are prevalent. A guardian may be a natural guardian, testamentary guardian or a guardian appointed by the court. In deciding the question of guardianship two distinct things have to be taken into account—person of the minor and his property. Often the same person is not entrusted with both.

The Hindu Minority and Guardianship Act, 1956 has codified laws of Hindus relating to minority and guardianship. As in the case of uncodified law, it has upheld the superior right of father. It lays down that a child is a minor till the age of 18 years. Natural guardian for both boys and unmarried girls is first the father and then the mother. Prior right of mother is recognised only for the custody of children below five. In case of illegitimate children, the mother has a better claim than the putative father. The act makes no distinction between the person of the minor and his property and therefore guardianship implies control over both.

Under the Muslim Law, the father enjoys a dominant position. It also makes a distinction between guardianship and custody. For guardianship, which has usually reference to guardianship of property, according to Sunnis, the father is preferred and in his absence his executor. If no executor has been appointed by the father, the guardianship passes on to the paternal grandfather to take over responsibility and not that of the executor. Both schools, however, agree that father while alive is the sole guardian. Mother is not recognised as a natural guardian even after the death of the father.

As regards rights of a natural guardian, there is no doubt that father's right extends both to property and person. Even when mother has the custody of minor child, father's general right of supervision and control remains. Father can, however, appoint mother as a testamentary guardian. Thus, though mother may not be recognised as natural guardian, there is no objection to her being appointed under the father's will.

Muslim law recognises that mother's right to custody of minor children (*Hizanat*) is an absolute right. Even the father cannot deprive her of it. Misconduct is the only condition which can deprive the mother of this right. As regards the age at which the right of mother to custody terminates, the Shia school holds that mother's right to the *Hizanat* is only during the period of rearing which ends when the child completes the age of two, whereas Hanafi school extends the period till the minor son has reached the age of seven. In case of girls, Shia law upholds mother's right till the girl reaches the age of seven and Hanafi school till she attains puberty.

The general law relating to guardians and wards is contained in the Guardians and Wards Act, 1890. It clearly lays down that father's right is primary and no other person can be appointed unless the father is found unfit. This Act also provides that

the court must take into consideration the welfare of the child while appointing a guardian under the Act.

MAINTENANCE

Obligation of a husband to maintain his wife arises out of the status of the marriage. Right to maintenance forms a part of the personal law.

Under the Code of Criminal Procedure, 1973, (2 of 1974), right of maintenance extends not only to the wife and dependent children, but also to indigent parents and divorced wives. Claims of the wife, etc. however, depends on the husband having sufficient means. Claim of maintenance for all dependent persons was limited to ₹ 500 per month. But, this limit was removed by the Code of Criminal Procedure (Amendment) Act, 2001 (No. 50 of 2001). Inclusion of the right of maintenance under the Code of Criminal Procedure has the advantage of making the remedy both speedy and cheap. However, divorced wives who have received money payable under the customary personal law are not entitled to claim maintenance under the Code of Criminal Procedure.

Under Hindu Law, the wife has an absolute right to claim maintenance from her husband. But she loses her right if she deviates from the path of chastity. Her right to maintenance is codified in the Hindu Adoptions and Maintenance Act, 1956. In assessing the amount of maintenance, the court takes into account various factors like position and liabilities of the husband. It also judges whether the wife is justified in living apart from husband. Justifiable reasons are spelt out in the Act. Maintenance *pendente lite* (pending the suit) and even expenses of a matrimonial suit will be borne by either, husband or wife, if the other spouse has no independent income for his or her support. The same principle will govern payment of permanent maintenance.

Under the Muslim Law, the Muslim Women (Protection of Rights on Divorce) Act, 1986 protects rights of Muslim women who have been divorced by or have obtained divorce from their husbands and provides for matters connected therewith or incidental thereto. This Act, *inter alia*, provides that a divorced Muslim woman shall be entitled to (a) reasonable and fair provision and maintenance to be made and paid to her within the *iddat* period by her former husband; (b) where she herself maintains children born to her before or after her divorce, a reasonable and fair provision and maintenance to be made and paid by her former husband for a period of two years from the respective dates of birth of such children; (c) an amount equal to the sum of *mehr* or dower agreed to be paid to her at the time of her marriage or at any time thereafter according to the Muslim Law; and (d) all property given to her before or at the time of marriage or after her marriage by her relatives or friends or by husband or any relatives of the husband or his friends.

In addition, the Act also provides that where a divorced Muslim woman is unable to maintain herself after the period of *iddat*, the magistrate shall order directing such of her relatives as would be entitled to inherit her property on her death according to the Muslim Law and to pay such reasonable and fair maintenance to her as he may determine fit and proper, having regard to the needs of the divorced woman, standard of life enjoyed by her during her marriage and means of such relatives and such maintenance shall be payable by such relatives in proportion to the size of their inheritance of her property and at such periods as he may specify in his order.

Where such divorced woman has children, the magistrate shall order only such children to pay maintenance to her and in the event of any such children being

unable to pay such maintenance, the magistrate shall order parents of such divorced woman to pay maintenance to her.

In the absence of such relatives or where such relatives are not in a position to maintain her, the magistrate may direct State Wakf Board established under Section 13 of the Wakf Act, 1995 functioning in the area in which the woman resides, to pay such maintenance as determined by him.

The Parsi Marriage and Divorce Act, 1936 recognises the right of wife to maintenance—both alimony *pendente lite* and permanent alimony. The maximum amount that can be decreed by the court as alimony during the time a matrimonial suit is pending in court, is one-fifth of the husband's net income. In fixing the quantum as permanent maintenance, the court will determine what is just, bearing in mind the ability of husband to pay, wife's own assets and conduct of the parties. The order will remain in force as long as wife remains chaste and unmarried.

The Indian Divorce Act, 1869 *inter alia* governs maintenance rights of a Christian wife. The provisions are the same as those under the Parsi Law and the same considerations are applied in granting maintenance, both alimony *pendente lite* and permanent maintenance.

SUCCESSION

The Indian Succession Act was enacted in 1925. The object of the Act was to consolidate the large number of laws which were in existence at that time. Laws governing succession to Muslims and Hindus were excluded from the purview of the Act. While consolidating the law in respect of succession, two schemes, one relating to succession to property of persons like Indian Christians, Jews and persons married under the Special Marriage Act, 1954 and the other relating to succession rights or Parsis, were adopted.

In the first scheme, applying to those other than Parsis, in the case of a person dying intestate leaving behind a widow and lineal descendants, the widow would be entitled to a fixed share of one-third of property and lineal descendants shall be entitled to the remaining two-third. This law was amended subsequently with the object of improving rights of widows and it was provided that where the intestate dies leaving behind his widow and no lineal descendant and the net value of the estate does not exceed ₹ 5,000, the widow would be entitled to the whole of this property. Where the net value of the estate exceeds ₹ 5,000 she is entitled to charge a sum of ₹ 5,000 with interest at four per cent payment and in the residue, she is entitled to her share. The Act imposes no restriction on the power of a person to will away his property.

Under the second scheme, the Act provides for Parsi intestate succession. By the Indian Succession (Amendment) Act, 1991 (51 of 1991), the Act was amended to provide equal shares for both sons and daughters in their parental properties, irrespective of the fact that it was that of the father or that of the mother. It also enables the Parsis to bequeath their property to religious or charitable purposes, etc. without any restrictions. In effect the amended law provides that where a Parsi dies intestate leaving behind a widow or widower as the case may be, and children, the property shall be divided so that the widow or widower and each child receives equal share. Further, where a Parsi dies leaving behind one or both parents in addition to children, the property shall be so divided that the parent or each of the parents shall receive a share equal to half the share of each child.

This Act was amended by the Indian Succession (Amendment) Act, 2002. It was felt that section 32 of the principal Act is discriminatory to widows and as such the proviso to section 32 was omitted to remove discrimination in this regard. Section 213 was also amended by this amending Act to make Christians at par with other communities.

The law relating to intestate succession among Hindus is codified in the Hindu Succession Act, 1956 (30 of 1956). It extends to the whole of India except the State of Jammu and Kashmir. The remarkable features of the Act are the recognition of the right of women to inherit property of an intestate equally with men and abolition of the life estate of female heirs.

As per the amendment to the Hindu Succession Act, 1956 which came into force from 9 September 2005 the gender discrimination provisions have been removed from the Hindu Succession Act, 1956 and the following rights to daughters under Section 6 have been given.

- The daughter of a coparcener shall by birth become a coparcener in her own right in the same manner as the son;
- The daughter has the same rights in the coparcenary property as she would have had if she had been a son.
- The daughter shall be subject to the same liability in the said coparcenary property as that of a son; and any reference to a Hindu Mitakshara coparcener shall be deemed to include a reference to a daughter of a coparcener;
- The daughter is allotted the same share as is allotted to a son;
- The share of the pre-deceased son or a pre-deceased daughter shall be allotted to the surviving child of such pre-deceased son or of such pre-deceased daughter;
- The share of the pre-deceased child of a pre-deceased son or of a pre-deceased daughter shall be allotted to the child of such pre-deceased child of the pre-deceased son or a pre-deceased daughter.

After the commencement of the Hindu Succession (Amendment) Act, 2005, no court shall recognize any right to proceed against a son, grandson or great-grandson for the recovery of any debt due from his father, grandfather or great-grandfather solely on the ground of the pious obligation under the Hindu law, of such son, grandson or great-grandson to discharge any such debt.

A vast majority of Muslims in India follow Hanafi doctrines of Sunni law. Courts presume that Muslims are governed by Hanafi law unless it is established to be the contrary. Though there are many features in common between Shia and Sunni schools, yet there are differences in some respects. Sunni law regards Koranic verses of inheritance as an addendum to pre-Islamic customary law and preserves the superior position of male agnates. Unlike Hindu and Christian laws, Muslim law restricts a person's right of testation. A Muslim can bequeath only one-third of his estate. A bequest to a stranger is valid without the consent of heirs if it does not exceed a third of the estate, but a bequest to an heir without the consent of other heirs is invalid. Consent of heirs to a bequest must be secured after the succession has opened and any consent given to a bequest during the lifetime of the testator can be retracted after his death. Shia law allows Muslims the freedom of bequest within the disposable third.

21 Labour

LABOUR policy in India has evolved in response to specific needs of the situation to suit requirements of planned economic development and social justice and has a two-fold objective, viz., maintaining industrial peace and promoting the welfare of labour.

LABOUR REFORMS

Labour Reforms essentially means taking steps to increase production, productivity and employment opportunities in the economy while protecting overall interest of labour. Essentially it means skill development, retraining, redeployment, updating knowledge base of workers-teachers, promotion of leadership qualities etc. Labour Reforms also includes labour law reforms. Changes in the labour laws are also done protecting the interests of workers. Brief notes on different labour laws are given in subsequent paragraphs.

The Minimum Wages Act, 1948

The Minimum Wages Act, 1948 provides for fixation, review, revision and enforcement of minimum wage, both by the Central Government and the State Government, in respect of scheduled employments in their respective jurisdictions. There are 45 scheduled employments in the Central sphere whereas the number of these employments in the State sphere is 1628.

The Minimum Wages Act, 1948 does not allow discrimination between male and female workers or different minimum wages for them. All the provisions of the Act equally apply to both male and female workers.

In order to protect the minimum wages against inflation, the Central Government has made provision of Variable Dearness Allowance (VDA) linked to Consumer Price Index. As regards States/UT Administrations, 26 of them have made VDA as a component of minimum wages. Both Central and State Governments revise the minimum wages in respect of these scheduled employments from time to time. Accordingly, VDA is revised periodically twice a year effective April and October in the Central Sphere and the rates were last revised w.e.f. 01.04.2010.

National Floor Level Minimum Wage

In order to have a uniform wage structure and to reduce the disparity in minimum wages across the country, a concept of National Floor Level Minimum Wage (NFLMW) was mooted. The NFLMW has been revised from time to time primarily taking into account the increase in the Consumer Price Index Number for Industrial Workers. The NFLMW stands at ₹ 100/- per day w.e.f. 1 November, 2009. Since the NFLMW is a non-statutory measure, the State Governments are persuaded to fix/revise minimum wages in such a way that in none of the scheduled employments, the minimum wage is less than NFLMW.

The Payment of Wages Act, 1936

The Payment of Wages Act, 1936, which is a labour friendly Legislation, ensures primarily timely payment of wages and that no unauthorized deductions are made

from the wages of the workers. In exercise of the powers conferred by sub-section (6) of Section 1 of the Act, the Central Government, on the basis of figures of the Consumer Expenditure Survey published by National Sample Survey Organization, has enhanced the wage ceiling from ₹ 6500/- to ₹ 10,000/- per month w.e.f. 8 August, 2007.

The Payment of Wages (Nomination) Rules, 2009

The Central Government has notified the Payment of Wages (Nomination) Rules, 2009, on the 13 November, 2009 defining the procedure for nomination and restricting the nomination by workers to his family members.

The Payment of Bonus Act, 1965

The Payment of Bonus Act, 1965 provides for payment of bonus to employees of factories and other establishments employing 20 or more persons.

The minimum bonus of 8.33 per cent is payable by every industry and establishment under the Section 10 of the Act. The maximum bonus including productivity linked bonus that can be paid in any accounting year shall not exceed 20 per cent of the salary/wage of an employee under the sections 11 and 31 A of the Act.

Consequent to the deliberations held in the 40th and 41st session of the Indian Labour Conference (ILC), the Payment of Bonus Act, 1965 was amended to enhance the eligibility limit and calculation ceiling and bring employees employed through contractors on building operations within the ambit of the Act. Accordingly, the Payment of Bonus (Amendment) Act, 2007 (45 of 2007) was notified on 13 December 2007 enhancing the eligibility limit from ₹ 3,500/- to ₹ 10,000/- per month and calculation ceiling from ₹ 2500/- to Rs. 3500/- per month by amendment of sections 2 (13) and 12 of the Act. Section 32 (vi) of the Payment of Bonus Act 1965 has also been omitted so as to make the employees employed through contractors on building operations to be eligible to receive bonus. The amendment came into effect from 1 April, 2006.

WAGE BOARDS

In the 1950s and 60s, when the organised labour sector was at a nascent stage of its development without adequate unionization or with trade unions without adequate bargaining power, Government in appreciation of the problems which arise in the arena of wage fixation, constituted various Wage Boards. The Wage Boards are tripartite in character in which representatives of workers, employers and independent members participate and finalize the recommendations. The utility and contribution of such boards in the present context are not beyond question. Except for the Wage Boards for Journalists and Non-Journalists, newspaper and news-agency employees, which are statutory Wage Boards, all other Wage Boards are non-statutory in nature.

The Second National Commission on Labour (NCL) has recommended that 'there is no need for any wage board, statutory or otherwise, for fixing wage rates for workers in any industry'. However, the Government decided not to accept the recommendations regarding the statutory wage boards i.e. Wage Boards for Working Journalists and Non-Journalists Newspaper Employees under the Working Journalists and Non-Journalists Newspaper Employees (Conditions of Service) and Miscellaneous Provisions Act, 1955.

Wage Boards for Working Journalists and Other Newspaper Employees

The Working Journalists and other Newspaper Employees (Conditions of Service) and Miscellaneous Provisions Act, 1955 regulates conditions of service of working journalists and other persons employed in newspaper establishments. The Act provides for setting up of Wage Boards for fixation and revision of rates of wages in respect of working journalists and non-journalists newspaper/news agency employees. The Wage Boards for such employees were set up in the years 1956, 1963, 1975, 1985 and 1994. The last Wage Board i.e. Manisana Wage Boards was constituted in the year 1994 and submitted its report to the Government on 25 July, 2000.

The Government has constituted two new Wage Boards one for Working Journalists and other for Non-Journalists Newspaper Employees under Sections 9 and 13 C respectively of the Working Journalists and Other Newspaper Employees (Conditions of Service) and Miscellaneous Provisions Act, 1955 on 24 May, 2007 under the common Chairmanship of Dr. Justice K. Narayana Kurup. The Wage Boards have a common full time Member Secretary besides two common independent members and three persons representing employers in relation to Newspaper establishments, three persons representing working journalists for Wage Board under Section 9 and three persons representing non-journalist Newspaper Employees under Section 13 C of the Act. The Wage Boards have been given three years to submit their report to the Union Government. The Headquarter of the Boards is at New Delhi.

The Wage Boards have recommended interim rates of wages at the rate of 30 per cent of basic wage, which has been accepted by the Government and was notified in October, 2008. Consequent upon the resignation of Dr. Justice K. Narayana Kurup, Justice G.R. Majithia has taken over as the common Chairman of the two Wage Boards w.e.f. 4th April, 2009.

A Central Level Monitoring Committee has been set up by the Government under the Chairmanship of Labour and Employment Adviser, Ministry of Labour and Employment to review the progress of the implementation of recommendations for the Wage Boards from time to time and liaise with the State Government/Union Territories, which are the appropriate Government, for effective implementation of Wage Boards Awards.

The term of the two Wage Boards have been extended upto 31 December, 2010 vide on 2 June, 2010 to finalize the recommendations of the Wage Boards.

CONTRACT LABOUR

The system of employing contract labour is prevalent in most industries for different jobs including skilled and semi-skilled. It is also prevalent in agricultural and allied operations and to some extent, in the services sector. A contract labour is a person who is hired, supervised, contracted and remunerated by a contractor, who, in turn, is compensated by the user enterprises. The concern to improve the working and living conditions of contract labour and the Supreme Court of India's observations in the case of Standard Vacuum Refinery Company Vs. their Workmen, resulted in the enactment of the Contract Labour (Regulation and Abolition) Act, 1970.

The Act seeks to regulate the employment of contract labour in certain establishments and to provide for its abolition in certain circumstances and for matters connected therewith. The Act and the Contract Labour (Regulation and Abolition)

Central Rules, 1971 came into force on 10 February 1971. The Act provides for the constitution of Central and State Advisory Contract Labour Boards to advise the respective Governments on matters arising out of the administration of the Act. The Act contains specific provisions to ensure payment of wages and certain amenities to be provided by the contractor to the contract labour.

The Central and State Governments are empowered to prohibit employment of contract labour in any activity in an establishment and also to grant exemption to establishments/contractors in the case of an emergency, from the applicability of the provisions of the Act. The Central Government has issued 77 notifications prohibiting employment of contract labour in different categories of works in different fields upto 30 June, 2010.

CHILD LABOUR

Constitutional Provisions

The Government of India stands committed to the elimination of child labour in the country. The Constitution provides for protection of children from involvement in economic activities and avocations unsuited to their age. Directive Principles of State Policy in the Constitution strongly reiterate this commitment and this is also provided for in the Fundamental Rights. Realizing the multifaceted nature of this problem, the Government had embarked on a holistic and multi-pronged programme to eliminate child labour from the country in a phased manner, beginning with children working in hazardous occupations and processes and progressively covering those working in other occupations also. On the one hand, it provides for legal action for enforcement purposes and on the other, it also focuses on general development programmes for the economic empowerment of the families of children as well as project based action in areas of high concentration of child labour.

Policy

As per Child Labour (Prohibition and Regulation) Act, employment of children below the age of 14 years is prohibited in notified hazardous occupations and processes. The Act also regulates employment of children in non-hazardous occupations and processes. There are at present 16 hazardous occupations and 65 processes, where employment of children is prohibited. Some of the important prohibited occupations and processes are carpet weaving, building and construction work, brick kilns, production of hosiery goods, work as domestic servants and in tea-shops, road side eateries, etc. On the advice of the Technical Advisory Committee on Child Labour the Government has in September, 2008, notified inclusion of 1 Occupation and 8 Processes in the list of Hazardous Occupations/Processes which include Diving as Occupation and Exposure to excessive heat (e.g. working near furnace) and cold, Mechanized fishing, Food processing, Beverage Industry, Timber handling and loading, Mechanical Lumbering, Warehousing, Exposure to free silica such as slate, pencil industry, stone grinding, slate stone mining, stonequarries, agate industry as Processes. Further, on the recommendations of the Technical Advisory Committee on Child Labour, the Government has shown its intention; vide notification dated 7 June, 2010, to add two more occupations, viz. Circus and Caring of Elephants to the Schedule listing the occupations where employment of children is prohibited.

As per the Census 2001, there are 12.6 million economically active children in the age group of 5 to 14 years, of which approximately 0.12 million are working in hazardous occupations. However, as per the National Sample Survey Organisation

(NSSO) the number of child labour in 2004-05 is estimated at 0.89 crore. The NSSO has agreed to take up a fresh comprehensive National wide survey of child labour in its 66th Round from July 2009 - June 2010, so as to have a clear picture for formulation of strategies to tackle this social menace. Further, the nationwide Census for 2011 has already taken off and the results are expected within a year of its completion.

Programmes

Government had initiated the National Child Labour Project (NCLP) Scheme in 1988 to rehabilitate working children in 12 child labour endemic districts of the country. Its coverage was increased progressively to cover 250 districts in the beginning of Eleventh Plan. During the current Plan, 21 more districts have been covered. Under the NCLP Scheme, children are withdrawn from work and put into special schools, where they are provided with bridge education, vocational training, mid-day meal, stipend, health-care facilities etc. More than 10,000 special schools have been sanctioned with enrolment of approximately 5 lakh children. Apart from a major increase in the number of districts covered under the scheme, the priority of the Government is evident increase in the budgetary allocation during the 11th Plan to ₹ 625 crore. At present, there are 8020 NCLP schools being run in the country with an enrolment of about 4 lakh children, 6.47 lakh working children have already been mainstreamed to regular education under the NCLP Scheme.

Enforcement

Government is also laying lot of stress on the enforcement of the Child Labour Act. State governments are the appropriate authority for implementation of the Act for areas under their jurisdiction. Under the Child Labour (Prohibition and Regulation) Act since 1997-98 to 2008-09, as per the information made available by the State Governments, about 3583327 inspections have been carried out, around 2.45 lakh violations have been detected, 90932 prosecutions launched and 24829 convictions obtained. There have been 5 cases in which imprisonment have been ordered by the court of law. In other cases fines have been imposed on the convicted employers. These enforcement measures have also created awareness amongst employers and thereby voluntary action has been taken by them so as not to employ child labour in their respective units. In addition the Government of India in the Ministry of Labour and Employment has been launching media campaign, both print and audiovisual media, from time to time, especially during the World Day Against Child Labour and Children's Day as celebrated in India.

Convergence

As poverty is the primary cause of such a social evil, the educational rehabilitation of such children is further complemented by the economic rehabilitation of the families of child labour through the convergence approach so that the child labour and their families are covered under the benefits of the schemes of various Ministries/ Departments of the Government of India like Human Resource Development, Women and Child Development. Urban Housing and Rural Poverty Alleviation, Rural Development as well as Panchayati Raj institutions. Convergence with the Railways is also in the offing to prevent migration/trafficking of children for work.

Protocol on Trafficked and Migrant Child Labour

Ministry of Labour and Employments is taking number of steps for rescue, safe repatriation and rehabilitation of migrant and trafficked child labour. Towards this

end, a high level Committee was constituted under the Chairpersonship of the Secretary (L&E) with representatives from various Ministries of the Government of India and State Labour Departments and NGOs. A detailed protocol for prevention, rescue, repatriation, rehabilitation and re-integration of migrant and trafficked child labour has been issued as a guideline to be followed by the State Governments. Workshops have also been held to sensitize the various stakeholders, including officials of State Governments.

Impact of the Right to Education Act on Child Labour

The Right to Compulsory and Free Education Act, 2009, has taken effect from 1st April 2010, and as a result our efforts to eliminate child labour are expected to receive a big boost. Children who should have been in classrooms but are instead in the workplace will find their rightful place in schools. While it is true that poverty may still force many parents to think of sending their children to work, it is expected that the constitutional obligation of educating our children combined with social schemes like mid-day meals in schools and rural employment guarantee schemes will have a positive impact on eradicating many social evils including child labour.

International Cooperation

A new Project named "Converging Against Child Labour : Support for India's Model" with funding from the Department of Labour, Government of USA, has been approved by the Government of India for developing of convergence based model, wherein ILO is working with the Ministry for developing these models in ten identified districts in five States of Bihar, Jharkhand, Gujarat, Madhya Pradesh and Orissa. The Project was formally launched by Shri Mallikarjun Kharge, Hon'ble Union Minister of Labour and Employment on 31 July, 2010 at Bhubaneswar.

In addition, Government is also implementing some other international projects for child labour elimination in association with ILO, viz. one in Karnataka, funded by the Government of Italy and another in Andhra Pradesh, funded by DFID.

A SAARC Regional Workshop on child labour was held in New Delhi on 22-23 June, 2009, to share experiences in tackling the problem of child labour in the region. The workshop was fruitful in the sense that the member countries could get a firsthand knowledge of the prevailing situations in smaller countries like Bhutan, Nepal and Afghanistan.

WOMEN LABOUR

Women constitute a significant part of the work force of India but they lag behind men in terms of level and quality of employment. The Census of India (2001) has registered 25.60 per cent of female population as workers numbering 127.22 million in absolute terms out of a total female population of 496 million. The majority of women workers are employed in the rural areas. Amongst rural women workers, 87 per cent are employed in agriculture as labourers and cultivators. Amongst the women workers in the urban areas, 80 per cent are employed in unorganized sectors like household industries, petty trades and services, building and construction, etc. The employment of women in the organized sector (both public and private sectors) as on 31.03.2002 was about 4.935 million. This constitutes 17.8 per cent of the total organized sector employment in the country. The distribution of women employees in major industries reveals that community, social and personal services sectors continued to absorb the majority of women employees. The lowest employment of women was

noticed in electricity, gas and water sectors. The main focus of the policies of the Government with regard to women labour has been to remove the handicaps under which they work, to improve their wages and working conditions, to enhance their skills and to open up better employment opportunities for them. A separate cell, namely, Women Labour Cell is functioning in the Ministry of Labour and Employment to address these problems. The Equal Remuneration Act, 1976, is a protective and anti-exploitative legislation, which was enacted to protect and safeguard the interest of women workers at the workplaces. The Equal Remuneration Act, 1976 stipulates payment of equal remuneration to men and women workers for the same work or work of a similar nature.

The Act also prohibits any gender discrimination in recruitment and service conditions. Under the Act, a Committee has been set up at the Centre, to advise the Government on providing increasing employment opportunities for women and generally reviewing the steps taken for effective implementation of the Act. The State Governments and Union Territory Administrations have also set up similar Committees. The Central Advisory Committee at the National level and the Advisory Committees at the State level along with competent authorities; oversee the process of implementation of the Equal Remuneration Act, 1976. Further, the Women Cell in the Ministry is also administering a Grants-in-Aid Scheme for the welfare of women labour. This Scheme is implemented through voluntary organizations that are provided grants-in-aid for running projects for awareness generation among women workers with a view to educate them about their rights, women related schemes and programmes, etc. being implemented by Central/State governments. It is proposed to enhance the outlay to ₹ 270 lakh during the 11th Plan from the approved 10th Plan outlay of ₹ 245 lakh for providing Grants-in-aid.

The Supreme Court of India in its landmark judgment dated 13 August, 1997, in the matter of Visakha and others vs. the State of Rajasthan and others, laid down detailed guidelines/norms for prevention of sexual harassment of women workers at workplaces. These guidelines have the force of law under Article 141 of the Constitution. The Government has taken up a number of initiatives to give effect to the guidelines laid down by the Supreme Court. These include circulation of the guidelines for action as indicated therein to all Secretaries to the Government of India/Chief Secretaries of the State Governments/Union Territories, Heads of Central Public Sector Undertakings and employees/employers organisations. Conduct Rules applicable to Government employees and officers of All India Services have been amended to incorporate the Supreme Court guidelines. To make the guidelines applicable to employees in the private sector, the Industrial Employment (Standing Orders) Act, 1946 has also been amended suitably.

BONDED LABOUR

The system of debt bondage in India is an outcome of certain categories of indebtedness, which have been prevailing for a long time involving certain economically exploited, helpless and weaker sections of society.

The system originated from the uneven social structure characterized by feudal and semi-feudal conditions. The issue of 'bonded labour' came to forefront in national politics, when it was included in the old 20-Point Programme in 1975. To implement this, Bonded Labour System (Abolition) Ordinance was promulgated. This was later replaced by the Bonded Labour System (Abolition) Act, 1976. It freed unilaterally all the bonded labourers from bondage with simultaneous liquidation of their debts.

The district and sub-divisional magistrates have been entrusted with certain duties/responsibilities towards implementation of statutory provisions. The Act also provides for constitution of Vigilance Committees at the district and sub-divisional level for implementation of the provisions of the law. The Act provides for imprisonment up to three years and fine up to ₹ 2, 000 whoever compels any person to render any bonded labour and whoever advances any bonded debt. Under the Bonded Labour System (Abolition) Act, 1976 identification and release of bonded labourers and rehabilitation of freed bonded labourers is the direct responsibility with the State Government concerned.

The issue of bonded labour has been discussed in the Supreme Court/High Court in the form of Public Interest Litigations. The Supreme Court has directed that the National Human Rights Commission (NHRC) should be involved in dealing with the issue of bonded labour.

The Centrally Sponsored Scheme was modified in May 2000. In the modified scheme, besides increasing the rehabilitation assistance from ₹ 10,000/- to ₹ 20,000/- per bonded labour, provision has also been made for giving Central grants to the States/U.Ts. for awareness generation, survey of bonded labour and evaluatory studies. As per the modified scheme, ₹ 10 lakhs are provided per annum to State Government for creating awareness generation, ₹ 2 lakh per district for survey of bonded labourers once in 3 years in a district and ₹ 5 lakhs per annum for conducting evaluatory studies. So far 2, 68,136 identified bonded labourers have been rehabilitated with the Central assistance of ₹ 7015.46 lakhs.

UNORGANISED SECTOR

As per the Unorganised Workers' Social Security Act, 2008, "unorganised workers" means a home based worker, self-employed worker or a wage worker in the unorganised sector and includes a worker in the organised sector who is not covered by any of the Acts mentioned in Schedule-II of Act. The "unorganised sector" means an enterprise owned by individuals or self-employed workers and engaged in the production or sale of goods or providing service of any kind whatsoever, and where the enterprise employs workers, the number of such workers is less than ten.

As per the survey carried out by the National Sample Survey Organisation in the year 2004-2005, the total employment, in both organised and unorganised sectors in the country was of the order of 45.9 crore, i.e., around 2.6 crore in the organised sector and the balance 43.3 crore workers in the unorganised sector.

In order to take care of the social security and welfare of unorganised workers, two-pronged strategy, i.e., legislative measures, and, implementation of welfare schemes and programmes have been followed so far. The legislative measures include the Minimum Wages Act, 1948, the Workmen's Compensation Act, 1923, the Maternity Benefit Act, 1961, the Bonded Labour System (Abolition) Act, 1976, the Contract Labour (Regulation and Abolition) Act, 1970, the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979, the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996, and the Building and Constructs in Workers Welfare (Cess) Act, 1996 etc.

The Government has set up Welfare Funds for providing welfare measures to the beedi, non-coal mine and cine workers. The Funds are used to provide financial assistance to these workers for education of their children, recreation, medical and health facilities, construction of houses, etc. The Building and Other Construction

Workers (Regulation of Employment and Conditions of Service) Act, 1996 also has provision for setting up of welfare Board/Fund by every State Government to provide welfare/social security measures to the construction workers. Some States like Kerala, have constituted welfare funds for specific categories of workers in the unorganised sector.

The Government enacted the Unorganised Workers' Social Security Act, 2008. The Act provides for constitution of National Social Security Board at the Central level and State Social Security Boards at the State level which shall recommend formulation of social security schemes for unorganised workers. The National Board shall recommend social security schemes viz., life and disability cover, health and maternity benefits; old age protection, and any other benefit as may be determined by the Central Government. The State level Boards shall recommend welfare schemes viz. provident fund, employment injury benefit, housing, educational schemes for children, skill upgradation of workers, funeral assistance and old age homes.

The salient features of the Act are as under:

- Section (2) provides for the definitions, including those relating to unorganised worker, self-employed and wage worker.
- Section 3 (1) provides for formulation of schemes by the Central Government for different sections of unorganised workers on matters relating to (a) life and disability cover; (b) health and maternity benefits; (c) old age protection (d) any other benefit as may be determined by the Central Government.
- Section 3 (4) provides formulation of schemes relating to provident fund, employment injury benefits, housing, educational schemes for children, skill upgradation, funeral assistance and old age homes by the State Governments.
- Section 4 relates to funding of the schemes formulated by Central Government.
- Section 5 envisages constitution of National Social Security Board under the chairmanship of Union Minister for Labour and Employment with Member Secretary and 34 nominated members representing Members of Parliament, unorganized workers, employers of unorganized workers, civil society, Central Ministries and State Governments.
- Provision for adequate representation to persons belonging to the Scheduled Castes, the Scheduled Tribes, the Minorities and Women.
- The functions of National Board, inter-alia, include: to recommend to the Central Government suitable schemes for different sections of unorganised workers; monitor the implementation of schemes and advise the Central Government on matters arising out of the administration of the Act.
- Section 6 has provision for constitution of similar Boards at the State level.
- Section 7 relates to funding pattern of the schemes formulated by the State Governments.
- Section 8 prescribes record keeping functions by the District Administration. For this purpose, the State Government may direct (a) the District Panchayat in rural areas; and (b) the Urban Local Bodies in urban areas to perform such functions.
- Section 9 provides for setting up of constitution of Workers' Facilitation

Centre to (a) disseminate information on social security schemes available to them (ii) facilitate the workers to obtain registration from district administration and enrolment of unorganized workers.

- Section 10 provides for eligibility criteria for registration as also the procedure for registration under the Act.
- Sections 11-17 contain miscellaneous provisions for implementing the Act.

The Unorganised Workers Social Security Act, 2008 has been notified in the Gazette and the Unorganised Workers Social Security Rules, 2009 under the Act have been framed and notified. The Act has since been enforced with effect from 16 May, 2009.

The National Social Security Board was constituted on 18 August, 2009 and met twice to consider formulation of social security schemes for unorganised workers. The Board recommended that social security schemes, viz Rashtriya Swasthya Bima Yojana (RSBY) providing health and maternity benefits, Janshree Bima Yojana (JBY) providing for death and disability cover and Indira Gandhi National Old Age Pension Scheme (IGNOAPS) providing old age pension may be extended to certain categories of unorganised workers.

A Task Force was constituted on Domestic Workers which has since submitted its report. The following Task Force have also been set up :

- A Task Force for suggesting schemes to provide social security to Rickshaw Pullers, street vendors, rag pickers, etc.
- A Task Force to suggest a scheme for Pension/Provident Fund for unorganised workers.

LABOUR STATISTICS

The Labour Bureau, Chandigarh/Shimla is engaged in collection, compilation, analysis and dissemination of labour statistics at All-India level on different facets of labour, such as, employment, wages and earnings, strikes and lockouts, absenteeism, labour turnover, labour cost, working and living conditions of workers, etc., both in organized and unorganized sector of industries. It also constructs, maintains and publishes Consumer Price Index Numbers for: (i) Industrial Workers (Base 2001=100), (ii) Rural Labourers (Base 1986-87=100) and (iii) Agricultural Labourers (Base 1986-87=100). Labour Bureau also compiles Retail Price Indices of 31 essential commodities for both rural and urban centres and Wage Rate Indices for 21 industries. It imparts training to price collectors, entrepreneurs or their representatives filing statutory returns under various Labour Act. IES/ISS probationers and international students under ISEC programme. The Labour Bureau, with the approval of the Government, has released on 9 March, 2006 the new Series of CPI-IW with effect from January, 2006. The new Series is an improvement over the old Series (1982=100) as more centres, markets and consumption items are covered. An Index Review Committee under the Chairmanship of Prof. G.K. Chaddha was constituted to review various aspects of the CPI-IW. The Committee submitted its report in April, 2009.

Quarterly Quick Employment Surveys

Labour Bureau is conducting quarterly quick employment surveys in the selected sectors to assess the impact of economic slowdown on employment in India since

January, 2009. This was a special assignment/survey carried out by Labour Bureau as per Ministry of Labour and Employment's directive received in December, 2008. Till now, six such surveys have been conducted in the sectors supposed to be badly affected by the slowdown.

The first quarterly survey was conducted in the month of January 2009 to study the impact on employment during the quarter October-December, 2008. The survey was conducted in seven important sectors of the economy viz. Textiles, Metals, Automobiles, Gems and Jewellery, Transport, IT/BPO and Mining. In the survey a sample of 2,581 units was covered at 20 centres spread across eleven States/UTs. About half a million workers lost their jobs during the quarter in the sectors studied.

The second quarterly survey was conducted in the month of April, 2009 to study the impact on employment during the months Jan-March, 2009. In this survey two additional sectors namely leather and handloom/power loom were also covered whereas the mining sector covered during the first survey was excluded. A sample of 3,192 units from 21 centres spread across eleven States/UTs was covered during the survey. More than a quarter million jobs were observed to be added during the quarter.

The third quarterly survey was conducted in the month of July, 2009 to study the employment situation during the quarter April-June, 2009, by revisiting the same sample units covered in the second survey. The objective of revisit was to assess the change in the direction and rate of change in the employment during April-June, 2009 over March, 2009. All the sample units were revisited, however, information was collected from 3,003 sample units. Employment during this quarter declined by 1.31 lakh.

The fourth quarterly quick employment survey was conducted in the month of October, 2009 to assess the employment situation during the period from July-September, 2009. In this survey also, the units covered in the previous quarterly surveys were revisited to assess the change in the employment trends. All the 3,003 sample units covered in the previous quarterly survey were revisited; however, information was collected from 2,873 units as the information from the other remaining units could not be collected during the reference period.

Employment-Unemployment Survey

Over the years, the main source of data on Employment-Unemployment has been the quinquennial surveys being conducted by the National Sample Survey Organisation (NSSO). With the integration of the World economies, the need for data on important indicators of the economy at shorter regular intervals has become of paramount importance. To fill this data gap, Labour Bureau has initiated conducting of Employment - Unemployment Survey. The survey is a unique endeavour to collect data on Employment and Unemployment indicators which will be an annual activity. The field work of the first such survey covering the period April, 2009 to March, 2010 was launched in April, 2010.

Labour Research

V.V. Giri National Labour Institute, NOIDA (Uttar Pradesh) is an autonomous body engaged in research pertaining to labour and training of labour administrators, trade unions, public sector managers and other government functionaries concerned with labour. Seminars, workshops and lectures are organized on specific issues from time to time.

Research occupies a primary place in the activities of the Institute. It comprises a broad spectrum of labour related issues and problems, in both the organized and unorganized sectors. Issues of topical concern and relevance of policy are taken up for research. The Institute continues to place greater emphasis on the disadvantaged groups, such as, child labour, women labour and rural labour.

Research activities also explore the basic needs of different groups of trainees, such as trade union leaders and organizers in both organized and unorganized sectors, managers of public and private sectors, labour administrators and volunteers of non-governmental organisations. There are ten Centres which carry out studies on the major themes related to research. Each Centre is guided by a Research Advisory Group, which consists of experts in the respective areas.

The Institute undertakes research projects in the areas of :

- labour market;
- employment and regulations;
- agrarian relations and rural labour;
- documenting and archiving labour history;
- child labour;
- health issues involving labour;
- issues of labour and employment in the North Eastern Region;
- gender aspects of labour market;
- climate change and its impact on labour.

The Institute has also set up a new centre for forging professional collaboration with major international institutes working in the area of labour. Recently, two new centres namely; Centre for North East and Centre for Climate Change and Labour have also been started to have focused attention on the specific issues related to these Centres. The Institute has signed MoU with national Institute of Labour Studies, Sri Lanka and Korea Labour Institute.

For the future, the V.V. Giri National Labour Institute proposes to bring labour and labour relations as the central feature in development agenda by addressing issues of transformation in the world of work, disseminating knowledge, skills and attitudes to major social partners and stakeholders concerned with labour and employment undertaking research studies and training interventions of world class standards and building understanding and partnerships with globally respected institutions involved with labour.

WORKERS' EDUCATION

The Central Board for Workers' Education (CBWE) was established in 1958 by the Ministry of Labour and Employment, Government of India to implement the workers' education scheme at national, regional and unit/village levels for the workers from organized, unorganized and rural sectors. Supervisory and managerial cadres are also covered through joint educational programmes. The Board's training programmes aim at creating awareness and education among the workforce for their effective participation in the socio-economic development of the country.

The Board has its headquarters at Nagpur, with a network of 50 Regional and 9 Sub-Regional Directorates spread throughout the country. The five Zonal

Directorates at Delhi, Guwahati, Kolkata, Chennai and Mumbai monitor the activities of the Regional Directorates within their respective Zone. The Board had set up its Indian Institute of Workers Education, an apex training Institute at Mumbai to conduct national level training programmes for the activists of Central Trade Union Organisations/Federations besides in-house training programmes for the Board's officials. The Board has so far conducted 3,99,988 training programmes and has trained 1,15,14,160 workers at various levels till 31 March, 2010.

To generate awareness among the informal sector workers about various welfare schemes of the Central Government, the Board conducts different programmes ranging from 1 to 4 days, through which detailed information of the relevant schemes are given to the participants besides extending the necessary help as and when required by them.

WORKERS' SAFETY

Safety, Health and Welfare of Workers in Factories

The Factories Act, 1948 is the principal legislation for regulating various aspects relating to safety, health and welfare of workers employed in factories. This Act is a Central enactment, which aims at protecting workers employed in factories from industrial and occupational hazards. State governments and Union Territory Administrations frame rules under the Act and enforce provisions of the Act and rules through their factory inspectorate. The Directorate General, Factory Advice Service and Labour Institute (DGFASLI), Mumbai, an attached office of the Ministry of Labour and Employment, renders technical advice to the States/Union Territories with regard to administration and enforcement of the Factories Act, 1948. With five regional labour institutes at Mumbai, Kolkata, Kanpur, Chennai and Faridabad under its control, the DGFASLI also undertakes support research facilities and carries out promotional activities through education and training in matters concerning occupational safety and health. The Directorate General also reviews the position regarding implementation and enforcement of the Act.

Prescribing a 48-hour week for adult workers, the Factories Act forbids employment of children under 14 years of age in any factory. Minimum standards of lighting, ventilation, safety and welfare services, which employers must provide in their factories, have also been laid down. Factories employing over 30 women workers are required to provide a crèche for their children shelters, rest-rooms and lunch-rooms are required to be provided by factories employing over 250 workers. Factories with 250 workers or more have to appoint welfare officers. The Factories Act was amended in 1987 in order to impose a general duty on employers to ensure health and safety of workers and on designers, manufacturers, importers and suppliers to ensure that articles designed, manufactured, etc., are without risk to the health and safety of workers. A new chapter for regulating safety and health aspect in hazardous industries was incorporated in the Act.

Safety in Ports and Docks

Provisions relating to safety, health and welfare of workers employed in docks are contained in the Dock Workers (Safety, Health and Welfare) Act, 1986 and rules and regulations framed thereunder. The Act came into force on 15 April 1987. Enforcement of this Act in all the major ports is the responsibility of the Ministry of Labour and Employment and this responsibility is discharged through the DGFASLI, Mumbai. The DGFASLI, being the Chief Inspector of Docks is also entrusted with the

responsibility of enforcing in major ports the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 framed under the Environment (Protection) Act, 1986.

Safety in Mines

Provisions for safety, health and welfare of workers employed in mines are contained in the Mines Act, 1952 and rules and regulations framed thereunder. These provisions are enforced by the Ministry of Labour and Employment through the Directorate General of Mines Safety. The Directorate General, with its headquarters at Dhanbad and its zonal, regional and sub-regional offices spread all over the mining areas in the country undertakes its functions, inspection of mines, investigation of all fatal accidents and also certain serious accidents depending upon the gravity of the situation, grant of statutory permission, exemptions and relaxations in respect of various mining operations, approval of mines safety equipment, appliances and material, conduct examinations for grant of statutory competency certificate, safety promotional incentives including organization of national awards and national safety conference, etc.

NATIONAL SAFETY COUNCIL

The National Safety Council was set up in 1966 to promote safety consciousness among workers to prevent accidents, minimize dangers and mitigate human suffering, arrange programmes, lectures and conferences on safety, conduct educational campaigns to arouse consciousness among employers and workers and collect educational and informative data, etc. National Safety Day is celebrated on March 4 every year to mark the foundation day of the National Safety Council.

AWARDS

Prime Minister's Shram Awards

Prime Minister's Shram Awards are given to workmen working in the departmental undertakings and the public sector undertakings of the Central Government and State Governments in recognition of their outstanding contribution in the field of productivity and for showing exemplary zeal and enthusiasm in the discharge of their duties. These awards are also given to the workmen working in the manufacturing units in the private sector employing 500 or more workers. The awards, in order of precedence, are: Shram Ratna, Shram Bhushan, Shram Vir/Shram Veerangana and Shram Shree/Shram Devi. The awards carry presentation of a sanad and cash prize of ₹ 2 lakhs, ₹ 1 lakh, ₹ 60,000 and ₹ 40,000 respectively. The total number of awards is 33.

National Safety Awards

To give recognition to good safety performance on the part of the industrial undertakings and to stimulate and maintain the interest of both management and workers in accident prevention programmes, the Government instituted in 1965 the National Safety Awards. This is applicable to factories, docks and Nuclear Power Projects and Nuclear Power Stations.

The National Safety Awards for mines were instituted in 1983. It is meant for giving recognition to outstanding safety performances of mines of national level, which comes within the purview of the Mines Act, 1952. There are 34 awards—17 winners and 17 runners-up, which are given to the management.

Vishwakarma Rashtriya Puraskar

Shram Vir Awards, now known as Vishwakarma Rashtriya Puraskar were instituted in 1965. These are meant for workers of factories, mines, plantations and docks, and are given to them in recognition of their meritorious performance, which leads to high productivity or economy or higher efficiency. There are a total of twenty-eight awards in three classes, i.e. Class-A – 5 awards, Class-B – 8 awards and Class-C – 15 awards and carry cash prizes of ₹ 75,000 ₹ 50,000 and ₹ 25,000 each respectively.

INDUSTRIAL RELATIONS

The Industrial Disputes Act, 1947

The Industrial Disputes (Amendment) Bill, 2009 was introduced in the Rajya Sabha on 26 February 2009. After its introduction, the Bill was referred to the Standing Committee on Labour. The Standing Committee has submitted its report on 9 December, 2009. The Standing Committee made certain recommendations for further modification of the amendments proposed in the Bill. The recommendations have been examined by the Ministry of Labour and Employment and Ministry has decided to accept some of the recommendations.

Necessary official amendments to the Industrial Disputes have been moved in Rajya Sabha. The Industrial Disputes (Amendment) Bill, 2009 seeks:

- Amendment of the term "appropriate Government" defined under section 2(a) of the Act to amplify the existing definition;
- Enhancement of wage ceiling of a workman working in a supervisory capacity from one thousand six hundred rupees per month to ten thousand rupees per month under section 2(s) of the Act.
- Direct access for the workman to the Labour Court or Tribunal in case of disputes arising out of section 2A of the Act;
- Expanding the scope of qualifications of Presiding Officers of Labour Courts or Tribunals under sections 7 and 7A of the Act;
- Establishment of Grievance Redressal Machinery in every Industrial Establishment employing twenty or more workmen for the resolution of disputes arising out of individual grievances;
- Empowering the Labour Court or Tribunal to execute the awards, orders of settlements arrived at by Labour Court or Tribunals as a decree.
- To empower Government to make rules to decide and review the salaries and allowances and other terms and conditions for appointment of Presiding Officers.

The Bill has since been passed by Both Houses of Parliament.

The Trade Union Act, 1926

The Trade Union Act, 1926 provides for registration of trade unions of employers and workers, and, in certain respects, it defines the law relating to registered trade unions. It confers legal and corporate status on registered trade unions. The Trade Union Act, 1926 is administered by the concerned State Governments.

The Trade Union Act, 1926 has been amended and the following amendments have been enforced from 9th January, 2002: No trade union of workmen shall be registered unless at least 10 per cent or 100, whichever is less, of workmen engaged or

employed in the establishment or industry with which it is connected are the members of such trade union on the date of making an application for registration. In no case, a union shall be registered without a minimum strength of 7 members; a registered trade union of workmen shall, at all times, continue to have not less than 10 per cent or 100 of the workmen, whichever is less, subject to a minimum of 7 persons engaged or employed in the establishment or industry with which it is connected, as its members; a provision for filing an appeal before the industrial tribunal/labour court in case of non-registration/restoration of registration has been provided; all office bearers of a registered trade union, except not more than one third of the total number of office bearers or five, whichever is less, shall be persons actually engaged or employed in the establishment or industry with which the trade union is connected; Minimum rate of subscription by members of the trade union has been revised as one rupee per annum for rural workers, three rupees per annum for workers in other unorganized sectors and 12 rupees per annum in all other cases.

The Plantations Labour Act, 1951

The Plantations Labour Act, 1951 provides for welfare of plantation labourers and regulates their conditions of work. The Plantations Labour Act, 1951 has been amended and the Plantations Labour (Amendment) Act, 2010 has been enforced w.e.f. 7 June 2010. By this amendment, the definition of 'employer' has been made more specific so as to suitably fix responsibility. The definition of 'worker' has been enlarged by enhancing wage ceiling from ₹ 750/- to ₹ 10,000/- per month. For the first time, contract workers who have worked for more than 60 days in a year have also been included. Definition of 'family' has been made gender neutral to remove the distinction between the family of a male and the female worker for availing dependent's benefits.

A totally new Chapter (Chapter IV-A) has been incorporated to cover all aspects of safety and occupational health of workers working in the plantations. The amended Act also prohibits employment of children below 14 years and ensures medical facilities for plantation labourers by giving the power and responsibility to the State Government to provide the same in case of default by employers and recover the costs from them. A new Section (Section 32-C) has been inserted to prescribe the manner in which compensation in case of accident shall be registered. The penal provisions have been made more stringent for effective implementation. Further, the amended Act provides for any worker or an office bearer of the trade union of which such worker is a member, for filing a complaint under this Act with a provision for providing immunity to the complainant.

RASHTRIYA SWASTHYA BIMA YOJANA

The Government has launched the National Health Insurance Scheme namely, the 'Rashtriya Swasthya Bima Yojana' for BPL families (a unit of five) in unorganised sector on 1 October, 2007. The scheme has become operational w.e.f. 01.04.2008. As on 31.07.2008, 1.74 crore BPL Families have been covered under the scheme in 22 states where the scheme is being implemented. The entire BPL families are proposed to be covered in by 2012-13. The scheme provides for smart card based cashless insurance cover of ₹ 30,000/- per annum per family to the beneficiary. The premium will be borne by Central Government and State Government in the ratio 75:25. In case of North Eastern States and Jammu and Kashmir, the premium will be in the ratio of 90:10. The cost of smart card will be borne by the Central Government. The beneficiary would pay ₹ 30/- per annum as registration/renewal fee.

The benefits under the scheme include:

- Health Insurance cover would be ₹ 30,000/- per family per annum on a family floater basis.
- Cashless attendance to all covered ailments
- Hospitalization expenses, taking care of most common illnesses including maternity benefits.
- All pre-existing diseases to be covered.

Transportation costs (actual with maximum limit of ₹ 100/- per visit) within an overall limit of ₹1000/- within the limit of ₹ 30,000/-

INDUSTRIAL TRIPARTITE COMMITTEES

The Industrial Tripartite Committees have been constituted with the view to promote the spirit of tripartism. These tripartite bodies aim at deliberating on the industry-specific problems related to workers in that particular industry. These Committees are non-statutory and ad-hoc and their meetings are convened as and when required. At present, there are eight Industrial Tripartite Committees, one each for engineering, electricity generation and distribution, road transport, chemical, sugar industry, cotton textiles, jute industry and plantation.

SOCIAL SECURITY

The Workmen's Compensation Act, 1923

A beginning was made in social security with the passing of the Workmen's Compensation Act, 1923. The Act provides for payment of compensation to workmen and their dependents in case of injury and accident (including certain occupational diseases) arising out of and in the course of employment and resulting in disablement or death. The Act applies to railway servants and persons employed in any such capacity as is specified in Schedule II of the Act. It includes persons employed in factories, mines, plantation, mechanically propelled vehicles, construction works and certain other hazardous occupations. Minimum rates of compensation for permanent total disablement and death are fixed at ₹ 1,40,000 and ₹ 1,20,000 respectively. Maximum amount for death and permanent total disablement can go up to ₹ 9.14 lakh and ₹ 10.97 lakh respectively depending on age and wages of workmen.

The Act has now become "The Employees' Compensation Act, 1923" by "the Workmen's Compensation (Amendment) Act, 2009" dated the 23 December, 2009.

The Maternity Benefit Act, 1961

The Maternity Benefit Act, 1961 is a piece of social legislation enacted to promote the welfare of working women. The Act prohibits the working of pregnant women for a specified period before and after delivery. It also provides for maternity leave and payment of certain monetary benefits to women workers subject to fulfillment of certain conditions during the period when they are out of employment on account of pregnancy. The services of a woman worker cannot be terminated during the period of their absence on account of pregnancy except for gross misconduct. Maximum period for which a woman can get maternity benefit is twelve weeks. Of this, six weeks must be taken prior to the date of delivery of the child and six weeks immediately following that date.

The Act has been amended in 2008 which has empowered the Central Government to enhance the medical bonus within every three years, by notification in the Official Gazette subject to the maximum of ₹ 20,000/- The medical bonus which was increased from ₹ 250/- to ₹ 1,000/- at the time of amendment has been increased to ₹ 2,500/- by Gazette Notification dated 11 August, 2008.

The Employees State Insurance Act, 1948

The Employees' State Insurance Act, 1948 is applicable to non-seasonal factories using power and employing 10 or more persons and non-power using factories employing 20 or more persons. It covers employees drawing wages not exceeding ₹ 15,000/- with effect from 1 May, 2010. The Act provides for medical care in kind and cash benefits payment in the contingency of sickness, maternity and employment injury and pension for dependents in the event of death of a worker because of employment injury. Full medical care including hospitalization is also being progressively made available to members of the family of the insured persons.

Under "Rajiv Gandhi Shramik Kalyan Yojana", which has been introduced w.e.f. 1 April, 2005, unemployment allowance is paid to the insured person for a maximum period of twelve months (w.e.f. 1 February 2009) who has been rendered unemployed involuntarily on account of closure of factory/establishment, retrenchment or permanent invalidity not less than 40 per cent arising out of non-employment injury, in case contribution in respect of him/her have been paid or payable for a minimum of three years (w.e.f. 1 September, 2009) prior to the loss of employment. The Insured Person and his/her family is also entitled to medical care for a period of twelve months (w.e.f. 1 February, 2009) from the date of unemployment. This allowance shall cease to be payable in case the Insured Persons get re-employment or attains the age of superannuation or 60 years, whichever is earlier. Daily rate of Unemployment Allowance is equivalent to the Standard Benefit Rate corresponding to the average daily wages drawn by the IP/IW during the last four completed contribution periods, immediately preceding the date of unemployment.

The main benefits provided under the Act are medical care for the entire family of the Insured Person (IP) cash compensation for loss of wages on account of sickness temporary and permanent disablement arising out of employment injury, periodical payments to dependants of Insured Person who dies due to employment injury, maternity benefit in cash to Insured Women and funeral expenses. As on March, 2009 there were 148 Hospitals, 42 Annexes, 27,739 beds including 2967 beds reserved in hospitals other than ESI Hospitals/Annexes, 1398 ESI dispensaries, 1678 clinics of Insured Medical Practitioners (IMPs) under the Scheme. The total number of IPs is 1.29 crore which also includes 22,64,076 Insured Women. The total number of beneficiaries under the scheme is 5.02 crore.

The Payment of Gratuity Act, 1972

The Payment of Gratuity Act, 1972 is applicable to factories, mines, oil fields, plantations, ports, railways, motor transport undertakings, companies, shops and other establishments. The Act provides for payment of gratuity at the rate of 15 days' wages for each completed year of service or part thereof in excess of six months subject to the maximum of ₹ 10 lakh. In case of seasonal establishments, gratuity is payable at the rate of seven days' wages for each season. The Act does not affect the right of an employee to receive better terms of gratuity under any award or agreement or contract with the employer.

The Employees Provident Funds And Miscellaneous Provisions Act, 1952

The Act seeks to provide the financial social security to the employees in the form of provident fund, pension and deposit-linked insurance. It extends to the whole of India except the State of Jammu and Kashmir. It applies to every establishment specified in the Schedule and in which twenty or more persons are employed. The Central Government by notification in the Office Gazette may specify, any other establishment employing twenty or more persons or class of such establishments, to which the Act shall apply. As on 31 March, 2010 the Act covers 186 specified industries/classes of establishments. Three schemes are framed under the Act viz, Employees Provident Fund Scheme 1952, Employees' Pension Scheme 1995 and Employees' Deposit Linked Insurance Scheme 1976. The Central Board of Trustees (CBT) through Employees Provident Fund Organisation (EPFO) administers the schemes. The CBT (EPF) is a tripartite body headed by the Hon'ble Union Minister of Labour and Employment. Employees Provident Fund Organisation (EPFO) has approximately 47 million subscriber enrolled in the three schemes. Employees Provident Fund Organisation provides various services ranging from collection of members' contribution from establishments to maintenance of members' accounts to actual disbursement of money under various defined benefit plans to members and their nominees.

Employees Provident Fund Scheme, 1952

The Employees Provident Fund Scheme, 1952 provides financial security to the employees in an establishment by providing a system of compulsory savings. The scheme covers the employees getting wages not exceeding ₹ 6500 per month. From 1 November 1990 onwards, the employee becomes the member of the Fund from the date of joining the factory/establishment. As on 31 March 2009, total number of establishments and factories covered were 573063 in which total membership was 470.72 lakh. During the year 2007-2008, 61024 new establishments and factories enrolling 5.15 lakh new members were brought under the purview of the Act.

The Employees' Pension Scheme, 1995

The Employees' Pension Scheme, 1995 came into effect from 16 November 1995 and aims at providing for economic sustenance during old age and survivorship coverage. The new entrants to the membership of Provident fund from 16 November 1995 will also acquire membership of the Scheme on compulsory basis. On the introduction of EPS 95 the erstwhile Employees' Family Pension Scheme, 1971 ceased to operate and its existing members compulsorily became the members of the new Scheme. A minimum of 10 years service is required for entitlement to pension. The total membership of EPS 95 as on 31 March 2009 is 445 lakh out of which net addition during 2008-2009 is 39 lakh. The quantum of pension payable to a member shall correspond to the sum of pensionable service (i.e. service after 16.11.95) benefit and past service (i.e. service before 16 November 1995) benefit. Total number of beneficiaries as on 31 March 2009 is 32.46 lakh. The Employees' Pension Scheme, 1995 provides the following benefits to members and their families:

- Monthly member Pension
- Permanent total disablement Pension
- Return of Capital
- Commutation up to 1/3rd of pension amount
- Widow/widower Pensioner

- Children Pension
- Orphan Pension
- Disabled Children
- Nominee Pension
- Pension to dependent Father/Mother

The Scheme is financed by diversion of 8.33 per cent of wages from employer's share of Provident Fund contribution and Central Government contribution at the rate of 1.16 per cent of the wage of the employee. The upper wage limit was raised from ₹ 5000 to ₹ 6500 with effect from 1st June 2001. As on 31 March 2009 the corpus stands at ₹ 108578.28 crore.

The Employees' Deposit Linked Insurance Scheme, 1976

Another important social security measure, Employees' Deposit Linked Insurance Scheme, 1976, was introduced for members of the Employees' Provident Fund and exempted Provident Funds with effect from 1st August, 1976. On the death of an employee, while in service, who is a member of the Employees' Provident Fund or of the exempted Provident Fund, the persons entitled to receive the provident fund accumulations would be paid an additional amount equal to the average balance in the provident fund account of the deceased during the preceding 12 months. The maximum amount of benefit payable under the Scheme is ₹ 1,00,000 and the employees do not have to make any contribution to it.

EMPLOYMENT AND TRAINING

To help the youth build their career, the Directorate General of Employment and Training (DGEandT) has evolved various training programmes. These are formulated within the national framework as far as possible and also in collaboration with foreign countries and financial assistance from GOI and World Bank etc.

Craftsmen Training : Industrial Training Institutes (ITIs) were set up all over the country to impart skills both in engineering and non-engineering trades to young men and women in the age group of 14 years and above. By 1 May 2010, 8085 (2134 Government ITIs and 5951 Private ITCs) such institutes with a total capacity of about 9.53 lakh were providing training to school leavers in the country. At present, 114 trades are covered under the scheme. The duration of the course varies from 6 months to 3 years for engineering and non-engineering trades. Educational qualifications for admission vary from eighth standard to 12th standard depending upon the trades. Some State Governments and Union Territories have introduced training in certain trades to meet the requirements of local industries under the jurisdiction of state councils for vocational training.

Apprenticeship Training Scheme : The Apprentices Act, 1961 makes it obligatory for employers in specified industries to engage apprentices for undergoing Apprenticeship Training, which varies from six months to four years. The training consists of basic training followed by on-the-job or shop floor training in accordance with standards prescribed by the Government in consultation with the Central Apprenticeship Council. Presently 188 trades are designated for trade apprentices and 2.90 lakhs seats are located in establishments in central and state public sector and private sector. The Act was amended in 1973 to include training of graduate and

diploma engineers as “Graduate” and “Technician” apprentices. The Act was again amended in 1986 to bring within its purview the training of 10+2 vocational stream as “Technician (Vocational)” apprentices. 122 subject fields have been designated for the category of graduate and technician apprentices and 122 for the category of technician (vocational) apprentices. The Act was again amended in 2008 w.r.t. reservation for candidates belonging to the OBCs, expenditure on related instructions and to provide flexibility in respect of the ratios prescribed for the apprenticeship seats are located for these categories.

Women’s Vocational Training Programme: Vocational training facilities for women in the country are organized through a network of 369 women industrial training institutes and 844 women wings in general ITIs/private WITIs with a seating capacity of about 51,804 under the control of State Governments.

National Council for Vocational Training has recommended that in general ITIs upto 30 per cent of the sanctioned seats may be reserved for women candidates. These seats could be filled up based on general reservation policy of each of the State/UT. Under the Vocational Training programme, managed directly by the Central Government and National Vocational Training Institute (NVTI) for Women, NOIDA as an apex centre, ten Regional Vocational Training Institutes (RVTIs) for Women at Mumbai, Bangalore, Thiruvananthapuram, Hisar, Kolkata, Tura, Allahabad, Indore, Vadodara and Jaipur have been set up with an intake capacity of 3764 in long term courses. Besides this, short-term courses are also organized as per availability of infrastructure facilities. Till March, 2010 about 75,107 women have been trained in these institutes since inception.

Craft Instructors Training: Advanced Training Institutes (ATIs) at Howrah, Mumbai, Kanpur, Ludhiana and Hyderabad and Central Training Institute for Instructors at Chennai were established in 1960s. The objective of the Craft Instructor Training is to train Instructors in the techniques of transferring hands-on skills, in order to train semi-skilled/skilled manpower for industry. Under the programme, Instructors from State Govt. ITIs and ITCs and Training Centres established by industries under the Apprentices Act are provided training. Training in 29 Engineering trades is offered in these institutes. Total seating capacity in the Engineering trades in operation in the above stated six Institutes is 1050.

The following type of Craft Instructor Training courses are offered at the above institutes for instructors of ITIs/ITCs:

- Trade Technology and Engineering Technology
- Training Methodology
- Refresher Courses for Advanced Modules of Multi Skill Courses.
- IT-Literacy courses
- Module on Quality tools and Quality concepts.

Under the World Bank Project, the infrastructures available in these institutes, have been upgraded to impart world class training to the instructors. The Craft Instructor Training Programme provides modular training with flexible multi-exist points. The courses are accredited by NCVT.

Advanced Vocational Training Scheme

Advanced Vocational Training Scheme was launched in October 1977 for training of highly skilled workers and technicians in a variety of advanced and sophisticated skills not available for other vocational training programmes. Regular full time course of 2 to 12 weeks duration are offered under the scheme. The scheme was introduced in 6 advanced training institutes located at Mumbai, Kolkata, Hyderabad, Kanpur, Ludhiana, Chennai and 16 selected Industrial Training Institutes under 15 State Governments. These Institutes were modernized to conduct various advanced courses under the scheme as per requirement of the local industry.

NATIONAL INSTRUCTIONAL MEDIA INSTITUTE (NIMI)

National Instructional Media Institute (NIMI), Chennai has been set up to make available well prepared Instructional material for the use of the trainees and trainers in (i) Industrial training Institutes (ITIs) and (ii) Industries and establishments implementing the Apprenticeship training Programme. The Institute develops Instructional Media Packages (IMPs) comprising Written Instructional Material, Transparencies and Charts for different trades. So far, the following work has been done:-

- IMPs for 22 trades have been developed in English of which 174 books covering 22 trades have been published. Books for allied subjects and supporting materials have also been published.
- IMPs for 13 trades have been translated in Hindi of which 70 books have been published.
- IMPs for 12 trades have been translated in Tamil of which 55 books have been published.
- IMPs for 3 trades have been translated in Telugu of which 6 books have been published.
- IMPs for 6 trades have been translated in Kannada of which 26 books have been published.
- IMPs for 5 trades have been translated in Bengali of which 13 books have been published.
- IMPs for 8 trades have been translated in Marathi of which 26 books have been published.
- IMPs for 1 trade have been translated in Oriya of which 4 books have been published.

Centres of Excellence (CoE)

- IMPs for 10 Sectors been developed in English of which 31 books covering 7 Sectors have been published.
- 29 books covering 5 sectors are ready for publication.
- 70 titles have been translated into Hindi and 6 other regional languages.

Modular Employable Skills (MES)

- IMPs for 301 courses have been developed and published in English.
- Instructional material for 301 courses has been developed in English.
- Question Banks have been developed for 351 Courses.

- Terminal Competencies have been developed for 580 courses.
- Video Instructional Programme has been developed for 60 Courses.
- 53 titles have been translated and published into Hindi and other regional languages.
- 32 titles have been translated and published into Hindi and other regional languages.

Foremen Training/Supervisory Training

Training programmes for supervisors/foremen for industry are organized at two Foremen Training Institutes located at Bangalore and Jamshedpur.

CENTRAL STAFF TRAINING AND RESEARCH INSTITUTE

The Government in collaboration with the Government of Republic of Germany has set up the Central staff Training and Research Institute, Kolkata in 1968. The Institute has three wings - Training, Research and Development. The Training wing provides training to the executives and administrators of vocational and industrial training in the country. The Research wing conducts problem-oriented studies on different aspects of vocational training and the Development Wing is to develop and disseminate instructional material and, aid/ model for effective execution of industrial training.

INITIATIVES

Upgradation of 500 Existing ITIs into Centers of Excellence: The objective of the scheme is to upgrade the existing 100 ITIs into “Centers of Excellence (CoE)” for producing multi-skilled workforce of world standard. The highlights of the scheme are introduction of multiskilling course during the first year, followed by advanced/ specialized modular courses subsequently by adopting industry wise cluster approach, multi-entry and multi-exit provisions, and Public-Private-Partnership in the form of Institute Management Committee (IMC) to ensure greater and active involvement of industry in all aspects of training. Curricula of 219 modules covering 21 sectors have been developed and finalized.

As regards, upgradation of remaining 400 ITIs with World Bank assistance, the agreement with World Bank was signed on 2 November 2007 (made effective from 17 December 2007). World Bank is providing a credit amount of US \$280 million. So far, 400 ITIs have been taken up for upgradation. The remaining 1396 Government ITIs are being upgraded through Public Private Partnership (PPP).

Establishment of Industrial Training Institutes (ITIs) in North-Eastern States, Sikkim and Jammu and Kashmir: A hundred per cent centrally sponsored scheme for upgrading the 37 existing ITIs in the State of Jammu and Kashmir and for setting up of new Women ITI at Jammu was taken up during the financial year 2005-06. After the scheme is fully implemented, it would result in an increase of 1836 training seats in the State. A hundred per cent centrally sponsored scheme for the North Eastern states including Sikkim, with a total outlay of Rs.100 crores, for establishing 22 new ITIs and upgrading 35 existing ITIs has been completed. In addition, 3 ITIs - 2 in Sikkim and 1 in Assam are being established with an additional amount of ₹ 13.70 crores. This has resulted in doubling the seating capacity in ITIs from 7244 to 16,144.

UPGRADATION OF 1396 GOVERNMENT ITIs THROUGH PUBLIC PRIVATE PARTNERSHIP

A Scheme " Upgradation of 1396 Government ITIs through Public Private Partnership" has been formulated with a total outlay of ₹ 3550 crores (Rs. 3490 crore for upgradation

of 1396 Govt. ITIs with ₹ 2.5 crore per ITI and Rs 60 crore for management, monitoring and evaluation of the scheme) to improve the employment outcome of ITI graduates from the vocational training system, by making design and delivery of training more demand responsive.

Under the Scheme an Industry Partner is associated with each ITI to lead the process of upgradation. The Industry Partner is selected by the State Government in consultation with the Industry Associations. An Institute Management Committee (IMC) is constituted/ reconstituted for each selected ITI (it consists of Industry Partner or his representative, as the Chairperson, four members from local industry are nominated by the Industry Partner, five members are nominated by the State Government and Principal, ITI, as ex-officio member Secretary). The IMC is registered by the State Government as a Society under Societies Registration Act. The interest free loan of upto ₹ 2.5 crores is given by the Central Government directly to the IMC based on the Institute Development Plan (IDP) prepared under the leadership of Industry Partner. The IMC is given financial and academic autonomy to manage the affairs of the ITI. The IMC is also allowed to determine 20 per cent of the admissions in the ITI. The State Government will remain the owner of the ITI and will continue to regulate admissions and fees except 20 per cent of the admissions which are allowed to be determined by the IMC. The interest free loan shall be repayable with a moratorium of 10 years and thereafter the loan shall be payable in equal annual instalments over a period of 20 years. The IMC may generate revenue by running production/service centers, short terms courses, providing consultancy services, etc, National Implementation Cell and State Implementation Cell is set up at Central and State level to implement the Scheme. The Scheme is monitored by National Steering Committee and State Steering Committee at Central and State levels having adequate representation from Industry Associations. An amount of ₹ 2250 crore has been released @ ₹ 2.5 crore to each IMC Society of ITI as interest free loan for upgradation of 900 ITIs during 2007-08 and 2009-10. The third batch of 300 ITI is being taken up for upgradation during 2010-11.

SKILL DEVELOPMENT INITIATIVE

A new scheme – “Skill Development Initiative” for imparting vocational training/ testing of competencies to one million persons over a period of five years by imparting short-term training courses with an outlay of Rs.550 crore has been taken up.

The objectives of the scheme are:-

- To provide vocational training to school leavers, existing workers, ITI graduates, etc. to improve their employability by optimally utilizing the infrastructure available in Govt., private institutions and the Industry. Existing skills of the persons can also be tested and certified under this scheme.
- To build capacity in the area of development of competency standards, course curricula, learning material and assessment standards in the country.

Key features of the scheme

- Demand driven short term training courses based on Modular Employable Skills (MES) decided in consultation with industry. MES is the 'Minimum Skills set' which is sufficient for gainful employment.
- Central government facilitates and promotes training while industry, private sector and State Governments train the persons.

- Optimum utilization of existing infrastructure to make training cost effective.
- Flexible delivery mechanism (part time, weekends, full time, onsite/ offsite) to suit needs of various target groups.
- Different levels of programmes (Foundation level as well as skill upgradation) to meet demands of various target groups.
- The services of existing or retired faculty or guest faculty are utilized.
- Courses are available for persons having completed 5th standard.
- Testing and certification of skills acquired informally.
- Testing of skills of trainees by independent assessing bodies, which are not involved in training delivery, to ensure that it is done impartially.
- The essence of the scheme is in the certification that is nationally and internationally recognized.

ACTIVITIES UNDERTAKEN

- 1158 Modules for employable skills covering 52 sectors have been developed.
- 22 Assessing Bodies empanelled for conducting assessment.
- IL&FS have been appointed Consultant for development of Web based software for implementation, monitoring and evaluation of the scheme. M/S Hewlett Packard (HP) has been selected as vendor.
- More than 7,67,288 persons have been trained/ tested (since inception).
- 5882 Vocational Training Providers (VTPs) registered.
- Guidelines for selection of VTPs have been approved and circulated to State Governments for Implementation.

EMPLOYMENT

Employment in the organized sector, i.e., in all public sector and non-agricultural establishments employing 10 or more persons in private sector increased marginally from 272.76 lakh in March 2007 to 275.48 lakh in March 2008 recording an increase of 1 per cent. The increase in private sector employment during 2007-08 was 6.5 per cent.

NATIONAL EMPLOYMENT SERVICE

The National Employment Service (NES) continued to provide employment assistance to the job seekers with a network of 969 Employment Exchanges as on December 2009. The Employment Exchanges assist all employment seekers including special groups like handicapped, ex-servicemen, scheduled castes and scheduled tribes, women, etc. through placement against jobs notified by employers. NES also carries out other functions such as vocational guidance and employment counselling, coordination and dissemination of employment market information and conducts studies in the field of employment and occupational research with a view to generate data for framing employment and manpower policies.

Under the Employment Exchanges (Compulsory Notification of Vacancies), Act, 1959, it is obligatory for all establishments in public sector and such of those non-agricultural establishments in private sector which employ 25 or more workers to notify their vacancies (with certain exemptions) to Employment Exchanges and supply periodic information as prescribed in the Act and the rules framed there

under. Development of these programmes at the national level, particularly in the area of evolving common policies, laying down common standards and procedures, training of officers and evaluation of the programmes is the responsibility of the Central Government. The day-to-day administration of the Employment Exchanges on the other hand, rests with the State Governments/UT Administrations. There are 43 Special Employment Exchanges for physically handicapped. Twenty vocational rehabilitation centers provide a comprehensive package of rehabilitation services to the physically challenged, Vocational guidance: Vocational and Employment Counselling services are provided to youth (applicants without any experience) and adults (with specific work experience).

Such units were functioning in 392 Employment Exchanges as on September, 2009. In addition, University Employment Information and Guidance Bureaux are functioning in 82 Universities. These units assist applicants and youth in planning their career. A special scheme operates in 22 selected districts to motivate and guide job seekers to take up self-employment. Coaching-cum-Guidance Centers for Scheduled Castes and Scheduled Tribes provide registration guidance, pre-submission guidance, confidence building training, pre-recruitment training and special coaching in typing and shorthand to job-seekers. In addition, these centres also impart computer training through outsourcing to SC/ST job-seekers.

22 Mass Communication

THE Ministry of Information and Broadcasting, through the mass communication media consisting of radio, television, films, press and print publications, advertising and traditional modes of communication such as dance and drama, plays an effective role in helping people have access to free flow of information. The Ministry is involved in facilitating the entertainment needs of various age groups and focusing attention of the people on issues of national integrity, environmental protection, health care and family welfare, eradication of illiteracy and issues relating to women, children minority and other disadvantaged sections of the society. The Ministry is divided into 4 wings i.e. the Information Wing, the Broadcasting Wing, the Films Wings and the Integrated Finance Wing. The Ministry functions through its 13 media units/ attached and subordinate offices, six autonomous bodies and two PSUs.

The Information Wing under the Joint Secretary (Policy and Administration) handles policy matters of the print and press, media and publicity requirements of the Government. This Wing also looks after the general administration of the Ministry.

The Broadcasting Wing under Joint Secretary (Broadcasting) handles matters relating to the electronic media. It formulates policies and frames rules and regulations for this Sector, which includes public service broadcasting, operation of cable television, private television channels, FM and Community Radio, etc.

The Film Wing under Joint Secretary (Films) handles matters relating to the Film Sector. It is involved in the production and distribution of documentary films, development and promotional activities relating to the film industry including training, organization of film festivals, import and export regulations, etc.

The Integrated Finance Wing, under AS and FA looks after the financial aspects of the Ministry including budget, Plan Coordination and O and M activities. AS and FA is assisted by Economic Advisor.

PRASAR BHARATI

Prasar Bharati is the public service broadcaster in the country, with All India Radio and Doordarshan as its two constituents. It came into existence on 23 November 1997, with a mandate to organise and conduct public broadcasting services to inform, educate and entertain people and to ensure balanced development of broadcasting on radio and television.

The major objectives of the Prasar Bharati Corporation, as laid out in the Prasar Bharati Act, 1990, are as follows: i) Upholding the unity and integrity of the country and the values enshrined in the Constitution; ii) Promoting national integration, iii) Safeguarding citizen's rights and to be informed on all matters of public interest and presenting a fair and balanced flow of information; iv) Paying special attention to the fields of education and spread of literacy, agriculture, rural development, health and family welfare and science and technology; v) Creating awareness about women's issues and taking special steps to protect the interests of children, the aged and other vulnerable sections of society; vi) Providing adequate coverage to the diverse cultures, sports and games and youth affairs; vii) Promoting social justice, safeguarding the rights of working classes, minorities and tribal communities; and viii) Expanding

broadcasting facilities and promoting research and development in broadcast technology.

Headquartered in Delhi, the Corporation is governed by the Prasar Bharati Board, which comprises a Chairman, an Executive Member (also known as Chief Executive Officer), a Member Finance, a representative of the Ministry of Information and Broadcasting and Directors General of All India Radio and Doordarshan as ex-officio Members. The Chairman is a part-time member with a tenure of three years and holds office up to the age of 70 years. The Executive Member is a whole time member with a term of 5 years and holds office up to the age of 65 years. The Member (Finance) and the Member (Personnel) are whole-time members with a six-year tenure, subject to the age limit of 62 years.

ALL INDIA RADIO

Broadcasting started in India in 1927 with two privately owned transmitters at Mumbai and Kolkata, which were taken over by the Government in 1930. These were operating under the name "India Broadcasting Service" until 1936 when it was given the present name "All India Radio (AIR)". It also came to be known as "Akashwani" from 1957.

All India Radio informs, educates and entertains people through its programmes broadcast from various stations. It keeps the people all over the country informed about Government policies, plans, programmes and achievements through the medium of sound broadcasting by a variety of programmes on cultural, educational, scientific, health and hygiene, social and economic aspects. It also keeps the people in all parts of the country informed of the important events of topical interest. The AIR network comprises the national channel, regional stations, local radio stations, Vividh Bharati centres, FM stereo services and North-Eastern Services.

All India Radio is one of the largest broadcasting networks in the world. At the time of independence there were six radio stations and 18 transmitters, which covered 11 per cent population and 2.5 per cent area of the country. As in December 2009 the network comprises 233 stations and 375 transmitters, which provide radio coverage to 99.16 per cent of the population and reaches 91.82 per cent area of the country.

ORGANISATIONAL SET-UP

The Directorate General, All India Radio functions under the Prasar Bharati (Broadcasting Corporation of India). He/She is responsible for the overall administration and supervision of the entire AIR network. In the performance of his/her duties and functions, the Director General is assisted by the various wings namely Programme Wing, Engineering Wing, Administrative Wing, Security Wing, Audience Research Wing, etc.

News Services Division (NSD)

News Services Division works round the clock and puts out 647 bulletins daily for a total duration of about 56 hours in 90 languages/dialects in the Home, Regional, External and DTH Services, 314 news headlines on hourly basis are also being mounted on FM 'Rainbow' and other frequency channels from 41 AIR Stations. NSD also disseminates news through multiple modes like news on Phone, SMS, Electronic Display Board and website. Besides news bulletins, it also mounts 13 daily and 10 weekly news based programmes for a total duration of 6 hrs 49 minutes which focus on issues related to the common man like developmental initiatives taken by

the Government. It also broadcasts special programmes when Parliament is in session. Similarly, Regional News Units also mount 17 daily and 94 weekly programmes for a total duration of nearly 25 hrs, besides broadcasting special programmes when State Assemblies are in session.

NSD introduced two news bulletins in Hindi (1945-1950 hrs) and English (1950-1955 hrs.) from Air Itanagar in October 2009 to fulfil the information needs of the people in the border state of Arunachal Pradesh.

NSD also makes arrangement for the coverage of flagship programmes. Over 2265 items were covered in 2318 regional bulletins in different languages during 2009. RNUs also covered 304 programmes on the Flagship schemes of the Union Government. 698 national bulletins also carried the stories on Flagship programmes of the Central Government.

External Services Division

All India Radio entered the realm of external broadcasting shortly after the outbreak of the Second World War on 1 October 1939, when it started a service in a push to faraway listeners across what was then the country's North-West Frontier. Since then the External Services Division of AIR has been a vital link between India and the rest of the world, specially with those countries where the interests of India are intertwined because of Indian population staying in those countries. ESD ranks high among the External Radio networks of the world both in reach and range covering about 100 countries in 27 languages.

AIR through its external broadcasts aims to keep the overseas listeners in touch with the ethos of India. The languages in which AIR reaches its foreign audience are: English, French, Russian, Swahili, Arabic, Persian, Pushto, Dari, Baluchi, Sinhalese, Nepali, Tibetan, Chinese, Thai, Burmese, and Bhasha Indonesia. The services in Hindi, Tamil, Telugu, Malayalam and Gujarati are directed at overseas Indians, while those in Urdu, Punjabi, Sindhi, Saraikai, Kannada and Bengali are meant for listeners in the Indian subcontinent,

The broadcasts follow a composite pattern and generally comprise News bulletins, Commentaries, Current events and Review of the Indian Press. The dominant theme of all programmes in ESD is to present the reality of India as a strong secular, democratic republic, vibrant, forward looking and engaged in the task of rapid economic, industrial and technological progress. India's faith in non-violence, its commitment to restoration of human rights and international peace and its contributions to the creation of a new world economic order are frequently discussed.

Transcription and Programme Exchange Service of AIR

The Transcription Service was started on 3 April 1954 and entrusted with the main function of preparing transcription of speeches of all dignitaries with a special reference to the Prime Ministers and Presidents of the country. This office has various functional units namely Central Archives, Programme Exchange Units, Transcription of President/Prime Minister's Speeches, Central Tape Bank for AIR network, Refurbishing Unit, Commercial Release and Marketing Digital Sound Archives.

Archives Digital Library

A special project was launched to digitize all archival recordings in 2001 and the project was completed in 2005. By this Akashwani has become one of the major digital libraries in the broadcasting network with modern tape numbering system in

tune with the internationally accepted norms. Programme transferred into digital medium are approximately 15,900 hrs. There are about 5000 hrs of programmes in analog tapes that are to be transferred to the digitized format in the Second Phase of digitization.

Central Tape Bank

This Unit works as the banker of blank tapes to be supplied to the stations on their demand of programme material. With technological advancement, the tapes have been replaced by Compact Discs which are procured and used by the stations independently on their own. 75,000 tapes are in circulation among all AIR stations for the purpose of exchange of the programmes. The bank supplies blank tapes to the new stations before their commission.

Audience Research

AIR has been the pioneer in this field. It has a wide network of Audience Research Units across the country operational since 1946. It provides programme feedback to programme producers to plan, design and modify the programmes according to the needs, tastes and aspirations of the target audience. Apart from this, programme ratings/listenership data are provided to sponsors, advertisers and marketers to fulfil their commercial objectives. As per the records available with the Audience Research Unit, the growth of radio audience has gone to 58 per cent in 2008-09 from 47 per cent in 1997-98.

International Relations Unit

The Unit carries out and coordinates various activities/commitments relating to broadcasting concerning All India Radio under the Cultural Exchange Programme Agreements signed between Government of India and different countries. Many high level delegations from different countries visited AIR with the aim to explore avenues for better cooperation with AIR/Prasar Bharti. Under the agreements, this unit coordinated exchange of radio programmes with broadcasting organizations of different countries. AIR also sent musical programmes to over 20 countries.

Central Store Office

The Central Store Office located at New Delhi performs functions relating to procurement, stocking and distribution of engineering stores required for the maintenance of technical equipment at All India Radio Stations.

Staff Training Institute (Programme)

The Staff Training Institute (Programme) started with the Directorate since 1948 has two main branches functioning from Kingsway Camp, Delhi and Bhubaneswar. They impart in-service training to programme personnel and administrative staff and induction course for the newly recruited staff and short duration refresher courses. It also conducts examinations for administrative staff. In addition, at present five Regional Training Institutes at Hyderabad, Shillong, Lucknow, Ahmedabad and Thiruvananthapuram are working.

Staff Training Institute (Technical)

The Staff Training Institute (Technical), part of the Directorate since 1985, now functions at Kingsway Camp, Delhi. The Institute organizes training courses for the engineering staff of All India Radio and Doordarshan from the level of Technician to the Superintending Engineer. It also conducts departmental qualifying and

Competitive Examinations. There is one regional staff training institute (Technical) at Bhubaneswar.

CBS Centres and Vividh Bharati

There are 40 Vividh Bharati-cum-Commercial Broadcasting Service (CBS) Centres including 3 Exclusive VB Centres. The work relating to CBS is performed in two wings, i.e., sales and production. A separate independent office known as Central Sales Unit along with 15 main CBS Centres looks after marketing of broadcasting time.

COMMUNITY RADIO

Community Radio, as distinct from public service broadcasting, serves to bring small communities together, focuses on the common man's day-to-day concerns and helps in realizing local aspirations. In a number of countries community radio has played an important role in informing and empowering people, especially the poor and vulnerable groups. Keeping this objective in view, the Government had announced a policy in December 2002 for the grant of Community Radio licences to the educational institutions. Subsequently, NGOs, / Civil Societies also demanded for participation in it. Under the liberalized policy in 2006, Government allows the non profit organizations, viz. NGOs, State Agricultural Universities, ICAR Institutions, Krishi Vigyan Kendras.

The Scheme can work as a powerful means of rural empowerment especially when focused on disadvantaged communities like dalits, rural women and handicapped persons. It can also facilitate development, agriculture, health, nutrition, education and Panchyati Raj issues thus enabling Government to reach out to beneficiaries more effectively.

FM RADIO

The Indian Radio industry is dominated by the State-owned AIR which covers 91 per cent of the country's area and reaches 99 per cent of the population. The turning point for the industry came with the phase-II privatization reforms when the Government rationalized the licensing fee by fixing it at 4 per cent of the gross revenue. This, for the first time, made the business model viable for the companies. Consequently, many large corporate houses entered the private FM business. From 21 operationalized private FM stations before the phase-II licensing, the number of stations shot out to 251 including 21 channels of phase-I.

Government had introduced FM phase I Policy in 1999. This met with limited success and resulted in large scale defaults and court cases. out of 108 channels put for auction only 21 channels could be operationalised. Due to limited success of FM Radio Phase I, FM Phase II policy was notified in 2005 after considering recommendations of Dr. Amit Mitra Committee and TRAI. Phase II policy was widely accepted. Growth in the future is likely to go through continued increase in the number of radio stations after Phase III licensing, further liberalization of regulation as well as better ability of the radio stations to sell advertisement space.

NEW INITIATIVES

All India Radio has laid thrust on providing good digital quality signal by adopting new technologies. Main thrust areas of 11th Plan are given below:

- To provide digital quality signal.

- To provide listeners multiple choice of programmes.
- Expansion of VHF/FM coverage in the border areas.
- To strengthen radio coverage in the border areas.
- To strengthen existing External Radio Services.
- Introduction of multi-media services and Value Added Services.

Activities of 'AIR Resources'

- Prasar Bharathi had started 'AIR Resources' as an independent centre to generate revenue by providing consultancy and turnkey solutions in the field of broadcasting and utilizing the vast resources of All India Radio and Doordarshan hardware, human resources and technical expertise.
- It is providing consultancy and turnkey solutions to IGNOU for establishing FM Transmitters for their Gyan-Vani stations at 37 places in the country. It has also leased out land, building and tower to IGNOU stations. Presently, 31 Gyan-Vani stations are operational and remaining 6 transmitters are also technically ready. Prasar Bharati has also undertaken the operation and maintenance of these FM Transmitters.
- Infrastructure like land, building and tower is also being shared with private FM broadcasters on rental basis. Presently under the Phase-1 scheme of private FM Broadcasting, 10 private FM channels in four cities are operational. Under the Phase-II scheme, 245 FM Channels are operational in 87 cities. The cellular mobile operators are also sharing Prasar Bharati infrastructure for their services.
- Prasar Bharati is also earning revenue by providing on site and institutional training in various disciplines of broadcasting.
- During the current financial year 2009-10, AIR Resources have generated gross revenue of ₹ 23 crore upto November 2009.

DOORDARSHAN

Doordarshan, a public service broadcaster, is one of the largest television networks in the world. It started a service on 15 September 1959 at Delhi with the transmission of educational and development programmes on an experimental basis. The second television centre was started in Bombay in 1972 and later Doordarshan's television service was expanded to other places. The rapid expansion of DD started in 1984 with almost everyday a transmitter being installed in the country. Doordarshan is presently operating 31 TV channels besides free-to-air DTH service and has a terrestrial network of 66 studios and 1416 transmitters installed throughout the length and breadth of the country. In terrestrial mode, Doordarshan coverage is available to about 92.2 per cent population of the country. Director General is the head of Doordarshan who is assisted by Deputy Directors General in the programme wing, Engineering-in-Chief in Engineering Wing, Additional Director General (A&F) in Administration and Finance Wing and Additional Director General (News) in News and Current Affairs Wing.

DD NATIONAL: THE FLAGSHIP CHANNEL

DD National channel is the largest terrestrial network in the world covering about 91.2 per cent population and 79 per cent land area of the country. Being a public service broadcaster the channel continues to make significant contribution to

accelerate socio-economic changes, promote national integration, inculcate a sense of unity and fraternity and stimulate scientific temperament among the people. DD National is the No. 1 channel in the country in terms of absolute viewership. Being the main face of public service broadcasting, the channel lends a healthy mix of entertainment, information and education. The service is available in terrestrial mode from 05.30 a.m. till midnight. In the satellite mode it is available round the clock.

In the year 2009-10 all major national events of the year like Republic Day Parade, Independence Day celebrations, President's and Prime Minister's address to joint session of Parliament, important parliament debates, Pravasi Bharatiya Diwas etc. were covered live. In addition, massive campaigns were provided to various government departments on developmental programmes and socially relevant special programmes e.g. other health related issues, special campaign for primary education for AIDS, consumer education, road safety, free legal aid to weaker section of the society etc.

DD-I Network telecasts quality documentaries on various issues of concern to the public, produced by eminent as well as budding film makers every Saturday 09.00 a.m. under the title Open Frame. These documentaries are sourced in an agreement between Prasar Bharati and Public Service Broadcasting Trust.

Sports Channel

A dedicated Indian Sports Channel of Doordarshan was launched on 18 March 1999. The transmission hours of the channel was increased from 10 hours to 12 hours a day from 25 April 1999 and considering the popularity of the channel the transmission hours have been extended to round the clock from June, 2000. A decision has been taken to introduce the system of cash outflow for covering non-Olympic and traditional sports. The cash outflow amount is charged mainly to meet expenses on moving DSNG and OB van for the live coverage along with amount paid to commentators. Ever since the Sports Broadcasting Signals (Mandatory Sharing with Prasar Bharati) Act, 2007 is notified Doordarshan has been telecasting sports events of national importance on its DD National terrestrial channel and free to air DTH network in compliance of the Sports Act.

DD India

Doordarshan opened its window to the world by launching its international channel on 14 March 1995. The channel, initially known as DD-World was renamed DD-India in 2002. The programming offers International viewers and update on the Indian social, cultural, political and economic scene. DD-India was launched with a mission "to build bridges of communication with Indians living abroad and to showcase the real India, its culture, its values, its traditions, its modernity, its diversity, its unity, its agony and its ecstasy to the entire world through programmes of high quality, that will inform, educate and entertain people in the highest traditions of public service broadcasting." It is a round-the-clock channel. It is unlinked from New Delhi and can be watched in 146 countries across the world through IS-10 (PAS-10) and G-13 satellites. DD India is also available on Doordarshan's satellited DTH Service DD Direct Plus.

DD India carries news bulletins, features on topical events, entertainment programmes, feature film, music and dance, children's programme, events and tourism. In addition to Hindi and English, programmes in Urdu, Punjabi, Telugu, Tamil, Kannada, Malayalam, Gujarati and Marathi form are offered. The feature films and

archival programmes like Bharat Ek Khoj are also included in New FPC of DD India Channel.

DD Bharati

DD Bharati Channel was launched by Prasar Bharati on 26 January 2002. Now the channel has completed more than seven years on April, 2009. It telecasts programmes on Health, Children, such as Meri Baat Art and Culture in which Novel based Programmes such as 'Peeli Aandhi', 'Boond Aur Samunder', 'Kagaar Ki Aag', 'Fauji', 'Swaraj' etc. are being telecast. Programmes on Music, Dance, Women, Education, Travelogue and on the country's great heritage and values, film based and comedy programmes such as "Mere Humsafar", "Andaz Style Bollywood Ka" and "The Living Legend" and comedy serials as "Pati Dev Kaam Pur Gaye" and "Daane Anaar Ke" are being telecast on DD Bharati channel.

DD Bharati has revamped to enhance the quality of programmes through MOU with Government agencies like IGNOU, IGNC and NCERT.

DD Urdu

DD Urdu was launched in 15 August 2006 initially for a shorter transmission which was extended to make Channel 24X7 w.e.f. 14 November 2007. DD Urdu telecast of Urdu version of President's Message to the nation on the eve of Independence Day and Republic Day. DD Urdu also proposed to celebrate "Yaum-e-Ghalib" (Ghalib Day) in grand and befitting manner on 14 February on the eve of Ghalib death anniversary by organizing an international Ghazal concert with enactments to make it lively and engaging.

DD Direct Plus

Doordarshan launched free-to-air DTH Service "DD Direct Plus" in December 2004 with a bouquet of 33 TV channels (Doordarshan as well as private TV channels) primarily for providing TV coverage to the areas hitherto uncovered by Terrestrial transmitters. Capacity of DTH platform has been subsequently augmented for transmission of 58 TV channels. DTH signals are uplinked to INSAT 4-B satellite, from the DTH Centre located at Todapur, New Delhi. DTH signals (Ku Band) can be received anywhere in the country (except Andaman and Nicobar Islands) with the help of small sized dish receiver units. Presently, there are 58 TV channels on Doordarshan's DTH platform. DTH service in C-Band with a bouquet 10 DD channels, especially for A & N Islands, has been started in September 2009. DTH signals in C-band are uplinked to INSAT 4-B satellite, from the Earth station located at Doordarshan's HPT Complex at Pitampura, Delhi. 10 channels included in C-band DTH bouquet are: DD National, DD News, DD Sports, DD Bharat, DD Urdu, DD Bangala, DD Tamil, DD Telugu, DD Malayalam and programmes of DDK, Port Blair.' TV Channels are available on Doordarshan's DTH platform "DD Direct Plus".

Support to Agriculture Extension

With a view to providing area-specific information on Agriculture, a pilot project was started by Doordarshan in 2002 and was implemented through 11 transmitters across the country in 18 states. After the successful implementation of this pilot project, a Centrally Sponsored Project "Mass Media support to Agricultural Extension" was approved and introduced in January 2004. The project is now being implemented with the budget of ₹ 102.95 crore for the financial year 2009-10.

The programme are formulated by experts of agriculture, horticulture, veterinary sciences, fisheries etc. and all aspects of these areas are covered on day-to-day basis, highlighting the different technologies of each crop, various schemes, success stories of farmers, weather reports, kishan credit card, agriculture news bulletin and Mandi Bhav (market prices), publicity of minimum support price, mounting of the campaign on seed treatment during kharif and other information provided by the DAC, Ministry of Agriculture etc. A daily news bulletin containing information on innovation, policy, export, weather etc. are telecast over National Channel and all 18 Regional Kendras five days a week.

DD Commercial

DD Commercial service is responsible for booking advertisement of goods and services on Doordarshan. Bookings of advertisement are normally accepted through accredited and registered agencies with agency commission and also directly on advance payment without agency commission. During 2009-10, Doordarshan earned total revenue of ₹ 541.30 crore (up to November 2009).

DD Archives

Doordarshan embarked on a long term archiving project that will focus on the valuable content created at 66 DD studios spread across the country. In the next phase the five zonal archive centers will be set up, that will be linked to the Central Archive facility at Akashvani Bhavan. Development Communication Division (DCD) continuing with its endeavour to achieve two parallel but critical goals of Prasar Bharati, Development Communication Division established in Doordarshan in March 2001, caters to the communication needs of Government Ministries, Departments and PSUs as a single window facility for marketing of Doordarshan airtime and production capabilities.

Electronic Media Monitoring Centre

The Ministry has set up an effective system in place to ensure continuous round-the-clock monitoring of content being shown on the TV channels. Electronic Media Monitoring Centre has been set up as a State-of-art facility at New Delhi to provide professional inputs to the Ministry for better content. The centre is equipped with RF downlink systems, Digital Channel Router System, logger systems etc. Presently, it is monitoring 150 TV channels round the clock. Efforts are underway to augment its capacity to enable it to monitor 300 TV channels round the clock during this financial year 2009-10. The Centre was commissioned on 9 June 2008 at R & D Building, IP Estate, Ring Road, New Delhi, It is headed by a Director level officer.

Central Production Centre (CPC)

Situated in Delhi, the Central Production Centre (CPC) is currently responsible for managing the transmission of channels, i.e. DD News, DD Sports, DD India and DD channels like DD National and DD Bharati. It also specializes in production of documentaries and other DD programmes. In recent years, CPC has become an active player in preparation of programme promos of Doordarshan. The programme schedule of DD Sports, DD India, DD Urdu, are prepared by DG: DD. It has been allotted programmes of 30 mts duration each on different subjects by DG: DD Indian Classic Section meant for telecast on DD-1 (National Network) every Monday.

Audience Research

The Audience Research unit of Doordarshan with its 19 field units located with

Doordarshan kendras all over the country, is involved in Research studies on various aspects of broadcasting since 1976. The field units are located at Ranchi, Jaipur, Delhi, Ahmedabad, Nagpur, Chennai, Bangalore, Lucknow, Hyderabad, Bhubaneswar, Bhopal, Kolkata, Guwahati, Mumbai, Gorakhpur, Rajkot, Jalandhar, Thiruvananthapuram and Srinagar. The unit is manned by professional researchers headed by Director, Audience Research at the Directorate level.

Doordarshan and Commonwealth Games 2010

Doordarshan was appointed a Host Broadcaster for Commonwealth Games, 2010. Doordarshan made elaborate arrangements for the coverage of various events of the games from 3-14 October 2010. Commonwealth Games 2010 opening and closing ceremonies were telecast live on Doordarshan Network.

NEW INITIATIVES

Digitalization

Satellite transmission of all 31 DD channels is in digital mode. DTH transmission is also in digital mode. Out of total 66 studio centres in DD network, all the 17 major studio centres and 4 smaller studio centres are fully digital and 31 smaller studio centres are partially digital. Remaining 14 studio centres are analog, at present. Out of these 14 analog studios centres, projects of digital are under implementation at 2 locations and with the completion of these projects these 2 studios would become fully digital. 8 analog Studios and 31 smaller studio centres (partially digital) are planned to be fully digital, 8 analog Studios and 31 smaller studio centres (partially digital) are planned to be fully digitalized under 11th Plan.

High Definition Television (HDTV)

High Definition Television (HDTV) is a broadcast system that transmits pictures with more lines providing significantly higher resolution than traditional formats allow.

DTH Service of Doordarshan

"DD Direct Plus" Doordarshan launched free-to-air DTH Service "DD Direct Plus" in December 2004 with a bouquet of 33 TV channels (Doordarshan as well as private TV channels) primarily for providing TV coverage to the areas hitherto uncovered by terrestrial transmitters.

Mobile TV (DVB-H Transmission)

Doordarshan started Mobile TV service (DVB-H transmission) in Delhi in May 2007, as a pilot project, with a bouquet of 8 TV channels. The transmitter deployed is of 5 KW power operating on ch#26 in UHF band, which is installed in Akashwani Bhawan, Parliament Street, New Delhi.

PRESS AND PRINT MEDIA

Registrar of Newspapers for India

The Office of the Registrar of Newspapers for India (RNI) came into being on 1 July 1956, on the recommendation of the first Press Commission in 1953 and by amending the Press and Registration of Books Act, 1867. The Registrar of Newspapers for India, commonly known as the Press Registrar, is required, *inter alia* to submit an Annual Report to the Government by 31 December every year on the status of newspapers. The period for which the annual report was to be submitted, was changed from the

calendar year to financial year in 2002. As on 31 March 2009 the total number of registered newspapers/periodical was 73,146. These were 8,475 dailies, 383 bi/tri-weeklies, 24,544 weeklies, 9,458 fortnightlies, 22,124 monthlies, 4,864 quarterlies, 653 annuals, and 2,645 of other periodicity. These figures are for the year 2008-09.

Newspapers/periodicals were published in English and 21 main languages listed in the Eighth Schedule of the Constitution of India. Newspapers/periodicals were also published in 127 other languages including dialects and a few foreign languages. Orissa has the distinction of publishing newspapers/periodicals in 21 major languages. Delhi, Tamil Nadu and Maharashtra came next with 14, 13 and 11 major languages.

Out of the 73,146 newspapers/periodicals registered as on 31 March 2009, only 11,752 submitted their Annual Statements during 2008-09. The total circulation of these 11,752 newspapers/periodicals is 25,79,53,373 copies per publishing day. The largest number of newspapers/periodicals registered in any Indian language is in Hindi (29094). The second largest number of newspapers/periodicals registered in any language is in English (10,530). The state with the largest number of newspapers/periodicals is Uttar Pradesh with 11,543 newspapers/periodicals. The state with the second largest number of newspapers/periodicals is Delhi with 9,961 newspapers/periodicals.

PRESS INFORMATION BUREAU

The Press Information Bureau (PIB) is the nodal agency of the Government of India to disseminate information to the print and electronic media on government policies, programme initiatives and achievements. It functions as an interface between the Government and media and also serves to provide feedback to the Government on people's reaction as reflected in the media.

PIB disseminates information through different modes of communication, viz. press releases, press notes, feature articles, backgrounders, photographs and database available on Bureau's website. The Bureau disseminates information in English, Hindi and Urdu and in other Indian languages to reach out to about 8,400 newspapers and media organizations in different parts of the country.

Organizational Set-up

PIB has its Headquarters in New Delhi. It is headed by the Principal Director General (Media and Communication) who is assisted by a Director General and eight Additional Directors General. Besides, the Bureau has Departmental Publicity Officers varying in ranks from Directors to Assistant Directors and Media and Communication Officers who are attached with different Ministers in order of the Officer's rank and Ministry's size, importance and sensitivity to function as spokesperson of that Ministry/Department and to ensure dissemination of Information on policies and programmes of that Ministry/Department.

PIB also runs Control Room (News Room) at Headquarters to ensure dissemination of information after normal working hours on weekdays from 6.00pm to 9.00 pm and from 3.00 pm to 9.00 pm on weekends and holidays.

PIB has 8 Regional Offices headed by Additional Directors General and 34 Branch Offices and Information Centres to cater to information needs of regional press and other media. In addition to release of publicity material issued from the

Headquarters in local languages, these Regional and Branch Offices of PIB issue original press releases, press notes, backgrounders etc. whenever an important event is organized by any of the Central Ministries or Public Sector Undertakings in a particular region. These Offices also take up the decisions of the Central Government which may be of special importance to a particular region for focused publicity based on information dissemination on sustained basis.

Activities of PIB can be broadly classified in three Categories viz; Information, Education and Communication i.e. I.E.C. (Publicity) FeedBack, Accreditation and other Facilities.

IEC (Publicity)

Bureau's Officers have been attached to various Ministries and Departments. They are responsible for dissemination of information relating to policies and programmes of that Ministry/Department to Media. They function as the spokespersons of the concerned Ministry and advise their respective Ministries on all matters pertaining to information need of media and publicity requirements of the Ministries.

During April 2009-March 2010 the Bureau together with its Regional/Branch offices of PIB issued 90941 press releases, 3074 features, and organized 5188 press conferences and briefings.

During this period, the Photo Publicity Unit of the Bureau covered 1192 assignments, released 5006 photos and distributed 26020 prints of photographs to the Press and Regional/Branch Offices of PIB.

110 Correspondents, 22 Cameramen, and two editors/media Critics have been granted accreditation during this period. With this the number of media persons accredited is 1618 correspondents and 476 cameramen/photographers. Besides, 152 technicians and 84 editors and media critics have also been granted accreditation.

Conferences and Events

PIB organised an All India Editors' Conference on Social and Infrastructure issue at Srinagar on 14-15 October, 2009. The Conference was inaugurated by the Chief Minister of J&K and presided over by the Union Minister of I&B. In addition, the Union Ministers of Home Affairs, New & Renewable Energy, and Ministers of State for Minority Affairs, New & Renewable Energy, and Ministers of State for Minority Affairs and Road Transport and Highways addressed media on the issues concerning their respective Ministries. Five Union Ministers along with Ministers and dignitaries of the State Government, 50 Editors and Journalists from outside the state and the representatives of the entire J&K press and Media participated in the conference.

It organized a two-day Economic Editors' Conference (EEC) in the National Media Centre, Shastri Bhawan, New Delhi, which was inaugurated by the Finance Minister, Shri Pranab Mukherjee on November 3 November, 2009.

Separate sessions for media with the Ministers and senior officers of the seven participating economic and infrastructure Ministries were held. The Conference enabled economic editors and journalists to get first-hand account of the Government's policies and programmes. The Government too got feedback from the economic editors and media persons associated with economic sector. About 300 local and 44 outstation editors and media persons participated in the Conference.

The Bureau set up and managed the Media Centre with state-of-the-art communication facilities at the venue of the International Film Festival of India held from 23 November, 2009 to 3 December, 2009 at Goa to disseminate festival related information. To facilitate festival coverage, it provided accreditation to 360 media persons including 274 correspondents and 86 camera persons. The Media Centre remained operational for 15 days.

97th Indian Science Congress was held at Thiruvananthapuram from 3-7 January, 2010. Prime Minister of India inaugurated this prestigious event.

About 7000 delegates from national and international institutions of Science and Technology participated in this mega event. To ensure wide coverage, PIB has taken the national Press comprising both print and electronic media from New Delhi as well as a team of journalists from Chennai.

The 8th Pravasi Bhartiya Diwas was held in Delhi from 7-9 January 2010. The PIB organized media coverage for the annual meet of the Non Resident Indians (NRIs) and Persons of Indian Origin (PIOs), which attracted nearly 1500 delegates from all over the world. The event was inaugurated by the Prime Minister and State Chief Ministers addressed the delegates. Special media accreditation was done by the Bureau for covering the event. 366 media persons including 59 from abroad were accredited to cover the three day event.

Editors' Conference on Social Sector Issues - 2010 was held at New Delhi on 18-20 January 2010. More than 150 local Editors/Correspondents and 32 outstation Editors participated in the three day event. Nine Ministries, viz. Rural Development, Minority Affairs, Environment and Forest, Social Justice and Empowerment, Women and Child Development, Science and Technology, Labour and Employment, Health and Family Welfare and Human Resource Development participated.

Public Information Campaigns (PICS)

Public Information Campaigns (PICs) are held to disseminate information directly to the target beneficiaries on the flagship programmes of Union Government.

The strategy of a PIC is to combine information dissemination with the delivery of services at the doorsteps for the beneficiaries particularly in rural areas. It envisages direct contact with the 'Aam Aadmi' and seeks to empower citizens particularly from rural areas with knowledge of various welfare schemes of Central Government under the flagship programmes. Local stories are highlighted during PICs through release of photo features and exhibitions etc. During April 2009-March 2010, 93 PIC were organized by the Bureau.

Press Tours

Successful people's programmes/projects in remote and backward regions of the country are identified and national and local media are taken on tours to visit these developmental projects to witness the efforts of the individuals, organizations and Government agencies. Eight press tours were arranged during 2009-10.

Web Enabled Services

The website of PIB (<http://www.pib.nic.in>), an important source of information to small and medium newspapers of India, was reviewed to make it more attractive and incorporate new features. PIB also has 7 sister websites in 7 different languages, viz. Tamil, Malayalam, Kannada, Telugu, Bengali, Marathi and Mizo.

SPECIAL SERVICES

Feedback, Feature and photo services

Bureau's officers attached to various Ministries/Departments also provide feedback to their respective Ministries and Departments. As part of the Special Services, the Feedback Cell in PIB prepares the Daily Digests and Special Digests based on news stories and editorials from the National as well as the Regional dailies and periodicals for the use by Ministries.

The Feature Unit of the Bureau issues backgrounders, updates, infonuggets, features and graphics, which are also sent to the Regional/Branch offices for translation and circulation to the local media. The unit releases special features highlighting policies and programmes of the Government. These include features and success stories on flagship programmes and other topical issues during 2009-10.

Accreditation and other services

The PIB provides accreditation to media representatives including foreign media at the Headquarters. This facilitates them to access information from the Government sources. The Bureau has now adopted a fully online system of accreditation from 2009-10.

Commonwealth Games, 2010

PIB set up the Main Press Centre (MPC) for the Commonwealth Games at Pragati Maidan, New Delhi and 18 Venue Media Centres (VMCs) at games venues. Approximately 2000 media persons covered the Games.

NEWS AGENCIES

PRESS TRUST OF INDIA

India's largest news agency, Press Trust of India (PTI) is a non-profit sharing co-operative owned by the country's newspapers with a mandate to provide efficient and unbiased news to all subscribers. Founded on 27 August 1947, PTI began functioning from 1 February 1949.

The PTI offers its news services in English and Hindi languages. *Bhasha* is the Hindi language news service of the agency. PTI subscribers include 500 newspapers in India and scores abroad. All major TV/radio channels in India and several abroad, including BBC in London, receive PTI service.

The PTI now has its own satellite delivery system through a transponder on an INSAT satellite for reaching its services directly to subscribers anywhere in the country. Increasingly more and more subscribers are opting for satellite reception. Photo service is delivered by satellite as well as accessed by dial-up. PTI has also now begun satellite transmission by Ku band which offers subscribers the option of receiving news through a cheaper and small size satellite receiver.

PTI is on the Internet too. The agency's news services have been showcased on its website <http://www.ptinews.com>. Clients also have the option of taking any of PTI's services through Internet. PTI news is also available through World Space radio broadcast reception.

The Photo service is delivered by satellite as well as accessed through dial-up. The agency is now engaged in archiving its photos. Once launched the online photo

archives will help access photos from the agency's old files dating from 1986 when the Photo service was launched.

It employs more than 400 journalists and 500 stringers to cover almost every district and small town in India. Collectively, they put out more than 2,000 stories and 200 photographs a day to feed the expansive appetite of the diverse subscribers, who include the mainstream media, the specialised presses, research groups, companies, and government and non-governmental organisations.

PTI correspondents are also based in leading capitals and important business and administrative centres around the world. It also has exchange arrangements with several foreign news agencies to magnify its global news footprint.

Currently, PTI commands 90 per cent of new agency market share in India.

Besides the news and photo services, the other services of the agency include mailer packages of Feature, Science service, Economic service and Data India, and screen-based services as News-scan and stock scan. A television wing, PTI-TV, does features and undertakes corporate documentaries on assignment basis.

The PTI has arrangements with the Associated Press (AP) and Agency France Press (AFP) for distribution of their news in India. AP's photo and international commercial information are also distributed in the country through PTI.

The PTI is a partner in Asia Pulse International, a Singapore-registered company, formed by PTI and five other Asian media organisations to provide an online data bank on economic developments and business opportunities in Asian countries. PTI is also a participant in Asianet, a co-operative arrangement among 12 news agencies of the Asia-Pacific region, for distribution of corporate and government press releases.

The PTI is a leading participant in the NAM News Network, the Internet-based news exchange arrangement of the Non-Aligned Countries, and the Organisation of Asia-Pacific News Agencies. It also has bilateral news exchange arrangements with several news agencies belonging to the countries of Asia, Africa, Europe and Latin America.

UNITED NEWS OF INDIA

United News of India (UNI) was incorporated under the Companies Act, 1956 on 19 December 1959 and started functioning effective 21 March 1961.

In the past four decades, UNI has grown into a major news organisation in India and, with its vibrant presence, provided the much-needed spirit of competition in the vital areas of news gathering and dissemination.

UNI's innovative spirit was evident when it became the first news agency in India to launch a full-fledged Hindi wire service 'UNIVARTA' in 1982 and a Photo Service and a Graphics Service in the same decade. In June 1992, it launched the first-ever wire service in URDU.

Further, UNI has Correspondents in Washington, New York, London, Moscow, Dubai, Islamabad, Kathmandu, Colombo, Dhaka, Singapore, Toronto (Canada), Sydney (Australia), Bangkok (Thailand) and Kabul (Afghanistan).

UNI distributes world news from Reuters, the world's largest information company. Besides, it has news exchange arrangements with Xinhua of China, RIA Novosti of Russia, UNB of Bangladesh, Anadolu of Turkey, WAM of the United Arab

Emirates, GNA of Bahrain, KUNA of Kuwait, ONA of Oman and QNA of Qatar and CNA of Taiwan.

UNI's Photo Service distributes about 200 pictures every day, including sixty international photographs from EPA, the European Pressphoto Agency and Reuters. Its Graphics Service distributes five or six graphics every day. UNI today has a countrywide network of 27 photographers and an equal number of photo stringers who contribute round-the-clock for UNI's daily photo report of about 200 pictures.

In the 46-odd years of its existence, UNI has acquired an enviable reputation for its fast and accurate coverage of news events.

NAM NEWS NETWORK

NAM News Network (NNN) is the new Internet-based news and photo exchange arrangement of the news agencies belonging to member countries of the non-aligned movement. News and photo contributions of NAM news agencies including Press Trust of India are uploaded onto the NNN website <http://www.namnewsnetwork.org> for online access by all. Malaysian news agency Berita is at present handling the operation of the website from Kuala Lumpur.

Operational from April 2006, NNN was formally launched by the Malaysian Information Minister Mr Zainuddin Maidin in Kuala Lumpur on 27 June 2006. NNN replaces the Non-aligned News Agencies Pool (NANAP) which had acted as the news exchange mechanism among non-aligned countries for the last 30 years. With internet a cheap and reliable mode of communication, NNN is expected to contribute to sustained flow of information in the 116 member non-aligned world.

The decision to replace NANAP with NNN was taken at the Sixth Conference of Ministers of Information of Non-Aligned Countries (COMINAC VI) held in Kuala Lumpur in November 2005. The meeting felt that NANAP had lost its momentum due to declining support from member countries and that it "should be revitalised through a new workable mechanism, if necessary in a new form, to move forward." The meeting endorsed a Malaysian proposal for NANAP's replacement by the Internet-based NNN.

NANAP, set up in 1976, was the first attempt of the non-aligned movement to provide for exchange of news among its member countries. During its 30 years of operation, it played a significant role in improving the flow of communication in the non-aligned world. At a time when communication costs were very high, NANAP provided for sharing of communication channels of member news agencies to ensure a common network for exchange of news among all countries of the non-aligned movement. News was exchanged under the arrangement in four international languages - English, French, Spanish and Arabic.

PRESS COUNCIL OF INDIA

Press Council is a statutory quasi-judicial authority mandated by the Parliament to preserve the freedom of the press and maintain and improve the standards of newspapers and the news agencies in India. It is an autonomous body with equal quasi-judicial authority over the authorities and the press persons. For the discharge of the above objects, the Council comprises a Chairman and 28 members. While the Chairman has by convention been a sitting or retired judge of the Supreme Court of India, of the 28 members, 20 represent various segments of the Press and eight, overseeing the readers' interests are representatives of the two Houses of Parliament

and premier literary and legal bodies of the country, i.e. University Grants Commission, Bar Council of India and Sahitya Academy. The council has its own funds for performance of its functions under the Act that comprise the fee collected by it from newspapers and other receipts and grants from the Central Government. The Council is presently chaired by Hon'ble Mr. Justice GN Ray.

The Press Council Act, 1978 provides for re-constitution of the Council every three years. The tenth three-year term of the Council is to expire on 6 January 2011.

The process of reconstitution of the Council for its eleventh term was set in motion by the Council in its meeting held on 22 February 2010. Thereafter, a press notice was issued inviting claims from association of persons/news agencies of the categories referred to in clauses (a), (b), (c) of sub-section (3) of Section 5 of the Press Council Act, 1978 for recognition by the Council under Section 5(4) of the Act. A sub-committee of the Council has been set up for the purpose of scrutinizing the claims received in response to the notice.

The Council discharges its functions primarily through adjudications on complaint received by it either against the Press for violation of journalistic ethics or by the Press for interference with its freedom. Where the Council is satisfied, after inquiry, that a newspaper or a news agency has offended against the standards of journalistic ethics or public taste or that an editor or working journalist has committed any professional misconduct, the Council may warn, admonish or censure them or disapprove of their conduct. The Council is also empowered to make such observations as it may think fit in respect of the conduct of any authority, including Government, for interfering with the freedom of the press. The decisions of the Council are final and cannot be questioned in any court of law.

Complaints before the Council

During the year under review, a total of 950 complaints were instituted in the Council. Of these, 180 complaints were by the Press against authorities of the Government for curtailment of press freedom and 770 complaints were directed against the press for breach of journalistic ethics. With 904 matters pending from the last year, there were a total of 1854 matters for disposal by the Council. Of these 681 matters were disposed of during the year, either by way of adjudication or through summary disposal by the Chairman on account of settlement or due to lack of sufficient grounds for holding inquiries or non-pursuance, withdrawal or on account of matters having become *sub-judice*. Out of these 681 matters, four matters were directly placed before the Council for adjudication. In all 1173 matters were being processed at the close of the year.

The 2010 edition of "Norms of Journalistic Conduct" for observance by the print media will be brought out shortly.

Reports Adopted by the Council

The Council came out with studies and reports on important matters which have a nexus with preservation of the freedom of the Press and maintenance of its standards. These reports are:

1. Report on Media Coverage of Batla House Encounter' adopted by the Press Council of India on 9 June 2009.
2. Report of Fact Finding Committee in complaint of Shri Samiuddin Neelu, Lakhsimpur, Khiri based staff reporter of *Amar Ujala* against

Ms. N. Padmaja, the then Superintendent of Police, Lakhimpur, Khiri, Uttar Pradesh adopted by the Council on 22 February 2010.

3. Report of the Assessment Committee on the charges of police Brutality on Journalists of print and electronic media in the Osmania University, Hyderabad adopted by the Press Council of India on 31 March 2010.

In its efforts to encourage debates on media matters, the Council organised/participated in discussions in various parts of the country.

Interaction with World Press Bodies

The Council interacts with press/media Councils and similar bodies in different parts of the world for active encouragement to preservation of the press freedom and promotion of its standards and ethics worldwide. As a part of these efforts, the Chairman of the Council attended General Body meeting and the Executive Committee meeting of the World Association of Press Councils, an umbrella organization of Press on 9 July 2009 at Istanbul in Turkey wherein he was also elected President of the organization for a three year term. This is the second occasion when this prestigious body is being headed by India. Earlier Mr. Justice P.B. Sawant, former Chairman, Press Council of India presided over the body as its President between 1997-2001. Mr. Justice G.N. Ray also had an opportunity to meet Greek Press. A long and fruitful discussion with Journalists' Union of Greek helped in understanding the functioning of Press Council of India and Journalists' Union beside media scenario of respective countries.

The Chairman in his capacity as President, WAPC also attended the WAPC meet hosted by Northern Cyprus Press Council at Turkish Republic of Northern Cyprus on 26-28 March 2010.

Website Updation

During the period under review the website of the Council was updated with the following contents:

1. Uploaded Council's Publications namely, (Quarterly Reviews) *PCI Reviews*, *Press Parishad Samiksha*, Annual Reports of the Council for 2008-09 (Hindi and English), *Compendium of Adjudications 2008-09* (Hindi and English), Souvenir brought out on the occasion of National Press Day, 2009, *Norms of Journalistic Conduct, 2010*.
2. Press Releases issued during the period.
3. Updation for templace for information handbook version 1.0.

Besides, the website was enriched with the addresses of the Chairman delivered during the period. Further, information pertaining to the council for the benefit of the general public was also uploaded.

The council successfully published its quarterly house journals in Hindi and English that chronicle the activities/important developments of the press world.

Press and Registration Appellate Board

Section 8C of the Press and Registration of Books Act, 1867 entrusts to the Press Council of India, the Appellate Jurisdiction over the Magisteral Orders of Non-authentication of a Declaration under Section 6 or its subsequent cancellation under Section 8B of the said Act. The Board consists of a Chairman and another member to

be nominated by the Press Council of India from among its members. During the year, Shri Ramesh Gupta functioned as a Member of the Board.

At the beginning of the period under review, 12 appeals were pending before the Board and nine more appeals were preferred. The Board held two sittings during the year. Out of the these 21st appeals, 10 appeals were disposed of and 11 appeals are pending for consideration before the Appellate Board.

RESEARCH REFERENCE AND TRAINING DIVISION

The Research Reference and Training Division is a subordinate office of the Ministry of Information and Broadcasting. Its role is to assist the Media Units of this Ministry in collection, compilation and preparation of material involving research in published works, etc. and building up of a compendium of knowledge on important subjects. Set up in the year 1945, the Division functions as an information-serving unit for the Ministry of Information and Broadcasting and various Media Units under it. The Division studies trends in Mass Communication Media and maintains reference and documentation service on Mass Communication Media.

Situated at Soochna Bhawan, CGO Complex, Lodhi Road, New Delhi, the organization is headed by Additional Director General who is assisted by two Directors, One Deputy Director, One Chief Documentation Officer, One Research Officer and One Documentation Officer and other supporting staff.

The Division compiles two annual reference works, one titled INDIA, A Reference Annual, an authentic work on development and progress made by Central Ministries/Departments, State/Union Territory Administrations and PSUs/Autonomous Bodies and MASS MEDIA IN INDIA, a comprehensive publication in Hindi language under the title—BHARAT. The Division successfully brought out the 53rd edition of Reference Annual, INDIA 2010 in the month of January 2010.

The Division records important national and international events for the chapter, the Diary of Events in India Annual. The Division prepares a monthly report of subject-specific Specialty Magazines having a share of FDI and having been given permission for publication in India. The magazines are monitored as to whether they stick to the stipulations laid down by the Government.

The Division has a well-stocked library with a large collection of documents on various subjects; bound volumes of selected periodicals and various reports of the Ministries, Committees and Commissions. Its collection includes specialised books on subjects pertaining to journalism, public relations, advertising and audio-visual media, all prominent encyclopedia series, yearbooks and contemporary articles. The library was housed in Shastri Bhavan. In the year 2008, it has been shifted to Soochana Bhawan.

The National Documentation Centre on Mass Communication (NDCMC) was created in 1976 as a part of the Division on the recommendation of an Expert Committee set up by the Ministry, for collecting, interpreting and disseminating information about the events and trends in Mass Media through its periodical services. The NDCMC documents major news items, articles and other information material available on mass communication. The current activities of the Centre range from collecting and documenting information, to dissemination, not only for the development of cross-country mass communication but also for participation in the international information flow.

The information collected is maintained and disseminated through services like 'Current Awareness Service'—An annotated index of select articles on mass media published in newspapers and journals being subscribed by the Centre; 'Bibliography Service' - An annotated subject index of articles on mass media published during past one year in newspapers and journals being subscribed by the Centre; 'Bulletin on Films' - An abstract of various developments in the film industry; 'Reference Information Service' - Background paper on subjects of topical interests in the field of mass media; 'Who's Who in Mass Media' - Biographies of various media personalities in lime light; 'Honours Conferred on Mass Communicators' - Highlights the various awards announced during the year to mass communicators including the national and international film awards; and 'Media Update' - It brings to focus major national and international media events for record and reference.

Under the 11th Five Year Plan, the Division is administering a Scheme titled 'Research Reference and Mass Media.' It has three components namely (i) Research in Mass Media in which research studies are undertaken on topic of interest for the Ministry of Information and Broadcasting and its Media Units, (ii) Upgradation of Library, intends to convert the existing library to a virtual library and (iii) National Media Awards, it envisages to introduce "National Media Awards" to sensitize media about its social commitment and to promote model Journalistic character.

PHOTO DIVISION

Photo Division, an independent media unit meant for visual support for the varied activities of the Government of India, is a subordinate office of the Ministry of Information and Broadcasting and the biggest production unit of its kind of the country in the field of photography.

The Division is responsible for visual documentation and the preparation of photographs both in Black and White and Colour initially, for both internal and external publicity on behalf of the Government of India.

The major function of the Photo Division is to document photographically, the growth, development and the political, economical and social changes in the country and to provide visuals (still) to the media units of the Ministry of Information and Broadcasting and other Central and State Government Agencies, Ministries/ Departments including President's Secretariat, Vice-President's Secretariat, Prime Minister's Office, Lok Sabha and Rajya Sabha Secretariats and Indian Missions abroad through XP Division of the Ministry of External Affairs.

External Publicity Division of the Ministry of External Affairs, DAVP and the PIB get the major support and services provided by the Photo Division. External Publicity Division of the Ministry of External Affairs takes the major chunk of its production for the external publicity of the Government of India. This includes extensive documentation of the visit of all the Heads of States/Governments of Foreign countries and presentation of the albums of the documentation of these visits on the departure of VVIP's. On the other hand PIB now gets the major routine coverage of the local VIPs and uses the picture taken by the Division for the day-to day feeding to the Press through Internet. DAVP depends on the complete visual support from the archives of the Division, which is developed during the last five decades for the

preparation/production of various kinds of Exhibition/advertising materials to be circulated amongst the large population of the country.

The Division also supplies photographs on payment both in Black and White and Colour to the non-publicity organizations and general public through its Pricing Scheme.

The Division has substantially updated its laboratories and equipment for handling different kinds of photographic production and assignments in Black and White and Colour both in conventional system as well as the state-of-the-art Digital technology. News Photo Network for transmission of images has been installed at the office of Photo Division, at Soochna Bhawan, New Delhi and the network could be linked from all corners for photo publicity of the Government activities.

Division established a Digital Photo Library at its Headquarter at Soochna Bhawan for digital storing of the conventional images acquired by the Division from time to time. Processing of the transfer of the images from the conventional photo images to the digital form and placing it to Digital Photo Library is almost at the final stage. Images acquired by the Digital System of Photography are available *off line* at the moment. However, it would be available online very soon.

To keep a synergy between the other Media Units, Division has taken up various measures. The Division has launched its official website to explore the global utility of around 8-10 lakh archival and current images. The Division is in progress of introducing E-commerce feature for the sell/buy of images through the official website. A high capacity server is installed for the online/off-line retrieval of archival images. The News Photo Network of the Division has been functioning on complete digital mode to avoid the delay in sending photographs to newspaper and Press Information Bureau without delay. The official website of PIB is completely supported by the Division by supplying digital images and hard copies etc. of the day-to-day assignments. On assignments of Vice-President, Prime Minister and visiting VVIP's the digital camera equipment has been utilized with Laptop and V-data cards to download and upload the digital images from the venue itself in city as well as in local tours. The Division provides facility to DAVP for the supply of life size digital inkjet images for the exhibition purpose. To disseminate its expertise it also took measures to organize Workshop etc. in collaboration with Media Units and also with State Governments.

During the 11th Five Year Plan (2007-2012) the division has initiated two new schemes: National Centre of Photography and Special Drive for North-East Region and Isolated places in Jammu and Kashmir, and Andaman and Nicobar Islands, Lakshdweep etc. For the year 2009-2010 in the Scheme "National Centre of Photography" Division continued its work of Upgradation of Digital Photo Library with the provision of De-humidification system and temperature control unit with safety device etc.

Other part of the Plan scheme "Special Drive for the North East, and the isolated Jammu Kashmir, and Andaman Nicobar Islands, Lakshadweep etc." the documentation of the developmental project in such areas has already been taken with the extensive photo coverage and the work is in progress. Division took up and the work is in progress. Division took up and is taking up the documentation of the

development activities, Life and Environment, scenic beauty etc. of the following states:- Lakshadweep, Andaman and Nicobar Islands, Arunachal Pradesh, Assam, Mizoram, Sikkim and Jammu and Kashmir.

Outsourcing of Images

In order to enrich its Photo Archives and to have a cross-referencing of the existing images, Photo Division through its scheme National Centre of Photography has decided to acquire old photographs of archival value of at least 50 years old from the photographers, collectors and individuals having old records. A committee in this respect was formed with two outside experts, an eminent historian Dr. Narayani Gupta and an eminent Photographer Shri Raghu Rai in addition to two Directors from the Ministry and Director, Photo Division as the Chairman of the Committee. Division has given countrywide announcement for the collection from the collectors. A good response has been received and it is under process and it is expected that the Division will be able to acquire approximately four to five hundred images of important archival value of at least 50 years old.

Queen 's Baton Relay (QBR) of Commonwealth Games 2010.

The Photo Division has been chosen as the official photo agency for Queen's Baton Relay and entrusted with a very important documentation work of the entire passage of the Queen's Baton Relay through all the 70 Commonwealth countries as-well-as the 28 States and 7 Union Territories of the country for the Commonwealth Games 2010.

As a special assignment Division took up ambitious photo documentation for the Government of National Capital Territory of Delhi. Division completed the documentation of more than thirteen thousand parks and gardens of the city of Delhi. As a gesture, Division gave free service to the sister Government and completed the job in three months time from May to July 2009.

Important Activities

As part of the routine activities Division has provided the important coverage of the day-to-day political activities and the different functions of the Government of India.

Photo Division organized successfully its 22nd National Photo Contest on a theme Badhte Kadam: A vision of Hope.

The aim of the Photo Contest was to encourage the photographers of the country so that talents available in the field could be projected and be given due recognition. The theme was rather wide in its scope and this gave the contestants a large arena from which to select their subjects.

National Level Photo Contest in Collaboration with the Ministry of Tribal Affairs

Photo Division has conducted a National Level Photo Contest on Tribal Portrait.

Production Figure

The number of assignments covered, negatives handled and prints/albums prepared/produced by the Photo Division during the year 2008-2009 are: 1. News and Features assignments covered 18377, 2. Digital images acquired in house 19,16,23 3. Digital images short listed for archive 5,88,074. Total Black and White and Colour prints supplied 6,39,005. Total Photo Albums/Wallets produced/prepared: 160.

PUBLICATIONS DIVISION

The Publications Division is a repository of books and journals highlighting subjects of national importance and India's rich cultural heritage. It is publishing books in English and Hindi as well as in all major Indian languages at affordable prices. The subjects range from art, history, culture, biographies of eminent persons, land and people, flora and fauna, children's literature, science and technology and Gandhian literature to works of references like India - A Reference Annual. Set up in 1941, the Division has published nearly 8000 titles so far in English, Hindi and regional languages. In the year 2009-10, it published 116 titles on varied subjects. The Division also brings out selected speeches of the Presidents and the Prime Ministers.

With Headquarters at Delhi, the Division functions through its various field units - Sales Emporia at New Delhi, Mumbai, Chennai, Kolkata, Patna, Lucknow, Hyderabad, Thiruvananthapuram and Yojana Offices at New Delhi, Mumbai, Kolkata, Chennai, Ahmedabad, Guwahati, Hyderabad and Bengaluru. The offices of *Employment News* and Journals Unit are located in New Delhi.

Apart from books on India's art, culture, history, land and people, flora and fauna, Gandhian literature, children's literature, science and technology biographies of eminent Indians, the Division also publishes books to commemorate national events and centenaries of great leaders.

Keeping in view the changing times, Publications Division has taken initiative to publish books on areas of contemporary relevance such as globalization, disaster management, environment, ICT, tracts on modern disciplines, economy, finance etc.

The list of books published by the Publications Division is available at www.publicationsdivision.nic.in.

Journals

Apart from the books, the Division publishes 21 periodicals in English, Hindi and regional languages - *Yojana* in 13 languages, *Kurukshetra* in English and Hindi, *Ajkal* in Hindi and Urdu, *Bal Bharati* in Hindi and *Employment News* (weekly) in English, Hindi and Urdu.

Bal Bharati

The popular children's monthly *Bal Bharati* in Hindi is being published regularly since 1948. Its objective is to provide healthy entertainment to children while educating them and inculcating human values and scientific temper through short stories, poems, and informative articles.

Aajkal

The prestigious literary magazine *Aajkal* in Hindi and Urdu covers different aspects of Indian culture and literature. The magazine has entered its 65th year of publication in May, 2009.

Yojana

The flagship journal of the Division seeks to carry the messages of planned development to all sections of society and serves as a forum to promote a healthy discussion representing a cross-section of views on socio-economic aspects of

development. Published in 13 languages (Hindi, English, Urdu, Tamil, Telugu, Kannada, Malayalam, Marathi, Gujarati, Punjabi, Oriya, Bengali and Assamese) *Yojana* presents an all-India perspective while highlighting regional development, innovations and initiatives.

Digitization of all the editions of *Yojana* has been done. All the editions of the Journal since inception are available on the Website of *Yojana*.

Kurukshetra

Kurukshetra a leading magazine on rural development issues published in Hindi and English for the last 57 years enjoys one of the highest circulation (over 40,000) in its category of magazines. It is a platform where academicians, planners, NGOs, and thinkers discuss issues on rural development objectively and in detail.

The magazine covers micro issues evaluating the effect of government policies at the grassroots level. *Kurukshetra* is an essential reference magazine for those interested in issues related to rural society - its life, culture and economy. Digitization of *Kurukshetra* in English and Hindi has been completed.

Employment News

Employment News, a weekly, published in English, Hindi and Urdu languages is the flagship publication of the Publications Division.

The weekly carries advertisements for jobs of Central and State Governments, Public Sector Undertakings, Autonomous Bodies, universities, admission notices for professional courses, examination notices and results of organizations like UPSC, SSC and other general recruitment bodies and mid level career promotion opportunities (Deputation). In addition to this, there is also an editorial segment, which carries articles relating to career opportunities. The Career Guidance series of the weekly newspaper contains new and upcoming fields or professional activities with information on the employment prospects in the area, qualifications required to enter the profession and the institute to avail education and training.

The journal commands an average circulation of about 4 lakh copies. It has a network of about 297 sales distributors and 4051 direct subscribers spread all over the country. The revenue of the journal has shown sustained growth over the years. The website of Employment News launched under the domain name www.employmentnewsgov.in has become very popular amongst the job seekers throughout the country.

Apart from this, the Division also publishes the *India Reference Annual* and *Bharat*. These are also uploaded on its website.

Besides its own publications and journal, the Division also handles marketing of publications brought out by other Government Departments, State Governments and Autonomous Organisations such as National Book Trust, Sahitya Academy, CSIR, ICAR, ICCR etc.

Bharatendu Harischandra Awards

In order to promote original writing in Hindi, Publications Division instituted the Bharatendu Harischandra Awards 25 years back. These prestigious awards are given

annually in four categories namely Journalism and Mass Communication, Women's Issues, Children's Literature and National Integration.

FILMS DIVISION

The Films Division was constituted in January 1948 by rechristening the erstwhile Information Films of India and the Indian New Parade set up in 1943, primarily for war coverage. The Cinematograph Act of 1918 was Indianised in 1952 which made the screening of documentary films compulsory throughout the country.

Since 1949, Films Division has been releasing a documentary or news-based or an animation film every single Friday for the theatres spread across the country, in 15 national languages. Over the decades, the Division has virtually recorded the country's entire post-independence history. With headquarters in Mumbai, Films Division is equipped with all facilities of production studios, recording theatres, editing rooms, animation unit, cameras, video set-up and preview theatres. Dubbing of films in 15 Indian languages is also done in-house.

The story of the Films Division is synchronous with the eventful years of the country since Independence and over the last 60 years. The Division has been motivating the broadest spectrum of the Indian Public with a view to enlisting their active participation in nation building activities. The aims and objectives of the Division, focused on national perspectives, are to educate and motivate people in the implementation of national programmes and to project the image of the land and the heritage of the country to Indian and foreign audiences. The Division also aims at fostering the growth of the documentary film movement, which is of immense significance to India in the field of national information, communication and integration.

Films Division produces documentaries, short films, animation films and news magazines. The Division caters to nearly 8500 cinema theatres all over the country and to the non-theatrical circuits like units of the Directorate of Field Publicity, mobile units of the State Government, Doordarshan, field units of the Department of Family Welfare, educational institutions, film societies and voluntary organisations. The documentaries and newsreels of State Governments are also featured in the Films Division's release on the theatrical circuit. This Division also sells prints, stock shots, video cassettes and distribution rights of documentaries and feature films in India and abroad. Apart from production of films, Films Division also gives on hire, its studio, recording theatre, editing rooms and other cine equipments to private film makers.

The documentaries range in theme and topic from agriculture to art and architecture, from industry to the international scene, from food to festivals, from health care to housing, from science and technology to sports, from trade and commerce to transport, from tribal welfare to community development etc. Normally, the Division reserves a certain quota of its production schedule for allotment to independent film makers from all over the country with a view to encouraging individual talent and thus promoting the documentary movement in the country. In addition to its normal production programme, the Division provides assistance to all the Ministries and Departments of Government including public sector organisations in producing documentary films.

Newsreel Wing of Films Division encompasses a network spread over main cities and towns including State and Union Territory capitals engaged in covering of major events, VVIP visits, etc to the different parts of the country and abroad and other events like natural calamities etc. These coverages are used for making the news magazines and also in compilation of archival material.

Famed **Cartoon Film** Unit of Film Division has also become high-tech with computer animation replacing cell or classical animation. Equipped with the state-of-the-art technology both in hardware and software, the Unit now can churn out productions in U.S. animation, 2-D and 3-D animation with advanced software including Opus, Concerto, High-End and Maya.

Ministry of Information and Broadcasting, Govt. of India has also entrusted the task of organizing the Mumbai International Film Festival for Documentary, Short and Animation Films (MIEF) to Films Division. This event provides a unique opportunity and platform to filmmakers, film producers, distributors, exhibitors and film critics from different countries to meet and interact during the festival. Over the years, MIFF has become a preferred and much awaited event for the filmmakers to showcase their work, interact and exchange ideas. MIFF began its historic journey way back in 1990 and since then it has grown in size and stature as one of the premier international events of the documentary film movement. The biennial MIFF is attended by a large number of prominent documentary and short filmmakers and intellectuals, students from India and other parts of the world. Nearly 35-40 countries with more than 600 entries participate in every edition of the festival.

The Film Division has organized the 11th Mumbai International Film Festival for Documentary Short and Animation from 3 to 9 February 2010 at National Centre for Performing Art, Mumbai in co-operation with the Govt. of Maharashtra.

From the edition of the festival, International and Indian Competition Sections have been merged into one Competition Section. Another salient feature is a new award for the Best "Student Film /Video". The award money has also been enhanced from this festival in each category and total award money is ₹ 22.75 lakh along with Golden/Silver Conches in different categories of Competition. In addition to this "Dr. V. Shantaram Award for Lifetime Achievement" is given to an Indian film maker for his/her contribution to documentary film movement with cash award of ₹ 5.00 lakh and trophy. The cash award has been enhanced from ₹ 2.50 lakh to ₹ 5.00 lakh from the 11th MIFF.

The highlights of the 11th M.I.F.F. are screening of some of the best films curated from all over the world in different sections apart from Competition Films, Seminar, Open Forum and Interactive sessions. In the Special packages, Science fictions, persistence resistance films from Magic Lantern Foundation, Films on environment, Climate Change: CMS Vatavaran Panorama, Films on Immigration issues, Swiss Indian Film Bridge, Remembering freedom legends and Best of festivals were screened. In country focus, select films from Argentina and Bhutan were screened while in the Cinema Legends, biographical films made on cinema legends were screened.

The Distribution Wing (DHO) of the Films Division control 10 Distribution Branch Offices situated in Bangalore, Chennai, Hyderabad, Kolkata, Lucknow, Madurai, Mumbai, Nagpur, Thiruvananthapuram and Vijayawada. These branches

are headed by either Sr. Branch Manager or Branch Manager who functions as Head of Office as well as DDO of the Branches concerned and are responsible for the supply of Approved film to all the cinema theatres (required under the Central Cinematograph Act, 1952) execution of Agreement, issue of Films Division Certificate as well as collection of 1 per cent rent from the exhibitors.

Films Division has released 11,562 prints of 48 approved films in cinema houses throughout the country in 2009-10. 435 prints of the 3 films produced by State Government were also released in Tamil Nadu State. Films Division has collected ₹ 489.62 lakh as rent during the financial year 2009-10.

Despite all the constraints, the Distribution Wing has redefined itself and has made Film Festivals a regular activity at State and district levels, independently as well as in collaboration with NGOs, film societies, educational institutions etc. to reach out to the masses and to promote and encourage documentary movement. The Distribution Branch Offices have conducted 29 film festivals till 31 March 2010 reaching out to even the remotest places in India. These festivals were appreciated by the audiences from all walks of life. The branches also sell DVDs/VCDs of Films Division films.

The Distribution Wing also distributes prints of selected films of Films Division to the Indian Missions abroad through the External Publicity Division of Ministry of External Affairs. It also commercially exploits the films on royalty basis as well as through sales of Stock Shots, Film Strips, Video clippings etc. During the year 2008-09, the Wing has earned ₹ 15,55,476/- by sale of prints, VCDs and DVDs and ₹ 17,89,385/- by sale of Stock Shots up to 31 March 2010.

The Publicity Section of Distribution Wing arranges the participation of FD films in National and International film festivals. During the year 2009-10, Films Division has entered its films into 10 different National Film Festivals and 7 International Film Festivals. The Publicity Section has also arranged 45 special screenings of films on different subjects/topics. Four Press Shows of six films were also organized.

The Publicity section has been publishing Documentary Today, a quarterly magazine dedicated to the short film genre from 2007. Three issues of the magazine were brought out during April 2009 to March 2010.

Digitalization and Webcasting

Over a period of 60 years, Films Division has become a treasure trove of national history with a collection of more than 8100 films including archival footage, News Reel, New Magazine, Documentary, Animation and Short films. Due to the passages of time filmic material being fragile and ephemeral due to its chemical nature and are prone to decomposition which get aggravated if not stored under ideal condition and pose a serious need for its storage and its preservation and accordingly measures are envisaged under a Plan scheme called "Web Casting and Digitalization of Films Division Films." To preserve the films and restore duly digitalized format through Telecine Machine after which it will be stored in a proper storage on High definition Tapes and on DG Beta, which are the latest techniques in the world. Thereafter, Films Division have classified three broad groups, viz. Most precious, precious and normal Films. The most precious and precious films are being transferred on High Definition

tapes and normal films are being transferred on DG Beta. After Telecine transfer and restoration, films are being authored in DVDs/VCDs for regular use.

Under the Plan Scheme "Web-casting and Digitalization of Films Division Films" Films Division has completed digitalization of 7443 films out of 8131 films leaving a balance 688 films which are not in good condition due to climatic condition, to the extent the fund provided by the Ministry from time to time till 31 March 2009.

In this Plan Scheme, next stage/phase is to restore the filmic material which are deteriorated due to climate condition, to its original format along with contents. As it reveals, the digital/video form of the films undergoes change with the passage of time, it has no fixed parameter and life span. However, the celluloid format is the most standard form of films with preservation of life span of over 100 years if preserved in standard conditions. Therefore, efforts are required to be made for preservation of the celluloid material first followed by preservation in the digital formats. Similarly, under the part of the scheme it is proposed to upload the Films Division Films on the website and any person in the world can access the film through internet connection for which self contained proposal was sent to the Ministry.

Film Shows

The aim and objectives of the film shows focuses on national perspectives (to provide largest publicity platform to the Plans, Policies, Programmes and Projects of the Government envisaged for the development of the masses), to educate and motivate people in the implementation of national programmes and to project the image of the land and the heritage of the country to Indian and foreign audiences.

In order to fulfil the aims and objectives of the Films Division, 45 Special Screenings and Shows of films produced by Films Division have been organized at various parts of the country from 1 April 2009 to 31 March 2010.

In addition to this 29 state level film festivals were organized through various Branch Offices and Production Centers of the Films Division.

Films Division has also organized special screenings of 39 films on music and musical geniuses titled "Moments with the Maestros" in collaboration with Directorate of Film Festival and Entertainment Society of Goa, from 24 to 30 November 2009 at Black Box, Kala Academy, Panaji, Goa during International Film Festival of India, (IFFI) Goa, 2009. A number of Maestros were honoured on the occasion by the Chief Producer Shri Kuldeep Sinha. Other celebrities like Shri Gulzar, Biswajeet, Southern Film Star Shri Nagarjun and Ms. Amala also graced the inaugural ceremony in the presence of Chief Minister, Goa and Secretary I & B. Panel discussion with the celebrities was also arranged during the Festival.

Public Information Campaign

Films Division has participated in the Public Information campaign organised by the Public Information Bureau (PIB).

CENTRAL BOARD OF FILM CERTIFICATION

The Central Board of Film Certification (CBFC), set up under the Cinematograph Act, 1952, certifies films for public exhibition in India. It consists of a Chairperson and twenty-five other non-official members. The Board has its headquarters at Mumbai and nine regional offices located at Bangalore, Kolkata, Chennai, Cuttack, Guwahati,

Hyderabad, Mumbai, New Delhi and Thiruvananthapuram. The regional offices are assisted in the examination of films by advisory panels consisting of persons from different walks of life. Smt. Sharmila Tagore, a well-known film personality, took over as Chairperson CBFC on 13.10.2004.

During the period January to December 2009, the Board issued a total of 13,488 certificates, as against 15,805 during 2008; 3521 certificates were issued for celluloid films and 9967 certificates for video films. During the period under review, 1288 Indian Feature Films (Celluloid), and 283 Foreign Feature Films (Celluloid) were certified.

Out of 1288 Indian Feature Films certified during the period 2009, 639 were granted "U" certificates, 435 "UA" certificates, and 214 "A" certificates. Similarly, of the 283 Foreign Feature Films certified in the year, 44 were granted "U" certificates, 108 "UA" certificates, and 131 "A" certificates.

The Board certified a total of 1672 Indian short Films during the period under review, of which 1461 were granted "U" certificates, 179 "UA" certificates, and 32 "A" certificates. In respect of the 271 Foreign Short Films certified in the year, 90 were granted "U" certificates, 147 "UA" certificates and 34 "A" certificates.

A total of 9967 certificates were issued to Video films during the period. Out of these were 1005 Indian Feature Films, 2134 Foreign Feature Films, 5871 Indian Short Films, 700 Foreign Short Films, 124 Indian long films other than feature and 133 Foreign long films other than feature.

During the same period a total of 15 Indian Feature Films and 5 Foreign Feature Film were refused certificates as they were found to violate one or more of the statutory guidelines issued by the Central Government under section 5B (2) of the Cinematograph Act 1952. Some of them were subsequently certified in their revised versions.

During the period January to December 2009, 11 cases of Interpolation in films were detected at various places and the verification reports were sent to the concerned Judicial Magistrates for necessary action.

In order to speed up the certification work and to meet the target and time limit CBFC has distributed the work of different satellite channels to different regions of CBFC. Additional Examining Officers have been taken on deputation from other Central Government offices to dispose of the examination of films.

NATIONAL FILM DEVELOPMENT CORPORATION LIMITED

The National Film Development Corporation Limited (NFDC), incorporated in 1975, (100 per cent owned GOI body) was formed by the Government of India with the primary objective of planning and promoting an organized, efficient, and integrated development of the Indian film industry. NFDC was reincorporated in the year 1980, by merging the Film Finance Corporation (FFC) and Indian Motion Picture Export Corporation (IMPEC) with NFDC. The erstwhile Film Finance Corporation (FFC) was set up in the year 1964, with the primary objective of extending finance to young talented film makers for film production, whereas, the Indian Motion Picture Export Corporation, an autonomous body, was set up to regulate the import and export of films and canalization of raw stock into the country. In recognition of the need for a body that could facilitate the growth of the Indian film industry, the Government of

India merged the FFC and IMPEC and NFDC. The NFDC has so far funded/produced over 200 films. These films, in various Indian languages, have been widely acclaimed and have won many national and international awards.

The Corporation has its Corporate Office at Worli, Mumbai along with three Regional Offices situated at Chennai, Kolkata, and Delhi and a Branch Office at Thiruvananthapuram.

DIRECTORATE OF FILM FESTIVALS

The Directorate of Film Festivals was set up under the Ministry of Information and Broadcasting in 1973 with the prime objective of promoting good cinema. This is undertaken by organising a range of activities under these broad categories:

- (a) The International Film Festival of India.
- (b) The National Film Awards and the Dada Saheb Phalke Award.
- (c) Cultural Exchange Programme and organising screening of Indian films through the missions abroad.
- (d) The selection of Indian Panorama.
- (e) Participation in international film festivals abroad.
- (f) Special film expositions on behalf of the Government of India.
- (g) Print collection and documentation.

These activities provide a unique platform for exchange of ideas, culture and experiences between India and other countries in the field of cinema. It also provides a powerful platform for Indian cinema and fosters commercial opportunities for Indian films. Within the country, the latest trends in global cinema are made accessible to the general public, film industry and students.

NATIONAL FILM ARCHIVE OF INDIA

The importance of preserving cinema as an art and historical document has been recognized all over the world. The task of preserving cinema in all its varied expressions and forms is best entrusted to a national organization having adequate resources, a permanent set-up and the confidence of the film industry. The National Film Archive of India was established as an independent media unit under the Ministry of Information and Broadcasting in February 1964 with the following aims and objectives:

- (i) To trace, acquire and preserve for posterity the heritage of national cinema and build up a representative collection of World Cinema;
- (ii) To classify and document data related to film, undertake and encourage research on cinema and publish and distribute them; and
- (iii) To act as a centre for dissemination of film culture in the country and to ensure the cultural presence of Indian cinema abroad.

Achievements/ Planning of SRFTI

1. SRFTI has become a member of CILECT (An International forum of Film Schools) in 2008.

2. Many Diploma and Documentary films directed by SRFTI students were selected for screening, nominated for awards and won prizes at different International film festivals. Notable among them are *Bagher Bachcha* (Bengali), awarded as best film on

social issues in the National Film Award (NFA), 2007 (awarded in 2009), *Laal Juto* (Bengali), awarded as best non-fiction film of a Director in the National Film Award (NFA) 2007 (Awarded in 2009) and *Germ* (Hindi), selected for screening in the International Festival of Film Schools. Munich, Germany, 2009 and received best student cinematographer award. During the 45 years of its existence NFAI has been making rapid strides in achieving its goals. During the period 1 April 2009 to 31 December 2009 NFAI has added to its collection 21 fresh titles, 33 duplicate prints, 433 titles as free deposits, 214 DVDs, 200 books, 2005 stills, 25 disc records, 93 song booklets, 1189 publicity posters, and 43 film folders/ pamphlets. 2,07,498 ancillary film material like posters, stills, etc, were digitized.

NFAI collection of French films has become richer with 230 classic films donated by the Embassy of France in India. The list includes works of eminent directors like Chabrol, Godard, Renoir and many more. These films will be used strictly within archival rights for the film scholars and enthusiasts. During the period under review, 8000 reels of Picture and Sound Negatives were received from National Film Development Corporation, Mumbai, Bombay Film Laboratory and other private parties. Significant titles received as free deposits during the year included Marathi, Punjabi, Bhojpuri, Rajasthani and Gujarati titles along with Hindi titles for storage and preservation in the Archive during the year.

CHILDREN'S FILM SOCIETY, INDIA

Children's Film Society, India (CFSI) was established in 1955 to provide value-based entertainment to children through the medium of films. CFSI is engaged in production, acquisition, distribution/exhibition and promotion of children's films. The Head Office of the CFSI is located in Mumbai with branch offices at New Delhi and Chennai. The mission of CFSI is to facilitate promotion of children's films by encouraging, strengthening and spreading the Children's Film Movement all over the country and abroad. Films produced/procured by the Society are exhibited through State/District level Children's Film Festivals as well as through theatrical, non-theatrical exhibition in schools through Distributors, NGOs, etc.

During the year 2009-10, 4864 shows were arranged covering approx. 22 lakh children. CFSI also markets its films on VCDs and CDs. CFSI films are telecast regularly on television channels. In 2009-10, 5 feature films including animation films were dubbed in various versions. 11 versions of subtitling were also done. 2 feature films were acquired/purchased. 15 films were telecast on Lok Sabha Channel. Distribution/Royalty rights of CFSI films were sold to Maya Home Entertainment, Kolkata and Nick Channel. The films produced by CFSI are screened in various National and International Film Festivals and have won many awards. CFSI participated in as many as 7 International Children's Film Festivals during the year 2009-10. CFSI holds its own International Children's Film Festival once every two years. The 16th edition of this Festival was held in Hyderabad in November 2009. 70 films from 20 countries were selected for participation in the Festival. The VVIPs of the Festival, i.e. 350 children participated in the Festival from across the country. The inauguration of the Festival was at the hands of the Minister of Information and Broadcasting Smt. Ambika Soni and the closing Ceremony was done by Minister of State for I&B Shri Choudhury Mohan Jatua.

CFSI films 'HARUN-ARUN' and 'MAHEK, MIRZA' have been included in the curriculum of film teaching schools of Chicago, USA.

DIRECTORATE OF ADVERTISING AND VISUAL PUBLICITY

The Directorate of Advertising and Visual Publicity (DAVP) is the nodal multi-media agency of the government to meet the publicity requirements of various Ministries and Departments in a cost-effective manner. It provides single window service for publicizing Government policies and programmes from conception to design and execution through various media vehicles including press advertisements, print publicity (Folders, Posters, Brochures, kits, Booklets, Calendars and Diaries), outdoor publicity (Hoardings, Bus-Back Panels, Banners, Kiosks, Computer Animation displays, etc.), audio-visual publicity (Audio-Video spots, short films, docu-dramas, jingles, sponsored programmes, etc.) and Exhibitions. DAVP with its headquarters in New Delhi, has three regional offices at Bangalore, Delhi and Guwahati, besides 32 Field Exhibition Units across the country.

Press Advertisements

DAVP has on its panel over 4300 newspapers and periodicals in 30 languages covering all states for release of advertisements. Empanelment of publications is done as per the guidelines and procedures of the Advertisement Policy of the Government of India. The primary objective is to secure the widest possible coverage through advertisement keeping in view the message, target and the budget. 13,829 Classified and display advertisements were released by the Directorate in the financial year 2009-2010. DAVP launched Bharat Nirman Campaign on Flagship Programmes of Government of India in August - September 2010 at a cost of ₹ 5.78 crore.

Audio Visual Publicity

The Audio Visual Cell of DAVP produces and broadcasts/telecasts programmes and spots on social themes for Ministries/Deptts. DAVP arranges telecast/broadcast of Audio/Video spots on AIR, Doordarshan and Private radio/television channels. The audio/video programmes are produced through empanelled producers. These programme formats include audio and video spots/jingles, sponsored and folk music based radio programmes, promotional tele-films which are dubbed in Hindi, English and regional languages for national telecast/broadcast. More than 4500 TV and Radio spots, Jingles, Documentaries and Docu-dramas were produced and 325 Campaigns launched on TV and Radio in 2009-10. DAVP has over 253 Audio and Video producers, 204 private TV Channels and over 164 private FM channels on its panel apart from Doordarshan. AIR and Lok Sabha TV.

Printed Publicity

Different kinds of publicity materials like posters, Folders, booklets, brochures, calendars, diaries, wall hangers, stickers, etc., are designed and produced by DAVP in Hindi, English and various Indian languages to take socially relevant messages of the Government of India to the masses. During the year 2009-2010, DAVP brought out publicity items in various languages worth ₹ 6.25 crore.

Exhibition Wing

During 2009-2010, about 466 exhibitions carrying the messages of policies and programmes of Central Ministries and Departments for rural and urban population were held all over the country, over a period of 2020 exhibition days.

Mass Mailing Wing

Mass Mailing Wing has over 5 lakh addresses under 482 categories to reach out to the wide spectrum of people across the country. Over 142 jobs were taken up in

2009-10 in which nearly 1 crore 20 lakh copies of printed publicity material on policies and programmes of Central Ministries and Departments for the benefit of masses were dispatched to various mailing addresses.

Outdoor Publicity

DAVP takes up display messages on policies/programmes of Ministries/ departments of the Central Government through various outdoor formats like animation, Hoardings, Banners, Bus Panels, Kiosks, Metro Panels Inside, Kiosks Metro, Glow Sign Board, Unipole, Programme Board, Public Utility, railway Reservation Ticket, Shatabadi Train Panel, Bus Queue shelter, Metro Display Board, Auto Rickshaw etc. It is a conventional and effective means of spreading any message and the displays serve as a constant reminder to passersby. In 2009-10 a total number of 237 jobs worth over ₹ 21.86 crore were executed by the Directorate.

DAVP has a full-fledged studio with qualified artists for designing of publicity material required for different campaigns. The designs are mostly prepared in-house, keeping in view the special publicity requirements of the region where the publicity campaign is to be launched. The Studio is equipped with Desk Top Publishing facility for making designs for Print Publicity, Press Advertisements, Outdoor Publicity, etc.

DIRECTORATE OF FIELD PUBLICITY

The Directorate of Field Publicity is the only media unit, which is mandated to create awareness about Government's policies and programmes among the people living in rural, remote, tribal, non-electrified and media shadow areas. These areas also include border areas and the islands. It also facilitates a common platform for interaction between the communities and the service providing agencies of the Government. The Directorate of Field Publicity, with its Headquarters in New Delhi, was established in 1953 as 'Five Year Plan Publicity Organization' with the sole objective of publicity of Five Year Plans. It assumed its present form and role in 1959 with a wider publicity scope.

DFP aims at building consensus through public understanding and generating a well-informed dialogue among stakeholders so that the people have a popular understanding of developmental goals and issues and can make informed choices. The communication activities strive to create well-informed communities with regard to the national objectives of the Government, so as to reach the last man in the last mile. DFP's media strategy involves face-to-face interaction or interpersonal communication with the people in their local language. In its publicity activities, DFP involves resource persons and local NGOs to effectually disseminate the message.

The role of DFP is all the more important in view of the literacy levels, infrastructure availability and diversity in the country. It has also been scientifically proved that inter personal communication is far more effective and powerful. This is the only department that has the capability of providing direct feedback from masses back to the Union Government.

DFP has been mounting publicity drives through its 22 Regional Offices and 207 Field Publicity units across the country. Of these, 60 field units are in remote international border areas, in sensitive and strategic areas including those affected by Left Wing Extremism. The publicity is done largely through interactive forms like Oral Communication, Group Discussions, Seminars/Symposia, Public Meetings, Elocution Contests, Question-Answer sessions, etc. It also resorts to visual and live

entertainment programmes like Film Shows, Photo Exhibitions, cultural activities, etc., to communicate with the people. The Directorate also conducts competitions like quiz, essay, drawing and painting, slogan writing, calligraphy and locally relevant/socio-cultural competitions like rangoli making, conch blowing, archery, etc., to disseminate message on the chosen themes.

To mark 50 years of Directorate of Field Publicity, a three-day National Workshop on 'Roadmap and Future Challenges' and a daylong workshop on H1N1 Influenza were organised in New Delhi. Throughout the year, the Directorate of Field Publicity carried out special campaigns on H1N1 Influenza in addition to the regular publicity programmes on Flagship Programmes of the Government viz. MGNREGA, SSA, NRHM, ICDS, RTI, Rural Development, National Integration and Communal Harmony, PM's New 15 Point Programme for Minorities, Women Empowerment, Tribal Development, etc. Publicity support is being rendered to the Red Ribbon Express (RRE), a ten Coach Exhibition train on HIV/AIDS and NRHM. DFP has also participated actively in the Public Information Campaigns (PIC) organised by the PIB during this period.

During the year 2009-10, the Directorate organized 36,386 film shows, 12,040 Special Programmes, 45,559 Group Discussions, 31,309 Photo Exhibitions, 2,552 Success Stories and 5,016 Public Reactions.

SONG AND DRAMA DIVISION

The Song and Drama Division was set up in 1954 as a unit of All India Radio and was given the status of an Independent media unit in 1956 with the mandate of development communication. This is the largest organization in the country using performing arts as a medium of communication. The Division uses a wide range of art forms such as drama, ballets, operas, dance-dramas, folk and traditional recitals, puppetry. In addition, the Division organizes theatrical shows on national themes such as communal harmony, national integration, secularism, promotion of cultural heritage, health, environment, education, etc. through Sound and Light Programmes.

Organizational set up

Functioning from Headquarters at Delhi the Division has the following field offices : (a) Ten Regional Centres at Bangalore, Bhopal, Chandigarh, Chennai, Delhi, Guwahati, Kolkata, Lucknow, Pune, and Ranchi; (b) Seven Border Centres at Imphal, Jammu, Shimla, Nainital, Darbhanga, Jodhpur and Guwahati; (c) Six Drama troupes at Bhubaneswar, Delhi, Hyderabad, Patna, Pune and Srinagar; (d) Nine troupes of Armed Forces Entertainment Wing at Delhi and Chennai; (e) Two Sound and Light Units at Bangalore and Delhi and (f) A Tribal Pilot Project at Ranchi. Division has also re-opened its Dehradun unit in Uttarakhand from 1 August 2008.

Various Programme Activities

The Division caters to the entertainment requirements of the Armed Forces in most inhospitable, remote, border and forward areas. The Armed Forces Entertainment Wing troupes are very popular for presenting folk dances from all the states in original and attractive forms, colour and costume, thereby highlighting the cultural integration of the country. The areas visited by these tropes include Leh, Ladakh, Chumathang, Thoyas, Partapur, Mokok Chung, Lung Talai, Alon Samdhu, Pang, Port Blair, Indo-

China, Burma, Pakistan and Bangladesh borders interior parts of J&K and North East Region.

A special cultural programme was presented on 6 March 2010 at Vigyan Bhavan, New Delhi on the occasion of Women's Leadership Summit organized by Ministry of Women and Child Development.

Another VIP programme was presented on 19 March 2010 at Vigyan Bhavan in connection with National Films Award Distribution Function.

Ranchi Tribal Centre was established in 1980 to enhance awareness activities by involving more tribal artistes in the developmental process. 925-Programmes were presented by the troupes in tribal Areas of Bihar, Chattisgarh, Jharkhand, Madhya Pradesh and Orissa to educate the people about various developmental schemes designed for them during 2009-10.

The Border Publicity Troupes are Departmental troupes functioning at Imphal, Guwahati, Darbhanga, Nainital, Shimla, Jammu and Jodhpur. These troupes have undertaken publicity in the remote border areas to educate the people about various developmental schemes of Government of India and also to counter the propaganda from across the border. These Programmes were organized in close coordination with SSB, BSF and other Government agencies. The troupes present programme on National Importance in local dialects and Hindi touching Indo-China, Pakistan, Myanmar and Bangladesh borders.

During the year, the Departmental Drama Troupes situated at Delhi, Pune, Patna, Hyderabad, Bhubaneswar, Jammu/Srinagar and Delhi presented plays on various themes like Family Welfare, AIDS, Drug Abuse, National Integration, Communal Harmony, Environmental Issues etc. These troupes presented shows especially in local fairs and festivals and other Trade Fairs during 2009-2010 where large number of people congregate. Various issues on Health and family Welfare were presented in the plays.

The Division presented about 1690 Programmes for the Ministry of Health and Family Welfare on different themes on health awareness. During India International Trade Fair-2009 the Division presented colourful programmes in the pavilion of Health and Family Welfare. 162 programmes were presented on various themes of Health and Family Welfare in the form of drama composite programmes, magic, puppetry and traditional folk recitals, etc. The Division presented programmes on the occasion of health mela at Lalganj in Raibareilly a district of UP in October 2007. In New Delhi also a weeklong Health Mela of the MTNL was presented before huge gathering in which cultural programme were staged.

All the field units presented programmes on prevention of AIDS. Prior to presentation of Programmes in the field, the participating troupes were given orientation on the theme of HIV and AIDS. The Bengaluru Centre presented 120 Programmes on AIDS in coordination with Karnataka State Aids prevention Society. Total 1254 Programmes were presented on prevention of AIDS in the high prevalence districts all over the country during 2007-08.

In order to provide wide and effective publicity NACO has flagged off a special train "Red Ribbon Express" from 1 December 2007. In all its 71 halting places up to 31 March 2008 the Division presented 253 programmes covering Rajasthan, Madhya Pradesh, Maharashtra, Chattisgarh, Uttar Pradesh, Uttarakhand, Bihar, Jharkhand, West Bengal and Assam.

Bharat Nirman-Public Information Campaign

During 2009-10, the Division participated in all the Public Information Campaigns organized by the Ministry of Information and Broadcasting in which all the media units played remarkable role in giving publicity on themes like National Rural Employment Guarantee scheme, National Rural Health Mission, Sarvshiksha Abhiyan, Universal Mid-day meal programme, Jawaharlal Nehru Urban Renewal Mission, Right to Information Act, Prime Minister's 15 point programme on minorities etc. During the year 2009-2010, the Division provided full publicity coverage for the Public Information Campaigns at CSI Central Hr. Sec. School, Vellore, Tamil Nadu in July 2009; Kullu in August 2009; Chidambaram, Cuddalore, Tamil Nadu in September 2009; Pipadoity, Jodhpur, Rajasthan in September 2009; Hasan and Udupi, Bangalore in September 2009; Rhenock, East Sikkim in September 2009; Saitual, Mizoram in October Sonamura, Tripura West in October 2009; Karimanagar, Andhra Pradesh in October 2009; Kimin, Arunachal Pradesh, in November 2009; Titabor, Assam in November 2009; Chamarajanagar, Karnataka in November 2009; Kundrathur, Chennai in November 2009; Ampatty Block, West Garo Hills, North East in December 2009; Peramballur, Madnapalli, Chennai in December 2009; Kinwat, Nanded and Wardha, Maharashtra in December 2009; Mangaldoi, Darang of Assam in January 2010; Pynursia, East Khasi Hills Meghalaya in February, 2010, Khawzawl and Biata, Mizoram in February 2010; Salema, Tripura in February, 2010. Heingang Gram Panchayat, Imphal, Manipur in February 2010; Gossner College Campus, Simdega, Jharkhand in March 2010; Samistipur, Bihar in March 2010; Dumka, Jharkhand in March 2010; Balkunthapur Madhya Pradesh in March 2010; Thiruvallur, Chennai in March 2010; Karimganj, Assam in March 2010 Raha; and Nagoan, Assam in March, 2010.

Plan Scheme

Under the Plan schemes, the Division covers ICT activities. During 2009-10 under the scheme about 9615 programmes were presented.

During 2009-10 the following are the special components of the approved plan scheme of the Division :

- (a) Live Art and Culture, Information, Communication, Technology (ICT) activities in hilly, tribal, desert, sensitive and border areas.
- (b) Activities in 76 identified districts.
- (c) Publicity on Common Minimum Programmes in 10 Regional Centres.
- (d) Special Activities in J&K and North East Regions.
- (e) Presentation of Theatrical shows on National/social themes.
- (f) Modernisation of Song and Drama Division.

ICT/LAC activities in Hilly, Tribal, Desert, Sensitive and Border Areas

Programmes in Tribal, Hilly and Desert areas are presented with the view to creating awareness among the isolated tribes living in the hilly and desert areas regarding the developmental activities initiated for their welfare. These Programmes aim at promoting amongst them a sense of belonging to the country and to encourage them for their participation in the on-going developmental activities around them by devising programmes which are intelligible to them. Performing troupes are created from amongst the local people in their respective dialects and idioms. 6663 Programmes were presented during 2009-2010.

Activities in 76 Identified Districts

During the year 2009-10, the Division presented Programmes in the specially identified districts all over the India. National Integration, Communal Harmony, Anti-Terrorism and Patriotism are the themes being highlighted through these Programmes. 1261 programmes were presented during 2009-10 in all the 76 identified districts.

Publicity on Common Minimum Programme

879 Programmes were presented highlighting the salient features of CMP during 2009-10.

Special Activities in J&K and North East Regions

During the year 2009-10, this Division presented 774 Programmes providing special coverage for North-East, Jammu and Kashmir and other identified districts.

Presentation of Theatrical shows on National Themes

With the objective of educating the people in general and youth in particular about the rich cultural and historical heritage of the country, the Sound and Light Unit mounts Sound and Light programmes in various parts of the country. The S&L Delhi Unit presented "Shatroopa" a special sound and light show on women through ages at Rwatbhata (Rajasthan), "Krantiyatra" at Bhabhua (Bihar) and Rohtak (Haryana) Hon'ble Chief Minister. Haryana and other VVIPs witnessed the programmes, and South 24-Parganas (West Bengal) during the year 2009-2010.

TRAINING

FILM AND TELEVISION INSTITUTE OF INDIA, PUNE

The Film Institute of India was set up by the Government of India in 1960 under the Ministry of Information and Broadcasting. Following the addition of Television wing in 1974, the Institute was re-designated as Film and Television Institute of India. The Institute became a Society in October 1974 under the Registration of Societies Act, 1860. The Society consists of eminent personalities connected with Film, Television, Communication, Culture, Alumni of Institute and *Ex-Officio* Government members. The Institute is governed by a Governing Council, headed by a Chairman, the current Chairman being the eminent writer Dr. U.R. Ananthamurthy. The academic policies and plans of the Institute are formulated by the Academic Council. The matters involving finance are controlled by the Standing Finance Committee. The Institute consists of two Wings, The Film wing and the TV Wing, and offers courses in both Film and Television. The Three-year Diploma Courses lead to a Post Graduate Diploma in Film Direction, cinematography, Audiography and Film Editing. The Institute also offers a two-year Post Graduate Diploma Course in Acting a two-year Post Graduate Course in Art Direction and Production Design, and One-year Post Graduate Certificate Course.

Film and Television Institute of India provides the latest education and technological experience in the art and technique of film making and television production. In-service training is provided to officers of all grades of the Doordarshan and others. It is equipped with the latest digital and broadcast grade production set-ups viz. Non Linear, Beta cam and A/B Roll editing set-ups, Digital Cameras viz. Sony BVP-500 P, Soft Chroma Keyer, Digital Special Effect Generator, Silicon Graphics 02 workstations with Alias software, modern movie cameras, rerecording equipment etc. which provide an excellent exposure to the faculty and students of Film and

Television Institute.

Achievements of Film and Television Institute of India during 2009-2010:

A Festival of Films from Bangladesh was held in the auditoria of FTII and NFAI in the year of 2009.

A seminar organized on Cinema and Literature.

A three-day Documentary Film Festival in collaboration with Magic Lantern Foundation, New Delhi scheduled at FTII.

SATYAJIT RAY FILM AND TELEVISION INSTITUTE

Satyajit Ray Film and Television Institute (SRFTI), Kolkata, was established by the Government of India as an autonomous academic institution under the Ministry of Information and Broadcasting, and was registered under the West Bengal Societies Registration Act, 1961. Located at Kolkata and named after the legendary film maestro Satyajit Ray, SRFTI is the second national level film training institute to be established by the Government of India. The Institute offers three-year post-graduate diploma courses in Direction and Screenplay Writing, Cinematography, Editing and Audiography. Apart from the basic diploma course, the institute also has the provision to conduct short and medium term courses on areas related to film and television. Research and explorative studies in the sociology, culture and technology of film and television are other areas of focus in SRFTI.

SRFTI is a fully funded autonomous institute under the Ministry of I&B, run by a Society constituted by the Government of India. The Society headed by a President, runs the Institute through a Governing Council (GC) that is constituted with select members of Society. The Governing Council is the supreme Body for all executive functions of the Institute. It also constitutes different committees/bodies as deemed necessary viz. Academic Council Standing Finance Committee etc. The Government is represented in the society, Governing Council and Standing Finance Committee through ex-officio members who are officials of the Ministry of Information and Broadcasting, Government of India and various media units.

New Schemes

- (i) In the past few years, the world of audio-visual production has gone through a sea change. One of the major areas that have been developed immensely is animation and multimedia related application. The popularity and prospects of the animation are well known. There is a vibrant vast market and potential for web related application and multimedia CD-ROMS/ Games development in addition to animation films. In the next five years, India will become a major outsourcing destination for animation related work. There is a huge demand for trained manpower to support these activities. Thus, it is high time to start this course to keep pace with the changing environment of audio-visual art.

In view of the changing trend and scarcity of specially trained manpower in the field, it is the need of the hour to add a new branch of study in the Institute. Thus, Institute intends to start two-year postgraduate diploma course in Animation and Electronic Imaging with an intake capacity of 10 students in each batch. Tentatively the Course will commence from 2012 after creation of required infrastructure and recruitment of manpower.

- (ii) Audiovisual media is multidisciplinary. A successful production requires putting all the divergence into a smooth and economic framework. To bring in efficient and professional managers having practical knowledge of media practices is essential. Those managers will also be able to bring in trade-related discipline and transparency that will help the productions in becoming economically viable and credible. Since this is an era of specialization, it is necessary to train and use the human resources as per requirement of the industry.

In view of the growing demand of specially trained manpower in Production Management in Films and Television, the Institute intends to start a two-year postgraduate diploma course in Production Management in Film and Television with an intake capacity of 10 students in each batch, from 2012, after creation of required infrastructure and recruitment of manpower.

- (iii) Receipt of Grants-in-aid from the Ministry is done through ECS. Some of the remittances and payments i.e., Telephone Bills etc. are paid through ECS. Various Ministerial correspondences are done through e-mail. Tender Notices etc. are displayed in the website of the Institute.
- (iv) SRFTI being an educational Institution, has got limited/specified role to play in the Society. However, during our admission process, effective campaign is undertaken on regular basis to ensure equal rights for persons with Disabilities. All the facilities like Auditorium, Hostel, medical etc. are equally accessible to the Persons with Disabilities (except persons with visual handicap and hearing impairment as the institute is for visual media). Internet room and Library are situated in the ground floor to enable easy and proper access to the persons with Disabilities. Regular workshops and discussions are held by the students and faculty to promote awareness among the public. SRFTI ensures reservation policy of the Govt. of India in Admission and Employment. There is equal opportunity in the Institute for persons with Disabilities.
- (v) Major functional activities have already being computerized by the use of ERP like Payment, Procurement, Production costing, Academic routine generation and Stock maintenance. Some of the activities are still in the implementation stage. This Computerization is expected to help the Institute in managing the major activities in a better fashion through integration of major functional activities.

Library automation by using RFID technology is likely to be implemented in the near future.

Achievements/ Planning of SRFTI

- (i) Introduction of two new courses on 'Animation' and 'Production Management in Films and Television' has already been approved by the Ministry of Information and Broadcasting. The construction work has already commenced. Tentative timeframe for completion of the Infrastructure for both the courses is 18 months. The said courses are scheduled to commence from 2012.
- (ii) Many Diploma and Documentary films directed by SRFTI students were selected for screening, nominated for awards and won prizes at different International film festivals. Notable among them are *Dayam* (Hindi), selected

fro screening in the Kiew Film Festival, Russia, 2009. *Pocha Apple* (Rotten Apple-English), Awarded first prize (Joint Winner) as best Diploma Film at the Campus France Film School Competition of Diploma Films organised by the Embassy of France in India and campus France, in January 2010.

- (iii) Computerization of all the activities of SRFTI is on the verge of completion. (by using ERP Software).
- (iv) SRFTI has become one of the permanent venues of Kolkata Film Festival.
- (v) A Film appreciation Programme by the faculty is organised every Saturday for students-Faculty Interactive dialogue session.
- (vi) A seminar series is conducted by each department regularly to probe into the complete aspects of film making facility in the light of contemporary professional practices.

INDIAN INSTITUTE OF MASS COMMUNICATION

The Indian Institute of Mass Communication (IIMC) registered as a society under the Societies Registration Act, 1860 (XXI of 1860) came into existence on 17 August 1965. The Institute, inaugurated by the former Prime Minister of India and the then Minister of Information and Broadcasting, Smt. Indira Gandhi, was established with the basis objective of undertaking teaching, training and research in the area of mass communication.

Beginning with a modest staff strength, including two Consultants from UNESCO, and organizing training courses mainly for Central Information Service Officers and undertaking research studies on a small scale, the Institute, over the last about 42 years, has graduated into conducting a number of specialized courses for meeting the diverse and demanding requirements of the rapidly expanding and changing media and communication sector in modern times.

As of today, the Institute conducts a number of Post-graduate Diploma Courses in Print Journalism, Radio and TV Journalism and Advertising and Public Relations. Beginning in 1969, the Institute has organized a Post-graduate Diploma Course in Development Journalism for middle level working journalists from Afro-Asian countries under the auspices of the Ministry of External Affairs. A number of specialized short-term Courses ranging from one week to twelve weeks are also organized to meet the ever-growing training needs of communication professionals working in various media/publicity outfits of Central/State Governments and Public Sector Organizations. In addition, the Institute also collaborates with different national and international agencies in conducting training programmes, seminars, workshops, etc. and in undertaking research projects.

The Institute endeavours to contribute towards the creation and strengthening of an information structure suitable not only for Indian requirements, but also those of other developing countries. It provides its expertise and consultancy services to other institutions/organs of the Central/State Governments, Public Sector Organizations, Universities and other Academic Institutions.

With the growing popularity of the Institute's training activities and with a view to meeting regional aspirations, the Institute opened a branch at Dhenkanal, Orissa in 1993 for catering to the demands of the eastern region. At present, the Branch conducts two Post Graduate Diploma Courses: Journalism (English) and Journalism (Oriya).

The Government of India, through the Ministry of Information and Broadcasting makes financial support to the Institute available. The activities of the Institute are guided by its Executive Council, whose Chairman (Ex Officio) is the Secretary in the Ministry who is also the President of the Institute (Society). The other members of the Council include *inter-alia* representatives of the Institute's Faculty and eminent personalities from the world of media.

Through its continuous hard work over the last more than four decades of its existence and excellent delivery mechanism, the Institute has achieved the enviable position of a "Centre of Excellence" in the area of communication teaching, training and research.

Teaching and Training programmes:

The academic and training activities of the Institute can be divided into four programmes:

I Post-graduate Diploma programmes for students. These comprise four programmes in Journalism and one in Advertising and Public Relations:

1. Post-graduate Diploma Course in Journalism-English
2. Post-graduate Diploma Course in Journalism-Hindi
3. Post-graduate Diploma Course in Journalism-Oriya
4. Post-graduate Diploma Course in Radio and TV Journalism-English and Hindi
5. Post-graduate Diploma Course in Advertising and Public Relations (English and Hindi)

II. Programmes for officers of Indian Information Service

1. Foundation Course in communication for officers of the Indian Information Service Group-'A'
2. Orientation Course for officers of the Indian Information Service Group 'B'

III. Programme for candidates from development countries

Diploma Course in Development Journalism.

This four months Diploma Course is highly sought after by mid career level working journalists in Africa, Asia and Latin America and other developing countries. The average intake of participants is 20-25 per batch. The Institute organizes two such courses each year. So far nearly 1164 journalists from 106 countries have benefited from this training programme. The programme is sponsored by the Ministry of External affairs.

IV. Short-term Courses, Workshop, Seminars and Conferences:

With a view to contributing towards better understanding of different issues pertaining to mass communication in the context of India and other developing countries and in order to increase awareness about the emerging techniques and sharpening their basic skills, the Institute has been organizing a variety of short-term courses, workshops, seminars and conferences in various areas of communication and media.

The Institute runs regular short-term academic programmes for personnel of different media units of the Ministry of Information and Broadcasting. A number of

specialized short-term courses, ranging from one week to 12 weeks' duration, are also conducted for meeting the professional training needs of Defence Officials and those working in various media/publicity organizations of the Central/State Governments and Public Sector Enterprises.

Since its inception, the Institute has organized a total of 544 such Courses, with the participation of 11,692 persons, both from India and abroad.

Apna Radio AR-I

Community Radio: The Institute community Radio broadcasts on 96.9 MHz five days a week for two hours each day from 12.00 Noon to 2.00 p.m. with a repeat broadcast from 3.00 p.m. to 5.00 p.m. Apna Radio has a range of 10-12 km around the Institute. The FM radio station has a broadcast studio, two recording studios and several sound editing workstations.

BROADCAST ENGINEERING CONSULTANTS INDIA LIMITED

Broadcast Engineering Consultants India Ltd. (BECIL) a profit making PSE was constituted on 24 March 1995 to provide the national broadcasters' expertise to the private broadcasters in India. At present, BECIL is an established consultancy agency, system integrator and turnkey solution provider in all spheres of Broadcast Engineering-BECIL also undertakes operation and maintenance of various types of broadcast systems. BECIL has been offering services in India and Overseas. BECIL's clients include Government, Semi Government, Overseas and Private organisations.

With the opening of Broadcasting sector after the Gulf War a need was felt to broadcast via satellite. This necessitated an expert agency to advise prospective Company/Department in the field of broadcasting Engineering. Such expertise till then was available with AIR and Doordarshan only. As such MIB decided to incorporate one such agency for the purpose of providing consultancy in the specialized field of Broadcast Engineering. Thus BECIL was formed with a small Authorized Capital of ₹ 250 Lakh (Paid up Equity is ₹ 136.50 Lakh)

Area of Specialisation

The are of Specialisation of BECIL is as follows:

- Establishment of Radio and TV Transmitting facility including frequency and coverage planning, prediction etc.
- Setting up state-of-the-art studio facilities for Audio and Video including Ethernet connectivity capable of transmitting live content and data.
- Establishment of Cable TV systems and HITs (Head End in The Sky) and Wireline Broadcasting.
- Turnkey Solution for Establishing Community Radio Stations.
- Establishment from concept to commissioning of Electronic Media Monitoring solutions (Radio and TV Terrestrial or Satellite.) and security related Surveillance Set ups for GSM, CDMA and VSAT.
- Sales and support for all type of broadcast engineering equipment/system.
- Design and integration of outside broadcast vans (DSNG) with state-of-the-art technology.
- Providing professionals for O&M of broadcast stations, TV studios, satellite earth stations, Electronic Media Monitoring Centre.

- Supply and support for various type of monitoring, interception and encryption, decryption devices for forces and intelligence agencies.

Major Key Achievements

The major key achievements are as under:

- Establishment of Multiplexed FM Transmission at 87 centres across the country for 245 Private FM Channels of Phase-II scheme as System Integrator.
- Revamping and Restoration of Print Media, Radio and Television Network in Afghanistan.
- Design and establishment of State-of-the-Art Electronic Media Monitoring Centre for 24x7x365 monitoring and logging of 300 Satellite TV channels.
- Established a TV Channel in Kabul for TSI, USA in 120 days.
- Involved in setting up of 16 out of 22 Private FM Stations that have come up in India in FM Phase-I.
- Designed, integrated and supplied Ku/C-band vehicle mounted DSNG van to Doordarshan India.
- Installation and commissioning of 160 Cable Head Ends in the difficult terrain of NE Region for Doordarshan India.
- Supply and commissioning of GSM/ CDMA surveillance system to Haryana Police, Assam Rifles and Assam Police.
- Supply of security equipment like Laser Range Finder, Non-Linear Junction Detector, Real Time Viewing System, VSAT Monitoring etc. to Para Military, Military, State Police Depts. etc.
- Establishment of TV studio for IGNC A, Edusat set up for Delhi Technical University and Sangeet Natak Academy.
- Operation and maintenance of studios and uplinks for ANSSIRD, Mysore, CES IGNOU, New Delhi, SRSAC studios and Earth Station at Jaipur, TV studios of RCI, New Delhi, TV studios of IGNC A, New Delhi.
- Conformity of CATV (non CAS area) broadcasting network to Indian Standards.
- Establishment of 16 out of 22 private FM stations in India in Phase-I.
- Establishment of Disaster Warning System for fishermen of Gujarat.
- Interior Design, architectural Acoustics and Electro Acoustics for Indian Parliament Library, Delhi and Rajasthan Vidhan Sabha, Jaipur.

23 Planning

PLANNING in India derives its objectives and social premises from the Directive Principles of State Policy enshrined in the Constitution. Public and private sectors are viewed as complementary. The private sector covers, besides organised industry, small-scale industries, agriculture, trade and housing, construction and related areas. Individual efforts and private initiatives are considered necessary and desirable in the national endeavour for development with optimum voluntary cooperation.

The Planning Commission was set up by a Resolution of the Government of India in March 1950 in pursuance of declared objectives of the Government to promote a rapid rise in the standard of living of the people by efficient exploitation of the resources of the country, increasing production and offering opportunities to all for employment in the service of the community. The Planning Commission was charged with the responsibility of making assessment of all resources of the country augmenting deficient resources, formulating plan for the most effective and balanced utilisation of resources and determining priorities. Jawaharlal Nehru was the first chairman of the Planning Commission.

At Present Prime Minister of India, Dr. Manmohan Singh is the Chairman of the Planning Commission and Shri Montek Singh Ahluwalia is its Deputy Chairman. Shri V. Narayansamy, Minister of State for Planning, is the ex-officio member of the Planning Commission. Other members are Shri B.K. Chaturvedi, Shri Saumitra Chaudhri, Dr. (Ms.) Syeda Hameed, Dr Narendra Jadhav, Prof. Abhijit Sen, Dr. Mihir Shah, Dr. K. Kasturirangan and Shri Arun Maira.

The first Five-year Plan was launched in 1951 and two subsequent five-year plans were formulated till 1965, when there was a break because of the Indo-Pakistan Conflict. Two successive years of drought, devaluation of the currency, a general rise in prices and erosion of resources disrupted the planning process and after three Annual Plans between 1966 and 1969, the fourth Five-Year plan was started in 1969.

The Eighth Plan could not take off in 1990 due to the fast changing political situation at the Centre and the years 1990-91 and 1991-92 were treated as Annual Plans. The Eighth Plan was finally launched in 1992 after the initiation to structural adjustment policies.

For the first eight Plans the emphasis was on a growing public sector with massive investments in basic and heavy industries, but since the launch of the Ninth Plan in 1997, the emphasis on the public sector has become less pronounced and the current thinking of planning in the country in general is that it should increasingly be of an indicative nature.

FIRST PLAN

Keeping in view the large-scale import of foodgrains in 1951 and inflationary pressures on the economy, the First Plan (1951-56) accorded the highest priority to agriculture including irrigation and power projects. About 44.6 per cent of the total outlay of ₹ 2,069 crore in the public sector (later raised to ₹ 2,378 crore) was allocated for this purpose. The Plan aimed at increasing the rate of investment from five to about seven per cent of the national income.

SECOND PLAN

The Second Five-Year Plan (1956-57 to 1960-61) sought to promote a pattern of development, which would ultimately lead to the establishment of a socialistic pattern of society in India. Its main aims were (i) an increase of 25 per cent in the national income; (ii) rapid industrialisation with particular emphasis on the development of basic and heavy industries; (iii) large expansion of employment opportunities; and (iv) reduction of inequalities in income and wealth and a more even distribution of economic power. The Plan aimed at increasing the rate of investment from about seven per cent of the national income to 11 per cent by 1960-61. It laid emphasis on industrialisation, increased production of iron and steel, heavy chemicals including nitrogenous fertilizers and development of heavy engineering and machine building industry.

THIRD PLAN

The Third Plan (1961-62 to 1965-66) aimed at securing a marked advance towards self-sustaining growth. Its immediate objectives were to: (i) secure an increase in the national income of over five per cent per annum and at the same time ensure a pattern of investment which could sustain this rate of growth in the subsequent Plan periods; (ii) achieve self-sufficiency in foodgrains and increase agricultural production to meet the requirements of industry and exports; (iii) expand basic industries like steel, chemicals, fuel and power and establish machine building capacity so that the requirements of further industrialisation could be met within a period of about 10 years mainly from the country's own resources; (iv) fully utilise the manpower resources of the country and ensure a substantial expansion in employment opportunities; and (v) establish progressively greater equality of opportunity and bring about reduction in disparities of income and wealth and a more even distribution of economic power. The Plan aimed at increasing the national income by about 30 per cent from ₹ 14,500 crore in 1960-61 to about ₹ 19,000 crore by 1965-66 (at 1960-61 prices) and per capita income by about 17 per cent from ₹ 330 to ₹ 386 over the same period.

ANNUAL PLANS

The situation created by the Indo-Pakistan conflict in 1965, two successive years of severe drought, devaluation of the currency, general rise in prices and erosion of resources available for Plan purposes delayed the finalisation of the Fourth Five Year Plan. Instead, between 1966 and 1969, three Annual Plans were formulated within the framework of the draft outline of the Fourth Plan.

FOURTH PLAN

The Fourth Plan (1969-74) aimed at accelerating the tempo of development of reducing fluctuations in agricultural production as well as the impact of uncertainties of foreign aid. It sought to raise the standard of living through programmes designed to promote equality and social justice. The Plan laid particular emphasis on improving the conditions of the less privileged and weaker sections especially through provision of employment and education. Efforts were directed towards reduction of concentration of wealth, income and economic power to promote equity.

The Plan aimed at increasing the net domestic product (at 1968-69 factor cost) from ₹ 29,071 crore in 1969-70 to ₹ 38,306 crore in 1973-74. The average annual compound rate of growth envisaged was 5.7 per cent.

FIFTH PLAN

The Fifth Plan (1974-79) was formulated against the backdrop of severe inflationary pressures. The major objectives of the Plan were to achieve self-reliance and adopt measures for raising the consumption standard of people living below the poverty line. This Plan also gave high priority to bring inflation under control and to achieve stability in the economic situation. It targeted an annual growth rate of 5.5 per cent in the national income. Four Annual Plans pertaining to the Fifth Plan period were completed. It was subsequently decided to end the Fifth Plan period with the close of the Annual Plan 1978-79.

SIXTH PLAN

Removal of poverty was the foremost objective of the Sixth Plan (1980-85). The strategy adopted was to move simultaneously towards strengthening the infrastructure for both agriculture and industry. Stress was laid on tackling inter-related problems through a systematic approach with greater management, efficiency and intensive monitoring in all sectors and active involvement of people in formulating specific schemes of development at the local level and securing their speedy and effective implementation.

The actual expenditure in the Sixth Plan stood at ₹ 1,09,291.7 crore (current price) as against the envisaged total public sector outlay of ₹ 97,500 crore (1979-80 prices) accounting for a 12 per cent increase in nominal terms. The average annual growth rate targeted for the Plan was 5.2 per cent.

SEVENTH PLAN

The Seventh Plan (1985-90) emphasised policies and programmes, which aimed at rapid growth in foodgrains production, increased employment opportunities and productivity within the framework of basic tenets of planning, namely, growth, modernisation, self-reliance and social justice. Foodgrains production during the Seventh Plan grew by 3.23 per cent as compared to a long-term growth rate of 2.68 per cent between 1967-68 and 1988-89 and the growth rate of 2.55 per cent in the eighties due to overall favourable weather conditions, implementation of various thrust programmes and concerted efforts of the Government and the farmers. To reduce unemployment and consequently, the incidence of poverty, special programmes like Jawahar Rozgar Yojana were launched in addition to the existing programmes. Due recognition was accorded to the role, small-scale and food processing industries could play in this regard. The total expenditure during the entire Seventh Plan stood at ₹ 2,18,729.62 crore (current prices) as against the envisaged total public sector outlay of ₹ 1,80,000 crore, resulting in a 21.52 per cent increase in nominal terms. During this Plan period, the Gross Domestic Product (GDP) grew at an average rate of 5.8 per cent exceeding the targeted growth rate by 0.8 per cent.

ANNUAL PLANS

The Eighth Five-Year Plan (1990-95) could not take off due to the fast-changing political situation at the Centre. The new Government, which assumed power at the Centre in June 1991, decided that the Eighth Five-Year Plan would commence on 1st April 1992 and that 1990-91 and 1991-92 should be treated as separate Annual Plans. Formulated within the framework of the Approach to the Eighth Five-Year Plan (1990-95), the basic thrust of these Annual Plans was on maximisation of employment and social transformation.

EIGHTH PLAN

The Eighth Five-Year Plan (1992-97) was launched immediately after the initiation of structural adjustment policies and macro stabilisation policies, which were necessitated by the worsening Balance of Payments position and the position of inflation during 1990-91. The various structural adjustment policies were introduced gradually so that the economy could be pushed to a higher growth path and improve its strength and thus prevent a crisis in Balance of Payments and inflation in the future. The Eighth Plan took note of some of these policy changes, which were to come about due to these reforms. The Plan aimed at an average annual growth rate of 5.6 per cent and an average industrial growth rate of about 7.5 per cent. These growth targets were planned to be achieved with relative price stability and substantial improvement in the country's Balance of Payments.

Some of the salient features of economic performance during the Eighth Five-Year Plan indicate, among other things, (a) a faster economic growth, (b) a faster growth of the manufacturing sector and agriculture and allied sectors, (c) significant growth rates in exports and imports, improvement in trade and current account deficit and a significant reduction in the Central Government's fiscal deficit. However, a shortfall in expenditure in the Central sector due to inadequate mobilisation of internal and extra budgetary resources by the PSUs and various departments was witnessed. In the States sector, the reason for the shortfall was lack of mobilisation of adequate resources due to deterioration in the balance of current revenues, erosion in the contribution of state electricity boards and state road transport corporations, negative opening balance, mounting non-Plan expenditure and shortfalls in the collection of small savings, etc.

The total expenditure during the entire Eighth Plan stood at ₹ 4,95,669 crore [by taking 1996-97 (RE) as actual] at current prices as against envisaged total public sector outlay of ₹ 4,34,100 crore (1991-92 prices) resulting in a 14.2 per cent increase in nominal terms. The Eighth Plan envisaged an annual average growth rate of 5.6 per cent. Against this an average annual growth rate of 6.8 per cent was achieved during this plan period.

NINTH PLAN

The Ninth Plan (1997-2002) was launched in the fiftieth year of India's Independence. The Plan aimed at achieving a targeted GDP growth rate of seven per cent per annum and there was emphasis on the seven identified Basic Minimum Services (BMS) with additional Central Assistance earmarked for these services with a view to obtaining a complete coverage of the population in a time-bound manner. These included provision of safe drinking water, availability of primary health service facilities, universalisation of primary education, public housing assistance to shelter-less poor families, nutritional support to children, connectivity of all villages and habitations and streamlining of the public distribution system with a focus on the poor. The Plan also aimed at pursuing a policy of fiscal consolidation, whereby the focus was on sharp reduction in the revenue deficit of the Government, including the Centre, States and PSUs through a combination of improved revenue collections and control of inessential expenditures, particularly with regard to subsidies and through recovery of user charges and decentralisation of planning and implementation through greater reliance on States and Panchayati Raj Institutions.

The Specific objectives of the Ninth Plan included: (i) priority to agriculture and rural development with a view to generate adequate productive employment and

eradication of poverty; (ii) accelerating the growth rate of the economy with stable prices; (iii) ensuring food and nutritional security for all, particularly the vulnerable sections of society; (iv) providing the basic minimum services of safe drinking water, primary health care facilities, universal primary education, shelter, and connectivity to all in a time-bound manner; (v) containing the growth rate of population; (vi) ensuring mobilisation and participation of people at all levels; (vii) empowerment of women and socially disadvantaged groups such as Scheduled Castes, Scheduled Tribes and Other Backward Classes and minorities as agents of socio-economic change and development; (viii) promoting and developing people's participatory institutions like Panchayati Raj Institutions, cooperatives and self-help groups; and (ix) strengthening efforts to build self-reliance.

The Ninth Plan envisaged an average target growth rate of 6.5 per cent per annum in GDP as against the growth rate of 7 per cent approved earlier in the Approach Paper. The scaling down of the target was necessitated by the changes in the national as well as global economic situation in the first two years of the Ninth Plan. Against this, the achievement in the growth-rate on an average was to be 5.5 per cent per annum.

TENTH FIVE-YEAR PLAN

The Tenth Five-Year Plan (2002-07) was approved by the National Development Council on 21st December 2002. The Plan has further developed the NDC mandate objectives, of doubling the per capita income in ten years and achieving a growth rate of eight per cent of GDP per annum. Since economic growth is not the only objective, the Plan aims at harnessing the benefits of growth to improve the quality of life of the people by setting the following key targets: Reduction in the poverty ratio from 26 per cent to 21 per cent, by 2007; Decadal Population Growth to reduce from 21.3 per cent in 1991-2001 to 16.2 per cent in 2001-11; Growth in gainful employment, at least, to keep pace with addition to the labour force; All children to be in school by 2003 and all children to complete five years of schooling by 2007; Reducing gender gaps in literacy and wage rates by 50 per cent; Literacy rate to increase from 65 per cent in 1999-2000, to 75 per cent in 2007; Providing potable drinking water to all villages; Infant Mortality Rate to be reduced from 72 in 1999-2000, to 45 in 2007; Maternal mortality ratio to be reduced from four in 1999-2000, to two in 2007; Increase in Forest/Tree cover from 19 per cent in 1999-2000, to 25 per cent in 2007; and Cleaning of major polluted river stretches.

The Tenth Plan has a number of new features, that include, among others, the following :

Firstly, the Plan recognises the rapid growth in the labour force. At current rate of growth and labour intensity in production, India faces the possibility of rising unemployment, which could lead to social unrest. The Tenth Plan therefore aims at creating 50 million job opportunities during the period, by placing special emphasis on employment intensive sectors of agriculture, irrigation, agro-forestry, small and medium enterprises, information and communication technology and other services.

Secondly, the Plan addresses the issue of poverty and the unacceptably low levels of social indicators. Although these have been the objectives in earlier Plans, in the current Plan there are specific monitorable targets, which will need to be attained along with the growth target.

Thirdly, since national targets do not necessarily translate into balanced regional development and the potential and constraints of each State differ vastly, the Tenth Plan has adopted a differential development strategy. For the first time a statewide growth and other monitorable targets have been worked out in consultation with the States to focus better on their own development plans.

Another feature of this Plan is the recognition that Governance is perhaps one of the most important factors for ensuring that the Plan is realised, as envisaged. The Plan has laid down a list of reforms in this connection.

Finally, considering the present market-oriented economy, the Tenth Plan has dwelt at length on the policies that would be necessary and the design of key institutions. The Tenth Plan not only includes a carefully crafted medium-term macro-economic policy stance, both for the Centre and the States, but also lays out the policy and institutional reforms that are required for each sector.

The incremental capital-output ratio (ICOR) of the economy is likely to come down to about 3.6 as against 4.5 during the Ninth Plan. This decline in ICOR is to be achieved mainly through better utilisation of existing capacities and suitable sectoral allocation of capital and its efficient utilisation. The growth target, therefore, would require an investment rate of 28.4 per cent of GDP. This requirement will be met from domestic savings of 26.8 per cent of GDP and external savings of 1.6 per cent. The bulk of the additional domestic savings will have to come from reduction in Government dissavings from -4.5 (2001-02) to -0.5 per cent (2006-07) of GDP.

The Tenth Plan has identified measures to improve efficiency, unleash entrepreneurial energy and promote rapid and sustainable growth. Agriculture is to be the core element of the Tenth Plan. Key reforms for the agriculture sector include: Eliminating inter-state barriers to trade and commerce; Essential Commodities Act to be amended; Amending Agriculture Produce Marketing Act; Liberalising agri-trading, agri-industry and exports; Encouraging contract farming and permitting leasing in and leasing out of agriculture lands; Replacement of various acts dealing with food by one comprehensive 'Food Act'; Permit futures trading in all commodities; Removal of restrictions on financing of stocking and trading.

Some other key reform measures include repeal of SICA, and strengthening bankruptcy and foreclosure laws to facilitate transfer of assets; Reform of labour laws; Policy reforms for village and small scale sectors to improve credit, technology, marketing and skill availability, and a phased dereservation of small scale industries; Early enactment of Electricity Bill; Coal Nationalisation Amendment Bill and Communication Convergence Bill, Abolish restrictions and encourage decontrol of private road transport passenger services and private sector participation in road maintenance; Early adoption of a Civil Aviation Policy, establishment of a regulatory framework for the sector and development of major airports with active private participation. Likewise, the growing regional imbalances are a matter of concern and the Plan aims at promoting a balanced and equitable regional development. The Plan gives a statewide break-up of the targets in order to provide the requisite focus. The need for urgent policy and administrative reforms has also been recognised.

Governance is perhaps one of the most important factors for ensuring that the Plan is realised, as envisaged. Some steps required in this direction are: Improved people's participation, especially through strengthening Panchayat Raj Institutions and urban local bodies; Involvement of civil society, especially voluntary organisations, as partners in development; Enactment of the Right to Information

Act; Civil Service reforms for improving transparency, accountability and efficiency; security of tenure, a more equitable system of rewards and punishments; Right sizing both the size and role of Government; Revenue and judicial reforms and using information technology for good governance.

The average growth rate in the last four years of the 10th Plan (2003-04 to 2006-07) was little over 8 per cent, making the growth rate 7.7 per cent for the entire 10th plan period. Though this was below the 10th Plan target of 8 per cent, it is the highest growth rate achieved in any plan period.

ELEVENTH FIVE YEAR PLAN

The Eleventh Five Year Plan (2007-12) which was approved by the National Development Council on 19 December, 2007 provides a comprehensive strategy for inclusive development, building on the growing strength of the economy, while also addressing weaknesses that have surfaced. It sets a target for 9 per cent growth in the five year period with acceleration during the period to reach 10 per cent by the end of the plan. It also covers 26 other major indices of performance relating to poverty, health, education, women and children, infrastructure, and environment and sets monitorable targets in each of these.

This plan outlines the new priorities for the public sector. These relate to reviving dynamism in agriculture and building the necessary supportive infrastructure in rural areas, expanding access to health and education, especially in rural areas, undertaking programmes for improving living conditions for the weaker section and for improving their access to economic opportunity. It also includes a major thrust for infrastructure development in general, which is a critical constraint on our development.

The plan adopts multi-pronged approach towards improvement in Agriculture. It provides a major expansion in the programmes of irrigation and water management. As a step towards food security, the National Food Security Mission aims at increasing cereal and pulses production by 20 million tons over a five year period.

There is a massive thrust in this Plan on access to education and health. In education the Plan will spend more than double of what was spent in the tenth plan. In health, the Plan aims at providing improved broad based health care in rural areas through the National Rural Health Mission. The Rashtriya Swasthya Bima Yojana will provide the much needed insurance cover against illness to the population below the poverty line.

The Plan emphasizes the need for energy conservation, increasing energy efficiency, and development of renewable sources of energy.

An important aspect of the Eleventh Plan is that most of the public sector programmes are in the areas that are normally in the domain of the State Governments and where implementation depends upon the active involvement of local level bodies including the Panchayati Raj Institutions, More than any other Plan, this Plan places a much greater reliance upon the involvement of the Panchayati Raj Institutions.

Achievements : During the period from 1950-51 to 2002-03, the national income - Net National Product (NNP) had increased 8.7 times from ₹ 1,32,367 crore to ₹ 11,56,714 crore (at 1993-94 prices) implying a compound growth rate of 4.2 per cent per annum. The per capita income (NNP) had increased three times from ₹ 3,687 to ₹ 10,964 (at 1993-94 prices) registering a compound growth rate of 2.1 per cent—all the aggregates measured at factor cost at 1993-94 prices.

The following table gives the growth performance of the Indian economy in terms of GDP, relative to the targets set in the various Plans right since the inception of planning in India. The economy has performed better than the target in five of the nine previous plans, and even in the Second Plan, the gap was not large. As far as the Third and Fourth Plans are concerned, the shortfalls were largely due to severe exogenous shocks that could not possibly have been predicted including the drought years of 1965 and 1966 and the Indo-Pakistan War of 1965. The Fourth Plan experienced three consecutive years of drought (1971-73) and the first shock of rises in oil-price of 1973. More importantly, since the Fourth Plan, the growth rate of the economy had improved steadily until the Ninth Plan, when it received a setback. Thus, the evidence suggests that the track record of planning in India has been reasonably good and indeed tends to err on the side of caution.

GROWTH PERFORMANCE IN THE FIVE-YEAR PLANS

(per cent per annum)

Sl.No.	Plan	Target	Actual
1.	First Plan (1951-56)	2.1	3.60
2.	Second Plan (1956-61)	4.5	4.21
3.	Third Plan (1961-66)	5.6	2.72
4.	Fourth Plan (1969-74)	5.7	2.05
5.	Fifth Plan (1974-79)	4.4	4.83
6.	Sixth Plan (1980-85)	5.2	5.54
7.	Seventh Plan (1985-90)	5.0	6.02
8.	Eighth Plan (1992-97)	5.6	6.68
9.	Ninth Plan (1997-2002)	6.5	5.5
10	Tenth Plan (2002-2007)	8	7.7

Note: The growth targets for the first three Plans were set with respect to National Income. In the Fourth Plan it was the Net Domestic Product. In all Plans thereafter, it has been the Gross Domestic Product at factor cost.

AGRICULTURE

Agriculture contributes approximately one-fifth of total gross domestic product (GDP). It provides the means of livelihood to about two-thirds of the country's population. The Sector provides employment to 58.4 per cent of the country's work force and is the single largest private sector occupation. Agriculture accounts for about 10 per cent of the total export earnings and provides raw material to a large number of industries. Besides, the rural areas are the biggest markets for consumer goods, including consumer durables, apart from a major source of domestic savings. Above all, agriculture is the only source of food security for the nation.

Foodgrains production based on 4th Advance Estimates for 2008-09 amounts to 233.88 million tonnes, which is an all time record. However, there is a slight decline in growth rate than the previous year mainly due to an estimated decline in production of coarse cereals, pulses, and oil seed. Deficit rainfall during the southwest monsoon has affected the Kharif Agriculture Operations during the current year, mainly paddy. Besides, favourable weather conditions, the investment by Government through higher

allocation of resources and introduction of new initiatives such as NFSM, RKVY, NHM etc. have contributed towards higher production in these years.

The estimated production of various crops during 2008-09 is estimated at rice at a record level of 99.15 million tonnes, wheat as 80.48 million tonnes as 14.66 million tonnes, oilseeds as 28.16 million tonnes, cotton as 23.16 million bales (of 170 kg each) and sugarcane as 273.93 million tonnes.

Milk production during the year 2008-09 was estimated at 110.0 million tonnes registering an average growth rate of 4.56 per cent. India is the highest producer of milk in the world and resulted in per capita availability of milk of 252 grams per day. Poultry development has taken a quantum leap and the egg production is estimated at 46.03 million nos. in the year 2008-09 with an average annual growth rate of 6.84 per cent. Fish production was 7.6 million tonnes in 2008-09, which includes 2.99 million tonnes of marine and 4.61 million tonnes of inland fisheries. During the period from 2005-06 to 2008-09 an additional area of 12.59 lakh Ha were brought under horticulture development. A total of 1935 new nurseries to developed with the rejuvenation of old/senile plantations in 2.06 lakh Ha. Under Post Harvest management (PHML), 1109 units of pack houses/cold storages were established. Fostering rapid and sustained agricultural growth remained a priority agenda of the Government. In order to disseminate agricultural technologies, priority was given for the establishment of Agricultural Technology Management Agencies (ATMAs), agriculture clinics/agri-business and Krishi Vigyan Kendras (KVKs.) National Food Security Mission (NFSM) has been launched with a view to ensure food security of the country. A major programme of Rashtriya Krishi Vikas Yojana (RKVY) has been launched to encourage States to provide higher expenditure to the agriculture and allied sectors like Animal Husbandry and Fisheries and prepare agricultural Plans at the grass root levels through Comprehensive District Agriculture Plan.

To improve water management through enhanced water use efficiency by the use of drip and sprinkler-irrigation systems a new programme of Micro-Irrigation is being implemented. Significant agricultural marketing reforms were initiated. Kissan Call Centres were established to enable farmers to get expert advice on agriculture related issues and problems.

POWER

In the Power sector, the total installed capacity has increased manifold from 1, 362 MW in 1947 to 1, 48, 265. 41 MW by the end of April 2009, comprising 94,025.34 MW thermal, 4,120.00 MW Nuclear, 16,877.76 MW Hydro and 11,242.41 MW Renewable Energy sources. The Central Sector's share in generation has increased from 12 per cent in 1979 to 13.03 per cent at the end of April 2009 and that of the Private Sector from 5.2 per cent to 16 per cent. On the other hand the share of the State Sector has declined from 82.5 per cent to 51.34 per cent during the same period. The annual per capita annual consumption of electricity in the country is 704.3KWH.

Under the rural electrification programme out of 5,93, 732 villages about 4,89, 532 villages (or 82.4 per cent) have been electrified by the end of March 2009.

MINERAL SECTOR

The accelerated growth rate in India warrants a rapid development of mining sector on which most of the basic industries in the manufacturing sector depend. With increasing competition on account of globalization and the level of technology involved, initiatives for growth in the mining sector have assumed critical significance.

It has been endeavoured to encourage greater investment in exploration and mining by opening up the sector for private investment. However, there is a need to make coordinated efforts to remove bottlenecks which hinder the productivity and efficiency of this sector. Recognizing this need and to further improve the investment climate for mining in the country, the Planning Commission set up a High Level Committee on 14 September 2005 under the Chairmanship of Shri Anwarul Hoda, the then Member, (Industry), Planning Commission to review the National Mineral Policy and recommend possible amendments to the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR Act). The High Level Committee submitted its report to the Government on 19th July, 2006 with recommendations on changes in the National Mineral Policy in attune it to the present requirements of the world economy for evolving of a mining code adapted to the best international practices, streamlining and simplifying of procedures for grant of mineral concessions to reduce delays, strengthening the infrastructure for mining activities and recommendations on other issues for improving the environment for investment in the mining sector. Based on the recommendations of High Level Committee and after intensive consultations with State Governments, and concerned Ministries/Departments of Central Government, a new National Mineral Policy, 2008 has been approved by the Government.

Keeping in view the goals and objectives outlined in the National Common Minimum Programme of the Government and the strategies of the Eleventh Five Year Plan an outlay of ₹ 1647.822160 crore comprising ₹ 200 crore as Gross Budgetary Support (GBS) and ₹ 1447.82 crore internal and extra budgetary resources (IEBR) has been allocated to the Ministry of Mines for Annual Plan 2009-10. Of the total outlay, an amount of ₹ 17.90 crore has been earmarked for North Eastern Region (NER).

EDUCATION

Education is the most crucial investment in human development. Over the decades, considerable progress has been achieved in terms of literacy, school enrolment, network of schools and spread of institutions for higher education including technical education. The literacy rate has gone up from 18.33 per cent in 1951 to 64.84 per cent in 2001. The decade of 1990s has been a watershed for basic education as the Census 2001 showed 12.63 percentage point increase in literacy, the highest since 1951. The Gross Enrolment Ratio (GER) at primary level has increased from 42.6 per cent in 1950-51 to 111.24 per cent in 2006-07. Similarly, for upper primary, it has gone up from 12.7 per cent to 73.63 per cent for the corresponding period.

The number of schools has increased by more than three folds from 2.10 lakh to about 7.57 at primary level and twenty one -fold from 13,600 to 3.00 lakh at upper primary level. As per the Seventh all India Educational Survey (2002), nearly 87 per cent of the 12.37 lakh habitations in the country were served with primary schools within a distance of one kilometer. In 2007-08, this had gone up to 98 per cent. In habitations not covered by regular schools, EGS/AIE centres have been set up and access to schooling has been almost universalized in all States/UTs. The total number of elementary teachers increased from 6.24 lakh in 1950-51 to 38.89 lakh in 2006-07, i.e., registering an increase of more than six times. The number of female teachers increased from 0.95 lakh to 15.56 lakh in the corresponding period.

Notwithstanding the phenomenal increase in provisioning of basic education facilities and services, some gaps continue to persist. Although, the dropout rate at

elementary level has declined from 78.3 in 1960-61 to 46.03 percent in 2006-07 it is still very high. The quality of education too requires improvement and there are gender, social and regional disparities. Besides, there are various systemic issues like inadequate infrastructure and devivery of services, teacher vacancies, teacher absenteeism and poor laboratory and library facilities. The number of out-of-school children has reduced steadily since 2002-03. This number came down to 1.35 crore in November 2005 and further to 45 lakh in March 2008. It is envisaged that the Eleventh Plan, besides carrying over the unfinished agenda of the Tenth Plan, will address these major challenges including bridging regional, social and gender gaps at all levels of education.

The thrust areas in the Ninth Five Year Plan included *Universalisation of Elementary Education (UEE)*, adult literacy, raising the quality of education at all levels and improving learner achievement. Elementary education was given the highest priority reiterating the country's strong resolve to achieve the goal of *Education for All (EFA)* during the Plan period. This was sought to be achieved through several measures including amendment to the Constitution of India making elementary education a fundamental right, decentralisation of planning, supervision and management of education through local bodies, social mobilisation for adult literacy, developing a stronger partnership with NGOs and provision of opportunities for adult literacy and for non-formal and alternative education for out-of-school children in the most backward areas and for the unreached segments of the population. The major initiatives taken to bring about quantitative and qualitative improvement in elementary education included Operation Black Board, Non-formal Education Programme, Teacher's Education, District Primary Education Programme (DPEP), National Programme of Nutritional Support to Children of Primary Education popularly known as Mid-Day Meal Scheme.

The Tenth Plan Five Year Plan while caryying forward the policies of the National Policy on Education (NPE) 1986, as modified by the Plan of Action (POA) 1992, laid down specific Monitorable Targets in the area of education and envisaged improvement in access and quality of achieving UEE was designed with a holistic approach as the existing policies and programmes were either for specific target groups/regions (Lok Jumbish) or aspects (Operation Blackboard, which mainly targeted the school infrastructure). An all-comprehensive programme, Sarva Shiksha Abhiyan (SSA), launched in November 2000 covering the entire country, will be the main vehicle for achieving the goals of UEE. The scheme has been the main vehicle for achieving the goals of UEE. The scheme has a special focus on educational needs of girls, economically and socially deprived segments and children in difficult circumstances.

Sarva Shiksha Abhiyan is a major flagship programme implemented by the Government of India in a mission mode in partnership with the State Governments through directs level decentralized management framework involving local bodies. It envisages free and compulsory education for all children for the age group 6-14. SSA encompasses all activities relating to school education, viz, providing physical infrastructure, free text books for children, encouraging the enrolment of the students, teacher education and their training, etc. The programme addresses the needs of about 20 crore children in over 12 lakh habitations through 10.57 lakh existing primary and upper primary schools and non-formal education centres (EGS/AIE). The objectives of Sarva Shiksha Abhiyan are as follows:

- All children to be in regular school, Education Guarantee Centre (EGS), Alternate School (AIE) or 'Back-to-School' camp by 2005 (extended to 2005-06):
- Bridging all gender and social category gaps at primary stage by 2007 and at elementary education level by 2010.
- Universal retention by 2010.
- Focus on elementary education of satisfactory quality with emphasis on education for life.

The involvement of the community has been made more systematic by involving the Panchayati Raj Institutions (PRIs) and urban local bodies. Further down the hierarchy, the Village Education Committees (VEC), Mother-Teacher Associations (MTA) and Parent-Teacher Associations (PTAs) have a formal role in the management of schools in the village. Efforts are also made for the social mobilisation of local communities for adult literacy campaigns and for the promotion of primary education. Community-ownership of the school system is a key element in SSA. The SSA has brought primary education to the doorstep of children and enrolled them, including first generation learners, through successive fast track initiatives, in hitherto unserved and underserved habitations. The paradigm shift from access to quality in the focused implementation of the SSA during the Eleventh Five year plan would be a significant development in the field of basic education.

Mid-Day Meal Scheme launched on 15-8-1995, aimed at providing cooked meals to about 11 crore primary school children. Till the beginning of 2004-05, only 5 per cent of the target group was supplied with cooked meals by 14 States and 7 UTs. In other States the coverage was partial (selected districts/blocks) or not implemented at all. Some of these states were supplying only dry ration @ 3 kg./perchild/per month as no provision could be made for cooking costs. The MDMS was universalised with effect from September 2004 to cover all the children in Primary classes including those under NFE centre (EGs and also Maqtabas/Madarasas assisted under SSA/DPEP). Central assistance was provided for cooking cost @ ₹ 1.0 per child per school day, kitchen sheds @ ₹ 60000/ unit and utensils, gas burner etc. @ ₹ 5000/- per school and the transport subsidy for foodgrains was enhanced from ₹ 50 qtl to ₹ 75 qtl and ₹ 100/- for Special Category States, besides providing foodgrains on an expanded scale and free of cost of to the States. Provision was made to cover about 2.0 crore children in drought-affected areas for supply of cooked meals for about 50 days during summer vacations.

Keeping in view the need for increase in the nutrition level of the primary school children, the scheme was revised in July 2006 with new norm of supplying 450 calories and 12gm of protien centents in one cooked mid-day meal as against 300 calories. The central assistance for cooking cost was further enhanced @ ₹ 1.80 in North East and for other States and UTs @ ₹ 1.50, with these group of States contributing only a of minimum @ ₹ 0.20 and @ ₹ 0. 50 per child/school day, respectively. In October 2007, the UPA Government expanded the scheme to cover children in upper primary (VI to VIII) classes also in 1479 Educationally Backwards Blocks (EBBs) targeting about 1.5 crore children. The calorific value of a mid-day meal has been fixed at a minimum of 700 calories and 20 grams of protein by providing 150 grams of foodgrains (rice/wheat) per child/school day. The programme has been universalised at elementary level (Primary+ Upper Primary) and extended to all areas across the country from 2008-09.

Feed back on the programme points to positive impact on enrolment and attendance of children. Studies show that it eliminated classroom hunger'. Social equity is fostered through sharing of meals by children. This programme has also provided opportunities of employment to women belonging to disadvantaged sections particularly SCs/STs who are being engaged as cooks and helpers. SHGs and Mata Samitis, PTAs and reputed NGOs are also involved in implementation of the scheme. Most of the states integrated micro nutrient supplementation and also deworming. MDMs is monitored by 41 National level institutions including IIMs and is being evaluated by Programme Evaluation Organisation, Planning Commission.

Education of women and girls has been recognized by the NPE (1986) as the kernel of redressing traditional gender imbalances in educational access and achievement. The subsequent Plan of Action, 1992 stated that it was impossible to achieve UEE unless concerted efforts were made to reach out to the girl child. Specific steps taken so far in this direction include mandatory recruitment of at least 50 per cent female teachers under Operation Black Board, a separate budget for girls' centres under Non-Formal Education Scheme, EGS/AIE centres, bridge courses, back to school camps, residential camps for out of school girls, Lok Jumbish (Rajasthan) to bridge the gender gap in primary education, DPEP in low female literacy districts, Mahila Sanghas under Mahila Samkhya Scheme for women's empowerment, a National Programme for Education for Girls at Elementary Level (NPEGEL)—a component of SSA, and residential upper primary schools under Kasturba Gandhi Swatantrata Balika Vidyalaya (KGBV), which specifically target the girl child in educationally backward districts/blocks.

Consequently, the gender gap in primary GER has declined from 18.4 in 2001-02 to 6.6 in 2006-07, Similarly, it declined from 15.7 to 7.9 in upper primary level. Thus, there has been a substantial reduction in gender gap in Elementary GER from 17.1 to 6.93 for the corresponding period. The dropout rates for girls at primary level has been more or less similar to that of boys. However, at elementary level, the girls' drop out rate has declined at a faster rate (11.59 percentage points) than that of boys (6.33 percentage points). Under Kasturba Gandhi Balika Vidyalayas (KGBV) scheme, launched in 2004, 2578 residential schools (272 in blocks with substantial Muslim population, 622 in SC and 583 in ST Concentration blocks) have been sanctioned, of which, 2268 KGBVs are functional with 1.75 lakh girls. The structure of KGBV enrolments indicates 27 per cent SCs, 33 per cent STs, 26 per cent OBCs, 6.5 per cent Muslims and 9 per cent girls from BPL families. KGBV has been merged with SSA from 1.4.2007. SSA also supports Madarasas and maktabas adopting general state curriculum. NPEGEL is being implemented in EBBs, providing free books and uniforms to girls.

EDUCATION OF MINORITIES

During the Tenth Plan, 11,542 primary and upper primary schools and 32,250 EGS Centres were sanctioned in the minority concentration districts. A total number of 8309 Madarasas affiliated to the State Boards were assisted and 4867. Maktabas/Madarasas were taken up under FGS/AIE. Free textbooks are provided to all minority girls from classes I-VIII and Urdu textbooks are provided for Urdu medium schools. Out of the 2180 KGBVs sanctioned upto March 2008, 272 are in blocks with substantial Muslim population. In the XI Plan additional madarasas/maktabas will be supported for modernization under AIE component and it should be possible to cover all the 12,000 odd Madarasas during the Plan period. The scheme of Area Intensive and

Madarsas Modernization Programme (AIMMP) has been revised as two distinct schemes (SPQEM and IDMI) for bringing quality improvement in Madarsas to enable children to obtain standards of the national education system in formal education subjects.

Total Literacy Campaign (TLC) is the principal strategy adopted by the National Literacy Mission (NLM) in the area of Adult Education for eradication of illiteracy in the country. The literacy campaigns are area specific, time-bound and are developed through voluntary, cost-effective and outcome-oriented methods. The NLM aims to provide functional literacy to persons in the age group of 15-35 years to sustainable threshold level of 75 per cent by the year 2007. During the Tenth Plan, out of 600 districts in the country, 95 have been covered under Total Literacy Campaign, 174 under Post Literacy Programme and 328 under Continuing Education Programme. As such, 597 districts have been covered under these schemes. According to the Census 2001, literacy has increased from 52.21 per cent in 1991 to 64.84 per cent in 2001. Female literacy which was 29.25 per cent in 1991, has increased by 14.38 percentage points to 53.67 percent in 2001 whereas, the male literacy rate, which was 64.13 per cent in 1991 has risen by 11.13 percentage points to 75.26 per cent in 2001. Thus female literacy increased at a faster rate than that for males. Special emphasis has been laid by NLM on women's participation (60 per cent) in Literacy programme. The NLM will be converted into National Female Literacy Mission (NFLM).

Secondary Education serves as a bridge between elementary and higher education and prepares young persons between the age group of 14-18 for entry into the world of work or into higher education. In view of the demands of rapidly changing technology and the growth of knowledge economy, a mere eight years of elementary education has been felt to be grossly inadequate for young children to acquire necessary skills to compete in the job market. Therefore, a Mission for secondary education is essential to consolidate the gains of Sarva Shiksha Abhiyan and to move forward in establishing a knowledge society. The number of secondary and higher secondary schools in India increased from 7,416 in 1950-51 to 1,68,900 in 2006-07. The thrust of Secondary education during Tenth Plan period was on improving access and reducing disparities by emphasizing the Common School System and reorganization of teachers training and greater use of ICT.

The Eleventh Plan aims to (i) raise the minimum level of education to class X and accordingly, universalize access to secondary education; (ii) ensure good quality secondary education with focus on Science, Mathematics and English and (iii) strive for major reduction in gender, social and regional gaps in enrolment, dropouts, and school retention. The norms will be to provide a secondary school within 5 km, and a higher secondary school within 7-8 km of every habitation. the GER in secondary education is targeted to increase them 52 per cent in 2004-05 to 75 per cent by 2011-12, and the combined secondary and senior secondary GER from 40 per cent to 65 per cent in the same period. Improving quality measures include adoption of NET/SET of NCERT/CBSE/SCERT/State Boards to enable recruitment of quality teaching faculty and long pending institutional reforms. The Plan also focuses on demand driven Vocational Education programmes in partnership with employers, expansion and diversification of the open learning system and revamping ICT in secondary and higher secondary schools.

The XI plan provides for launching a Centrally Sponsored Scheme (CSS) named SUCCESS (Universalisation of Access to and Improvement of Quality of Education at Secondary Stage). The main objectives of the scheme are (1) Universalizing access

with major reduction in gender, social and regional gaps in enrolment, drop-out, and retention and (ii) improving quality with focus on Science and Maths, Specific interventions will include setting up 6000 high quality Model Schools at block level to serve as benchmark for excellence in secondary schooling, upgrading 15000 existing Middle schools to secondary schools, increasing the in-take capacity of about 44000 existing secondary schools, strengthening infrastructure in existing schools with additional classrooms and additional teachers, encouraging establishment of good quality schools in deficient areas in both public and in PPP mode, providing 100 per cent trained teachers in all schools. Government of India has approved CSS on Rashtriya Madhyamit Shiksha Abhiyan (RMSA), Model schools (2500) in Block level as benchmark of excellence in Kendriya Vidyalaya (KV) template, National Means-cum-Merit Scholarship (NMMS) Scheme, National Scheme of Incentive to Girls for secondary education, inclusive Education of the disabled at Secondary Schools (IEDSS) and Scheme of construction and running of Girls' Hostel for student of Secondary and Higher Secondary Schools. The Government of India has also sanctioned additional 20 Jawahar Navodaya Vidyalayas during 2008-09 in districts having large concentration of Scheduled Castes and Scheduled Tribes population.

Vocationalisation of Higher Secondary Education

The Eleventh Plan envisages a comprehensive scheme for creating a diverse and wide range of skills for our youth that would enable the country to reap the scientific and demographic dividend. The emphasis will be on demand driven VE programme for skill development in partnership with industry/employers. The current programme will be restructured with emphasis on hands on training exposure, vertical mobility and flexibility. Greater emphasis should be placed on the service sector and, therefore, on soft skills, computer literacy and flexi-time. Other features include compulsory partnership with employers who could provide trainers and arrange for internship, give advice on curricula and participate in assessment and certification. The existing scheme on vocationalisation of higher secondary education is being restructured keeping in view the above.

School education and Literacy has thus been given the highest priority. Out of the total outlay of ₹ 2.70 lakh crore envisaged in the Eleventh Plan allocation for Education (Central Sector), including Higher and Technical Education, an amount of over ₹ 1.85 lakh crore is for School Education and Literacy, including ₹ 1.25 lakh crore for Elementary Education, ₹ 6000 crore for Literacy Adult Education, and ₹ 535.50 crore for Secondary Education. The share of education in the total plan outlay will correspondingly increase from 7.7 per cent to 19.4 per cent Thus, around 50 per cent of the Eleventh Plan outlay is for elementary education and literacy and 20 per cent for secondary education and 30 per cent for higher-education.

Higher Education : The Indian higher education system has grown into one of the largest in the world. During the year 2007-08, there were 24 Central Universities, 251 State Universities, 103 Deemed Universities, 11 Private Universities, 20677 colleges. 33 institutions of National Importance were established through Central Legislation and another five through state legislations. The enrolment in higher education was 156 lakh with faculty strength of 5.05 lakh. The number of technical institutions has shown a phenomenal increase. The total number of AICTE approved engineering college in 2007-08 was 1668 with an annual intake of 6.53 lakh. The aggregate number of technical institutions and the intake capacity was 4894 and 9.08 lakh respectively.

GER in higher education at 12.39 per cent in 2006-07 is targeted to be increased by 5 percentage points by the end of 11th Plan. It is further envisaged to increase the GER to 21 per cent by the end of the 12th Plan. To achieve this, the enrolment in universities/colleges has to be substantially raised.

"Expansion, inclusion, rapid improvement in quality throughout the higher and technical education system by enhancing public spending, encouraging private initiatives and initiating the long overdue major institutional and policy reforms as the core of the plan efforts" being the objective, 11th Plan provides an outlay of ₹ 84,943 crore for higher and technical education.

The new initiatives included in the Plan are: 16 New Central Universities in States which have no Central University, 14 World Class Universities, 374 colleges in partnership with States in low GER district, support to State Universities/colleges not covered under UGC grant, Establish 8 IITs, 7 IIMs (4 under PPP) 10 NITs, 20 IIITs, (10 under PPP), 5 IISERs, 2SPAs and 50 Centers for Training and Research in frontier areas, upgradation of State Engineering Institutions, Loan scholarship, etc., expansion of Research Fellowships and hostels for girls and Inclusive Education.

New Polytechnics will also be set up in every district not having one already. These polytechnics will be established primarily with Central funding and over 700 will be set up through PPP and private funding.

- 300 polytechnics to be set up by the State Governments with Government of India assistance of ₹ 12.3 crore per polytechnic to meet the capital costs. These will cover 212 districts which do not have any Government polytechnic as of now and also cover educationally backward districts where Public Private Partnership (PPP) based or entirely private sector owned polytechnics may not be easy to establish and which are under served districts.
- 300 polytechnics to be set up through Public Private Partnership by the State Governments with roughly 1/3th of the cost of capital assets being provided by the Government of India with a ceiling of ₹ 3 crores.
- 400 polytechnics will be established through private funding.

The project of TEIP with World Bank assistance is being implemented since 2003 in the country to support excellence and transformation in Technical Education. The total number of institutions covered under TEQIP-I are 128 out of which 18 are Centrally funded. The first phase is about to be over and the TEQIP Phase II is in the process of finalization. The focus of the Phase-II will be on capacity building of staff and faculty, research fellowships and research infrastructure development and equipment.

A landmark decision which has resulted in substantial expansion in higher education is the 27 per cent reservation for the OBC in Centrally governed institutions. In pursuance of the 93rd amendment to the Constitutions of India aiming to provide statutory reservations to SCs, STs, and OBCs in Central Educational Institutions, the Central Educational Institutions (Reservation in Admission) Act has been enacted and has been notified in January 2007. The OSC (Moily Committee), constituted in May 2006 recommended an investment of Rs. 17270 crore over a period of five years for the Central Educational Institutions to increase their intake capacity by 54 per cent so as to provide 27 per cent reservation to OBCs without affecting the number of general seats. Of this ₹ 7035 crore will be non-recurring expenditure, the bulk of which will be spread over five years, increasing progressively, subject to the final order of the Supreme Court.

Hon'ble President in Her address to the Joint Session of Parliament on June 4, 2009, mentioned, "Government's strategy for higher education will be formulated around a three fold objective of expansion, inclusion and excellence. The suggestions given by the National Knowledge Commission will guide the formulation and implementation of the strategy, GOI will initiate steps on the following measures:

- A National Council for Human Resources in Health as an overarching regulatory body for the health sector to reform the current regulatory framework and enhance supply of skilled personnel.
- A National Council for Higher Education as recommended by the Yashpal Committee and the National Knowledge Commission to bring in reform of regulatory institutions. Follow-up action is being taken accordingly.

HEALTH AND FAMILY WELFARE

It is an accepted axiom that health sector reforms are fundamental to the sustained economic and social advancement of a nation. To raise the level of health of the country and promote the physical advancement of a nation, to raise the level of health of the country and promote the physical and mental well being of the people, a minimal level of health care needs to be assured to the population, irrespective of the socio-economic diversity spanning and country. Better access to and utilization of health, family welfare and nutrition services have been the core element of the development strategy as orchestrated through various Plans.

Government initiatives made over the last six decades in the public health sector have brought forth considerable achievements in the health standards of the country in terms of eradication of smallpox and guinea worm from the country and there is hope that polomyelitis will be contained in the near future, health indicators, while recording improvements over time, point to alarmingly high rates of malnutrition and mortality, especially among women and children. Infant and maternal mortality are good indicators to show how well nations are doing in protecting their most vulnerable members. Both infant and child mortality have continued their declining trend, but remain at high levels in India. An unacceptably high proportion of the population continues to suffer and die from new diseases, which are emerging, apart from continuing and new threats posed by the existing ones.

The country is at all crossroads of rising cost of health care and growing expectations of the people. The challenge of quality health services in remote rural regions has to be urgently met. The lacuna in the functional status of the health system is attributed to (i) Mismatch between personnel and infrastructure; (ii) Lack of Continuing Medical Education (CME) programmes for orientation and skill upgradation of the personnel, (iii) Lack of appropriate functional referral system; and (iv) Absence of well-established linkages between different components of the systems.

The Eleventh Five Year Plan has an objective to achieve good health for people, especially the poor and the underprivileged. In order to do this, a comprehensive approach has been adopted encompassing individual health care, public health, sanitation, clean drinking water, access to food, and knowledge of hygiene, and feeding practices. The Plan facilitates convergence and development of public health systems and services that are responsive to health needs and aspirations of people. Special attention is needed towards the health of marginalized groups, like adolescent girls, women of all ages, children below the age of three, older persons, disabled, and

primitive tribal groups. To achieve these objectives, aggregate spending on health by the Centre and the States has to increase significantly to strengthen the capacity of the public health system. The accountability in the delivery of health services calls for involvement of PRIs, community, and civil society groups. Health as a right for all citizens is the goal that the Plan is striving towards and the time-bound goals for the Eleventh Five Year Plan are:

- Reducing Maternal Mortality Ratio (MMR) to 1 per 1000 live births.
- Reducing infant Mortality Rate (IMR) to 28 per 1000 live births.
- Reducing Total Fertility Rate (TPR) to 2.1
- Providing clean drinking water for all by 2009 and ensuring no slip-backs.
- Reducing anaemia among women and girls by 50 per cent.
- Raising the sex ratio for age group 0-6 to 935 by 2011-12 and 950 by 2016-17.

The launch of National Rural Health Mission (2005-12) on 12 April 2005 is a step towards transforming public health care into an accountable, assessable and affordable system of quality services during the current Five Year Plan. The Mission is providing effective healthcare to rural population throughout the country with special focus on 18 States, which have weak public health indicators and/or weak infrastructure. These 18 States are Arunachal Pradesh, Assam, Bihar Chhatisgarh, Himachal Pradesh, Jharkhand, Jammu and Kashmir, Manipur, Mizoram, Meghalaya, Madhya Pradesh, Nagaland Orissa, Rajasthan, Sikkim, Tripura, Uttarakhand and Uttar Pradesh.

The Mission is an overarching umbrella that repackages and covers most of the existing programmes of the Ministry of Health and Family Welfare including reproductive, and child health, vector borne disease control, blindness control, T.B. control, leprosy eradication, iodine deficiency control and integrated disease surveillance. The real difference lies in the increased allocation of financial resources and availability of a Mission Flexi Pool for innovative and need-based decentralized utilization of funds for developing a well-functioning health delivery apparatus in the States. It seeks to revitalize local health traditions and mainstream Ayush into the public health system. It aims at effective integration of health concerns with determinants of health like sanitation and hygiene, nutrition and safe drinking water through a District Plan for Health.

Further, the various thrust areas being pursued during the Eleventh Five Year Plan are to improve health equity through implementation of National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM). A system-centric approach is being adopted rather than a disease-centric approach, whereby all health programmes are converged and health system through upgradation of infrastructure and PPP is strengthened. The decentralized governance is being put in a proper shape by increasing the role of PRIs, NGOs, and civil society, creating and empowering health committees at various levels. The human survival is being enhanced by reducing maternal mortality, infant and child mortality, through programmes of Home Based Neonatal Care (HBNC) and integrated Management of Neonatal and Childhood Illnesses (IMNCI). The child sex ratio needs to be improved upon through Gender Responsive Health care. Utmost efforts are being made to take full advantage of local enterprise for solving local health problems:

- Integrating AYUSH in Health System.
- Increasing the role of Rural Medical Practitioners (RMPs).
- Training the Traditional Birth Attendants (TBAs).
- Propagating low cost and indigenous technology.

A mechanism for Health Insurance for unorganized sector to prevent indebtedness due to expenditure on health and also protecting the poor from health expenditures is required. The "Rashtriya Swasthya Bima Yojana" has been launched in October 2007 with a view to providing health insurance cover to Below Poverty Line (BPL) workers in the unorganised sector and their families.

Eleventh Plan focusses on implementing Indian Public Health Standards (IPHS) for health care institutions at all levels, accrediting private health care facilities and providers. Health Human Resources, improving Medical, Paramedical, Nursing, and Dental education alongwith reorienting AYUSH education, taking care of the Older persons, reducing Disability and integrating disabled, providing humane mental health service and oral health services and launching new initiatives for Rabies, Fluorosis and Leptospirosis.

The Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) was launched with the objective of correcting the imbalances in availability of affordable/tertiary level healthcare services and to augment facilities for quality medical education in the country. The PMSSY had two components (a) establishment of six AIIMS like Institutions in the States of Bihar (Patna), Madhya Pradesh (Bhopal), Orissa (Bhubaneswar), Rajasthan (Jodhpur), Chhattisgarh (Raipur) and Uttarakhand (Rishikesh). Estimated cost of each institute was Rs. 332 crore. The States have given land free of cost. States would also provide facilities for road connectivity, water and electricity supply up to the site. Each institution was envisaged to have an 850 bedded hospital intended to provide healthcare facilities in 39 specialty/superspecialty disciplines. Medical College will have 100 UG intakes besides facilities for imparting PG/ post doctoral courses in various disciplines. MoHandFW has drawn separate timelines for completion of activities for medical college cum hospital complex and residential complex. The work at Jodhpur residential complex is expected to be completed by 4th October 2009.

(b) Upgradation of 13 existing medical institutions has been another component of PMSSY. The institutions to be upgraded under this component are: Government Medical College, Jammu (J&K); Government Medical College, Srinagar (J&K); Kolkata Medical College, Kolkata (W.B); Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow (UP); Institute of Medical Sciences, BHU, Varanasi (UP); Nizam Institute of Medical Sciences; Hyderabad (A.P.); Sri Venkateshwara Insitute of Medical Sciences, Tirupati (A.P.); Government Medical College, Salem (T.N.); Rajendra Institute of Medical Sciences, Ranchi (Jharkhand); B.J. Medical College, Ahmedabad (Gujarat); Bengaluru, Medical College, Bengaluru (Karnataka); Grants Medical College and Sir J.J. Group of Hospitals, Mumbai, (Maharashtra) and Medical College, Thiruvananthapuram, (Kerala) with an outlay of ₹ 120 crore per institution, of which ₹ 100 crore would be borne by the Central Government (for SVIMS, Tirupati, it is only ₹ 60 crore) and the remaining ₹ 20 crore will be contributed by the respective State Governments. The State Governments will also provide the resources (manpower and recurring expenditure) for running the upgraded facilities. In respect of IMS, BHU, ₹ 20 crore will be spent by the Ministry of HRD, Government of India. The process of procurement of equipments has been taken up for the all the 13 medical

colleges. Out of the 10 medical colleges, where construction is proposed, civil work has started at 9 medical colleges and is under various stages of completion. Bid process for award of work at RIMS, Ranchi is under evaluation and work is expected to start soon. The upgradation broadly envisages strengthening the existing departments through procurement of equipments. It is also proposed to build a super speciality block and/or nursing college, OPD etc. for most of the institutions. The equipments required for these new buildings are being procured and civil construction work is expected to be completed soon. The approved outlay for PMSSY in XI Plan is ₹ 3955.00 crore.

In February 2009, the GOI has approved PMSSY: Phase-II envisaging setting up of 2 AIIMS like institutions each having 960 bedded hospital (UP and WB) and upgradation of existing Medical Colleges (i) Government Medical College, Amritsar (ii) Dr. Rajendra Prasad Govt. Medical College, Tanda (HP) (iii) Govt. Medical College Nagpur (iv) Jawaharlal Nehru College, AMU, Aligarh (v) Government Medical College, Madurai (TN) and (vi) Pandit B.D. Sharma Post Graduate Institute of Medical Sciences, Rohtak. Thus, in all, there would be 8 AIIMS like institutions and 19 upgraded medical colleges (equipped with super speciality treatment facilities, trauma care and the latest equipment).

At this juncture of the middle year of the Eleventh Plan, the process of a mid-term appraisal has been initiated to assess the progress made so far in terms of the achievement against various goals set for the Eleventh Plan and NRHM, in specific. Accordingly, mid-course corrections will be instituted. The Civil Society Organisations play a crucial role in reviewing the implementation of various health programmes and helps in rapid assessment of the programmes at the grassroot level. Rapid household surveys are being planned to indicate the extent of community satisfaction with NRHM. The programme has led to increase in health expenditure by both Centre and States. The proportion being spent on newer activities Janani Suraksha Yojana, ASHA, Mobile Medical Units, and Rogi Kalyan Samitis) has been gradually increasing. Though it takes time for the impact to be seen and the figures should be available after a time lag, yet for the achievement of goals, adequate attention is to be paid towards:

- Decreasing infant mortality through home based newborn care (Gadchiroli model).
- Decreasing maternal mortality through skilled attendance at birth (home as well as facility) and provision of emergency obstetrics care within two hours travel time.
- Reducing total fertility through greater male involvement and addressing the unmet need of family planning.
- Addressing issues of anaemia and malnutrition through Conditional Cash Transfers in the hands of women.
- Equity issues being addressed through involvement of Rural Medical and AYUSH Practitioners.
- Evolving mechanisms to reduce out-of-pocket expenditure, especially for the poor and high cost medical interventions.

PANCHAYATI RAJ INSTITUTIONS

The enactment of the 73rd Constitutional Amendment Act, 1992 marks a new era in the federal democratic set-up of the country bestowing a constitutional status to the

Panchayati Raj Institutions (PRIs). Pursuant to the Act, barring the States of Jammu and Kashmir, the National Capital Territory of Delhi where the Panchayat Raj Institutions had been superseded in 1990 and have not been revived till date, all the States have enacted the necessary legislation for setting up of strong, viable and responsible panchayats at different levels in their respective State/Union Territories. In all the States, panchayats have been constituted according to new laws except in the State of Jharkhand.

The Amendment Act contains provisions for devolution of powers and responsibilities to the panchayats both for preparation of Plans for economic development and social justice and for implementation, in relation to 29 subjects listed in the Eleventh Schedule of the Constitution. Pursuant to this, the States are expected to devolve administrative and financial powers alongwith the functionaries in respect to these 29 subjects to the PRIs. The State Governments are in the process of transferring these subjects to the PRIs. Recognising the need for taking concrete action to empower PRIs, the Government has set up an "Empowered Sub-Committee of National Development Council on Financial and Administrative Empowerment of PRIs" to look into the whole gamut of issues relocated to devolution of powers, functions and financial resources to the PRIs.

At present, panchayats receive funds from three sources, namely: (i) local body grants as recommended by the Central Finance Commission, (ii) funds for implementation of centrally-sponsored schemes; and (iii) funds released by State Governments on the recommendations of State Finance Commissions. Further, States are required to enact laws to enable Panchayats to raise tax and non-tax revenue so as to make them effective institutions.

The State Governments are required to constitute District Planning Committees (DPCs) as envisaged under Article 243 ZD of the Constitution at the district level to facilitate the process of decentralised planning by consolidating the development Plans prepared by the panchayats and municipalities for the district as a whole covering both rural and urban areas.

According to Article 243 (A) of the Constitution, the Gram Sabha may exercise such powers and perform such functions at the village level as the legislature of a State may, by law provide. Most State Acts have vested in the Gram Sabha responsibilities and functions such as : (i) supervising and monitoring the functioning of the Gram Panchayats; (ii) approval of plans and selection of schemes, beneficiaries and locations; and (iii) mobilisation of voluntary labour contributions in cash or kind for community welfare programmes and to promote unity and harmony among all sections of society. Of late, however, as a result of several initiatives of the Central Government in partnership with State Governments a view has emerged which favours strengthening of Gram Sabhas as the bedrock of democracy at the grass-roots level.

The States have been requested to take the following measures to empower the Gram Sabha : (i) to ensure that Gram Sabhas should meet at least once in each quarter preferably on Republic Day, Labour Day, Independence Day and Gandhi Jayanti; (ii) vest powers in Gram Sabhas giving them the powers of ownership, management and control over natural resources, as envisaged under the provision of the Panchayats (Extension to the Scheduled Areas) Act, 1996; (iii) Gram Sabhas should have full powers for determining the priorities for various programmes; (iv) Panchayats should be made accountable to the Gram Sabha in unequivocal terms; (v) members of Gram

Sabhas should be made aware of their powers and responsibilities and steps should be taken to ensure mass participation, particularly of SCs/STs and women; and (vi) Gram Sabhas should have the powers to evolve its own procedures to carry out social audit of development programmes.

The provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996 extends Panchayats to the tribal areas of nine States viz, Andhra Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Maharashtra, Madhya Pradesh, Orissa and Rajasthan. It strives to enable a tribal society to assume control over their own destiny to preserve and conserve their traditional rights over natural resources.

INFORMATION TECHNOLOGY

The Information Technology has contributed tremendously to the progress of our country and provided great leadership to Indian enterprise and creativity in the past decade. Breakthroughs in technology and innovative applications have brought vast benefits to various sectors and sub-sectors of the economy of the country. The entire gamut of IT-related services-including software and services, data and business processing services, and IT-enabled services-have emerged as a large knowledge based sector of our economy. The industry has not only come into its own, both in terms of investment and employment, but is also having a positive knock-on effect on other manufacturing and services sectors. It is contributing to increased productivity and competitiveness across a wide range of activities.

The export driven software and services industry continues to be the dominating factor in overall growth of the Indian Electronics and IT industry.

The year 2008 was marked by unprecedented global economic crisis. The Global economy slipped into severe recession in 2008 inflicted by a massive financial crisis and acute loss of confidence. This has cast its shadow on the Indian economy, which is estimated to grow at 6.7 per cent in 2008-09 as compared to 9.0 per cent in the fiscal year 2007-08; In spite of the uncertain global outlook, the Indian Information Technology—Business Process Outsourcing (IT-BPO) industry was able to achieve sustainable growth in fiscal year 2008-09. The revenue aggregate of IT-BPO industry is expected to grow by over 12 per cent and reach US \$ 71.7 billion in 2008-09 as compared to US \$ 64 billion in 2007-08. Industry performance was marked by sustained double-digit revenue growth steady expansion into newer service lines and increased geographic penetration. The Indian software and services exports including ITES-BPO exports is estimated at US \$ 47 billion in 2008-09, as compared to US \$ 40.4 billion in 2007-08, an increase of 16.3 per cent. The IT services exports is estimated to be \$ 26.9 billion in 2008-09 as compared to US \$ 23.1 billion in 2007-08, showing a growth of 16.5 per cent in 2008-09. ITES-BPO exports is estimated to grow from US \$10.9 billion in 2007-08 to US \$ 12.8 billion in 2008-09, a year-on-year (Y-O-Y) growth of over 17.4 per cent.

TELECOM SECTOR

The predominant role of the Telecom sector in the rapid social and economic development has been recognised the world-over. The telecom sector in India has undergone a series of changes and institutional reforms since 1991. The new Telecom Policy, 1999 has laid down the basic framework for the future development and growth of the Telecom sector in the country. The major approaches taken in the earlier plan are : (i) Affordable and effective communication facilities to all citizens;

(ii) Provision of universal service to all uncovered areas including rural areas; (iii) Building a modern and efficient telecommunication infrastructure to meet the convergence of Telecom, IT and Media; (iv) Transformation of the telecommunication sector to a greater competitive environment providing equal opportunities and level playing field for all players; (v) Strengthening Research and Development efforts in the country; (vi) Achieving efficiency and transparency in the spectrum management; (vii) Protecting the defence and security interests of the country, (viii) Enabling Indian telecom companies to become truly global players.

Specific targets were fixed for the sector during the Tenth Plan through the Joint efforts of public and private sectors. The private sector was expected to play a greater role in the provision of connectivity through mobile and wireless services. Except for rural telephony, the progress with respect to all other targets has been satisfactory so far. Performance in respect of major activities is in line with the targets fixed. Telephone on demand has been achieved in urban areas. The present teledensity is about 39.89 per cent per hundred population in June 2009, which in turn comprises urban teledensity of 93.60 per cent and rural teledensity of 17.10 per cent. The issue of narrowing down the gap between urban and rural tele-densities is expected to be effectively addressed during the eleventh five-year plan period.

An outlay of ₹ 1621.02 crore including a budgetary support of ₹ 431 crore was provided for telecom sector in the Annual Plan 2009-10. There were about 464.82 million telephone connections as on June 2009 (with 37.53 million fixed line subscribers and 427.29 million wireless lines). The share of private sector in the total number of telephones stood at around 80.35 per cent.

Improving rural connectivity by providing Village Public Telephones (VPTs) in remaining unconnected villages under 'Bharat Nirman' has been high on priority of Department of Telecommunications (DoT). Bharat Sanchar Nigam Limited (BSNL) has been awarded to work for providing Village Public Telephone (VPTs) in all the remaining 66822 uncovered villages, with support from Universal Service Obligation Fund (USOF). As on September 2009, 59800 villages have been provided with VPTs. In the remaining villages VPTs are expected to be installed by November 2009.

Total number of broadband connections (upto June 2009) is 6.62 million.

The Eleventh Plan of the telecom sector have been formulated keeping in view the targets for the telecom sector. Basically, the approach will be towards achieving faster, broader, and inclusive growth. Further, keeping in view the digital divide special attention will be paid to enhance the rural connectivity. The broad objectives for the telecom sector during the Eleventh Plan period (2007-12) will be as follows:

- To reach a telecom subscriber base of 600 million.
- To provide 200 million rural telephone connections by 2012, that is to reach rural teledensity of 25 per cent.
- To provide telephone connection on demand across the country at an affordable price.
- To reach a target of 20 million broadband connections and 40 million Internet connection by 2010 as envisaged in Broadband Policy 2004.
- To provide broadband connection on demand across the country by 2012.
- To provide third Generation (3G) services in all cities/towns with more than 1 lakh population.

- To facilitate introduction of mobile TV.
- To provide broadband connectivity to every secondary school (SS), health centre, GP on demand in two years.
- To make India a hub for telecom equipment manufacturing by facilitating establishment of telecom specific SEZs.

POSTAL SECTOR

The role of the Post Office is undergoing transformation the world over, as electronic mail and new technologies supplement traditional postal activities. Every where, the Post Office is increasingly exploring new areas and India Post is not an exception. It also tries to optimize its retailing strength, by providing a range of public utilities and new financial services that are relevant to the socio-economic needs of their country. It is also simultaneously upgrading traditional services through induction of technology, and introducing new products and services in order to meet the challenges of providing faster, more reliable, and more user responsive service in the face of increasing competition from the private courier industry and continuing advances in communication technology.

India Post is amongst the largest network in the world in terms of areas covered and population served having more than 1.55 lakhs, post offices across the country in both urban and rural areas. On the one hand it provides personal services to the people, and on the other it also provides service to private sector, which is crucial for the growth of the economy. It ensures daily delivery of mails at the doorstep of the customer selling of stamps. collection of letters through letterboxes etc. Apart from the basic services, various services like Retail Post, e-Post, Bill Mail Services, sale of passport application forms, pickup and delivery of Speed Post articles etc, including banking and insurance services are also being provided by selected Post Offices. An agreement has also been entered by the department with some state governments for providing Social Security Services/Schemes like National Rural Employment Guarantee Scheme (NREGS) and old age pension payment through Savings Bank Accounts.

The challenge of providing cost effective and viable services to the customer is also a matter of constant concern. The total revenue during 2006-07 was Rs. 5322.44 crore against net working expenses of Rs. 6571.96 crores leaving a gap of Rs. 1249.52 crore. The increase in postal revenue was to the extent of 5.05 per cent whereas there was a slight increase in the budgetary deficit of 3.28 per cent over the previous year.

Taking on to consideration the internal and external opportunities and challenges, Eleventh Plan focuses on all round development and repositioning of the Department. With the major thrust on induction of technology, the Department aims to computerize and network its all post offices in Eleventh Plan.

INFORMATION AND BROADCASTING

Information and Broadcasting sector consisting of Films, Information and Broadcasting wings have experienced impressive growth in recent years. The shares of information and broadcasting sector in total employment, income and investment have also gone up. The sector has continued its endeavor of keeping high growth by formulating and leveraging the policy issues such as FDI, content regulation, modernising print and press activities etc. Planning Commission through its proactive inputs also boosts such activities keeping economic growth in view.

Information Wing

The main focus of this wing is to act precisely to bring the programmes and projects of the Governments committed to the people through advertising in audio-visual and print media. The traditional media units while continuing to bring awareness through the traditional hoarding, banner, puppet shows, theatrical performances, has also infused the IT and electronics effects to raise the production of Radio/Video spots/jingles /message depicting visuals. An amount of ₹ 314 crore has been allocated for 11th Plan with ₹ 50 crore in the year 2008-09 to take up the various schemes of the Information wing.

Film Wing

The entertainment and media industry have outperformed the Indian economy. The drivers of this growth are mainly due to the technological excellence in digital media, increase in per capita income and liberal FDI policy. The industry is increasingly growing in all spheres film production, marketing and exhibition. Several film productions, distributions and exhibition companies are coming out with public issues. more theatres and multiplexes and digital cinema halls.

Over the years investment has been made to produce many short, documentary films. At the same time stress has been given to reduce piracies in the industries. Investment has been made to produce more trained manpower to meet the industries need.

Effort is on to gear up the industries for catching up the opportunities arising out of outsourcing of film production and services in the global film sector, where countries like China and Mexico have been able to bag outsourcing jobs from developed countries particularly in high value creative works.

Broadcasting Wing

Radio has been the cheapest entertainment and information distributor to the common people and has tremendous impact in the development of the country. Over the last five/six decades it has grown to 232 Radio stations, broadcasting through 374 transmitters (including FM) covering 91.82 per cent area and 99.16 per cent population. AIR has 149 FM transmitters in its network covering 35-40 per cent population of the country.

The special plan to expand the radio coverage in the sparsely populated and remote areas of Jammu and Kashmir, North Eastern states including Sikkim. Andaman and Nicobar. Daman and Diu are also undertaken including FM broadcasting.

Government intends to expand the FM broadcasting through private participation by auctioning spectrum and sharing the infrastructure of Prasar Bharati and accordingly brought Phase-I&II for expansion of FM channels. As on date 248 stations are in operation through the Private broadcasters. The FM broadcasting Phase-II has created a huge interest among the stakeholders in the broadcasting industries. This has lead to huge growth in Government revenue and employment generation and at the same time demand for FM stations in different parts of the country have been increased. Government has also increased the FDI limit in FM to 24 per cent from the earlier stake of 20 per cent.

Community FM broadcasting focuses on the common man's day to day concerns and helps in realizing local aspirations. This has shown a powerful means to rural empowerment focusing various aspects of the disadvantaged communities like dalits, rural women, and handicapped persons. With the demand for FM expansion

government is exuming the issue to fulfill the aspirations of the local community empowering the weaker and disadvantaged section.

The 11th Plan focuses on the expansion of the radio with its policy implementations through the schemes of FM expansion and digitalization of the terrestrial Radio transmission including its productions and studio-transmitter linking equipments. Digital Radio Mondale known as DRM system has been selected as the digital format for converting its analogue transmission to digital mode. A fund of ₹ 1618 crore has been allocated for both continuing and new schemes of AIR.

Doordarshan

Television has dominated the entertainment and media industry. The number of private satellite TV channels has grown massively from one TV channel in 2000 to 394 TV channels in 2009. This tremendous growth is due to the liberalization policy in FDI and upgradation of technology through digitalization. DTH is also mother segment responsible for boosting the TV growth.

Doordarshan operates 31 satellite channels covering 4 National, 11 Regional, 12 State Networks, one International and one Gyan Darshan, one Sports and one Parliament channel. It has 66 studio centers; and 1414 transmitters under terrestrial network. Apart from this it has satellite networking in C and KU bands. DTH through KU band telecasting in 33 TV and 12 AIR Audio channels free of cost, can be received at any place except in Andaman and Nicobar Islands. The national channel both terrestrial as well as satellite has reached coverage of 92.2 per cent of the population while the news channel has covered 49.1 per cent of the population. The area coverage is 81.2 per cent and 25.6 per cent respectively.

Ministry of I&B/Prasar Bharati has set out for digitalization of its entire networks in Doordarshan. A fund of ₹ 3032 crore has been provided to Doordarshan including HDTV.

High Definition Television (HDTV) has been given priority and at pace with the world trend. Doordarshan has been approved for HDTV production and transmission in four metro stations. To start its terrestrial and satellite HD broadcasting starting from the forthcoming Commonwealth games in 2010, ₹ 165 crore has been allocated in the 11th Plan. Doordarshan had since covered the CWG-2010 via HDTV technology.

TV coverage of Commonwealth Games: Doordarshan was designated as the host broadcaster for Commonwealth Youth Games 2008, Pune as well as for the Commonwealth Games 2010, Delhi. It was decided to provide the coverage of Commonwealth Games 2010 in High Definition Television Technology (HDTV) to the international community. Prasar Bharati has been allocated ₹ 463 crore for the same.

DTH service refers to multi channel programmes in Ku band by using satellite systems for providing signals direct to subscribers' home. DD Direct is India's first and only FTA service. 11th plan has allocated Rs. 85 crores for DTH expansion and modernization. Apart from this there are Private services such as Dish TV, Tata Sky, Sun Direct, Reliance Big TV, Bharati Telemedia and Bharati Business channel.

Private Terrestrial TV Broadcasting Services : Digitalization has opened up availability of additional channels per carrier TV broadcasting which has led to explore new business. Ministry of I&B is considering a policy issue in line with FM to utilize additional channels for business in PPP mode.

TRANSPORT

Transport system in India comprises a number of distinct modes and services, notably railways, roads, road transport, ports, inland water transport, coastal shipping, airports and airlines. Railways and roads are the dominant means of transport carrying more than 95 per cent of the total traffic generated in the country. The transport sector has expanded manifold in the first 50 years of planned development, both in terms of spread and capacity.

Railways : Indian Railways is the principal mode of transportation for bulk freight and long distance passenger traffic. It has a network of about 63630 km. route and fourth largest in freight loading after USA, China and Japan and second largest in passenger business (originating) after Japan. The major challenge before Indian Railway is to meet the accelerated demand for high quality services. The key strategy to meet this challenge would be construction of dedicated freight corridors on the selected routes and also short term and low cost capacity creation through technology upgradation and modernization. The other thrust areas would include augmentation of axle load, introducing higher capacity wagons with better payload running of double stack container trains; increasing running of longer passenger trains; introducing higher capacity coaches, increased computerization in operation and maintenance of services and improving of safety.

The two Dedicated Freight Corridors decided to build up for augmentation or capacity of Indian Railway are Eastern Corridor-Ludhiana-Mughalsarai-Dinkuni (1806 km). and Western Corridor JNPT-Vadodara-Rewari-Tughlakabad/Dadri (1483. km).

Roads : constitute the basic infrastructure and play role in the development of a nation. Improvement in the road network has been accorded a very high priority in development planning of the country.

The objective of road planned development is to improve mobility and accessibility. Providing connectivity to villages and habitations is extremely crucial to realize the objective of accessibility. Hence, necessary priority was accorded by rephrasing the PMGSY whose target was to provide connectivity to habitations with population 1000 and above by 2003 and those with population 500 and above by 2007 (250+ for hilly and tribal areas)-to achieve the Bharat Nirman target of connecting 1000+ habitation (500+ for hilly and tribal areas) by 2009, thereby improving the quality of life in rural areas and ensuring balanced regional development.

The mobility is to be facilitated through improvement in capacity and strengthening high-density corridors. The National Highway development Project is the main initiative in this regard and has been taken up with the objective of improving the national Highway network in a phased manner.

Further, keeping in view the need for nationwide connectivity and increased mobility, and expanded programme for highway development has been taken up in a phased manner during 2005-2012. The programme includes completion of National Highway Development Project (NHDP) Phase-I and II, NHDP Phase-III for four/ six laning of 12, 109 kms of National Highways on Build, Operate and Transfer (BOT) basis, NHDP Phase-V for six laning of 6500 km length of selected National Highways, NHDP Phase-VI for development of 1000 km of Express ways and NHDP Phase-VII for construction of ring roads of major towns and bypasses, flyovers, etc. on National Highways.

Also a "Special Accelerated Development Road Programme for the North Eastern Region (SARDP-NE) has been taken up in two phases with full vigour. A High

Powered Inter Ministerial Committee (HPC) has been set up for coordinating the Programme, ensuring avoidance of overlapping of various proposals and sanctioning of individual sub-projects under SARDP-NE.

Besides, in order to remove deficiencies, the thrust would continue to be on construction of missing links, improvement of low-grade sections, rehabilitation and reconstruction of weak bridges, construction of bypasses and 4-laning and strengthening of weak 2-lanes.

Financing of investment for the expanded programme of highway development is a massive task. Thus, involvement of private sector for development of roads under National Highway Development Programme through Build Operate Transfer (BOT) route has been taken up in a major way. Accordingly, it has been decided that for NHBP Phase-III onwards, all contracts for provision of road services would be awarded only on BOT basis with Engineering Procurement Contracts (EPC) awards being made in specified exceptional cases only. In order to facilitate involvement of private sector in road development programme various enabling measures have been taken by the Government. A Model Concession Agreement for BOT projects has been evolved in order to specify the policy and regulatory framework on a fair and transparent basis. Steps have been initiated for restructuring of National Highway Authority of India, which is the implementing agency for the National Highway Programme.

In order to augment funding for meeting the time targets rural connectivity under Bharat Nirman, funds are being borrowed from the National Bank for Agriculture and Rural Development by leveraging cess accruals.

Ports

Ports play a crucial role in the transportation system for facilitating international trade as almost 95 per cent by volume and 70 per cent by value of India's merchandise trade is carried through the sea route. There are 12 major ports and 200 non-major ports along India's 7517 km coastline. The major ports handle about 73 per cent of the port traffic of the country and remaining 27 per cent is handled by minor/State ports.

The thrust in the 11th Plan will be on expansion of port capacity by constructing/upgrading berths/terminals and related infrastructure and improvement in the efficiency and productivity by replacing/modernizing equipment and introducing latest state-of-the-art equipment in the ports sector. The augmentation of berth capacity would be preferably through private investment of public-private partnership.

Keeping in view the need for meeting the requirement of traffic efficiently additional capacity would be created by evolving more liberal dredging policy to encourage port dredging companies to participate in dredging activity on long term basis.

In order to ensure smooth evacuation of cargo from the port and movement to the port, it is proposed to connect all major ports with 4-lane road as well as double railway line.

There has been steady improvement in the port performance over the years. Traffic handled at major ports has gone up from 519.30 MT during 2007-08 to 530.35 MT during 2008-09.

Inland Water Transport (IWT)

IWT is an energy efficient, environmentally clean and economical mode of transport. India is richly endowed with waterways comprising river systems and canals. It is estimated that a total of 14544 km of waterways could be used for passenger and

cargo movement. However, capacity of the sector is grossly under-utilised as most navigable waterways suffer from hazards like shallow water and narrow width of channel during dry weather, silting of river beds and erosion of banks, absence of adequate infrastructural facilities like terminals for loading and berthing and surface road links.

The thrust in the Tenth Plan is on development of infrastructure facilities with a focus on NE region and private sector participation so that there is a gradual shift of domestic cargo from rail-road modes to inland water transport. The focus in the Eleventh Plan would be to put requisite infrastructure on the existing waterways to make them fully functional. along with the development of new waterways.

CIVIL AVIATION

The Civil Aviation is crucial for the development of a nation as it not only plays an important role in undertaking long-distance travel and transporting high-value and perishable commodities but also in integrating different parts of the country. The main objective of this sector is to provide safe, reliable and affordable air services; and also to bring balanced and inclusive growth in the country.

Keeping the aforesaid objective in view a large number of programmes have been taken up. The programmes include i) acquisition of fleet; ii) modernization and restructuring of metro, non-metro and other airports; iii) construction of green field airports and iv) improvement of air connectivity in NER and other crucial areas.

Besides, emphasis is also placed on encouraging private sector participation in aviation sector. Greenfield airports at Hyderabad and Bengaluru have already been developed on Public-private-partnership (PPP) mode. Similarly, the construction of Greenfield airports at Navi Mumbai, Kannur and Mopa and also the city side development at 34 non-metro airports are envisaged to be taken up through PPP mode.

Further with a view to create a level playing field and healthy competition amongst all major airports. The Airports Economic Regulatory Authority (AERA) has been established. AERA besides fixing tariff structure for the aeronautical services will also monitor the performance standards relating to the quality, continuity and reliability of services.

TOURISM

Tourism is the largest service industry in the country and has potential to stimulate economic growth of the country through its backward and forward linkages and cross-sectoral synergies with other sectors. The main objective of this sector is to develop and promote tourism in a sustainable manner by placing emphasis on positioning and maintaining tourism development as a national priority activity, enhancing and maintaining the competitiveness of India as a tourist destination; improving existing tourism products and expanding these to meet new market requirements by creating world class infrastructure, developing sustained and effective market plans and programmes, and giving special thrust to rural and small segment tourism with ultimate aim to ensure economic development and employment generation particularly in remote and backward areas.

The Department of Tourism has adopted a multi-pronged approach to achieve the desired objective in tourism sector. They include providing a congenial atmosphere for tourism development, strengthening the tourism infrastructure, integrated development of identified destination, integrating elements of tourism, culture and

clean civic life, marketing of tourism products in a focused manner along with branding exercise and positioning of India as a high value destination and giving thrust on the human resource development activities etc.

WOMEN AND CHILD DEVELOPMENT

Women are significant contributors to the growing economy and children are assets for the future. Almost 50 per cent of our population today comprises women while 42 per cent of population constitute children under the age of 18. For growth to be truly inclusive, we have to ensure their protection, well being, development, empowerment and participation.

Women and children continue to be more vulnerable to violence, neglect, and injustice than others. The Eleventh Plan addresses these problems by looking at gender as a cross-cutting theme. It also recognizes women's agency and the need for women's empowerment. At the same time it ensures the survival, protection, and all-round development of children of all ages, communities and economic groups.

The approach to gender equity is based on the recognition that interventions in favour of women must be multi-pronged and they must; (i) provide women with basic entitlements, (ii) address the reality of globalization and its impact on women by prioritizing economic empowerment. (iii) ensure an environment free from violence against women (VAW)-physical, economic, social, psychological etc. (iv) ensure the participation and adequate representation of women at the highest policy levels, particularly in Parliament and State assemblies, and (v) strengthen existing institutional mechanisms and create new ones for gender main-streaming and effective policy implementation.

The approach to child development is to ensure that children do not lose their childhood because of work, disease, and despair. It is based on the understanding that the rights of all children, including those who do not face adverse circumstances, must be protected everywhere and at all times so that they do not fall out of the social security net. Successful integration of survival, development, protection, and participation policies are important for the overall well being of the child. The vision of the Eleventh Five Year Plan is to end the multifaceted exclusions and discriminations faced by women and children, to ensure that every woman and child in the country is able to develop her full potential and share the benefits of economic growth and prosperity. Success will depend on the ability to adopt a participatory approach that empowers women and children and makes them partners in their own development. The roadmap for this has already been laid in the National Policy on Women 2001 and the National Plan of Action for Children 2005.

It also needs to be understood that women and children are not homogenous categories; they belong to diverse castes, classes, communities, economic groups, and are located within a range of geographic and development zones. Consequently some groups are more vulnerable than others. Mapping and addressing the specific deprivations that arise from these multiple locations is essential for the success of planned interventions. Thus apart from the general programme interventions special targeted interventions catering to the differential needs of these groups will be undertaken during the Eleventh Plan.

Women need to be recognized not just as equal citizens, but as agents of economic and social growth. The approach to gender equity is based on the recognition that interventions in favour of women must be multi-pronged and they must:

- (i) provide women with basic entitlements.
- (ii) address the reality of globalization and its impact on women by prioritizing economic empowerment.
- (iii) ensure an environment free from all forms of economic, social, psychological etc.
- (iv) ensure the participation and adequate representation of women at the highest policy levels, particularly in Parliament and State assemblies, and
- (v) strengthen existing institutional mechanisms and create new ones for gender mainstreaming and effective policy implementation.

The child development approach is to ensure that children do not lose their childhood because of work, disease, and despair. It is based on the understanding that the rights of all children including those who do not face adverse circumstances, must be protected everywhere and at all times so that they do not fall out of the social security net. Successful integration of survival, development, protection, and participation policies are important for the overall well being of the child.

The flagship Programme of this sector is:

ICDS (Integrated Child Development Services)

Launched on 2nd October 1975 in 33 Community Development Blocks, ICDS today represents one of the world's largest programmes for early childhood development. ICDS is the foremost symbol of India's commitment to her children - India's response to the challenge of providing pre-school education on one hand and breaking the vicious cycle of malnutrition, morbidity, reduced learning capacity and mortality on the other. It is an intersectoral programme which seeks to directly reach out to children, below six years, especially from vulnerable and remote areas and give them a head-start by providing an integrated programme of early childhood education, health and nutrition. No programme on early childhood care and education can succeed unless mothers are also brought within its ambit as it is in the lap of the mother that human beings learn the first lessons in life.

The Scheme provides an integrated approach for converging basic services through community-based workers and helpers. The services are provided at a centre called the 'Anganwadi'. The Anganwadi, literally a courtyard play centre, is a childcare centre, located within the village itself. A package of the following six services is provided under the ICDS Scheme:

- Supplementary nutrition
- Non-formal pre-school education
- Immunization
- Health Check-up
- Referral services
- Nutrition and health education

The three services namely immunization, health check-up and referral are

delivered through the public health infrastructure viz., Health Sub Centres. Primary and Community Health Centres under the Ministry of Health and Family Welfare. The objectives of the scheme are to:

- Lay the foundation for proper psychological development of the child.
- Improve nutritional and health status of children in the 0-6 age group.
- Reduce incidence of mortality, morbidity, malnutrition and school drop-outs.
- Enhance the knowledge of the mother and family to look after the health, nutritional and development needs of the child as well as the pregnant and lactating mothers.
- Achieve effective coordination of policy and implementation among various departments to promote child development.

The target group includes children below 6 years and also pregnant and lactating mothers. For the year 2009-10, outlay of ICDS is ₹ 6705 crore out of ₹ 7200 crore for whole MWCD (93.13 per cent) and the Eleventh Plan outlay is ₹ 44400 crore. Honorarium to Anganwadi Workers (AWWs) and Anganwadi Helpers (AWHs) has been increased to ₹ 1500.00 and ₹ 750.00 respectively. Centre and State cost sharing ratio is 90:10 for the North East and 50:50 for other States including cost of supplementary nutrition and administrative expenses. Supplementary nutrition norms have been enhanced for normal children from ₹ 2.00 to ₹ 4.00. for severely malnourished children from 2.70 to 6.00 and for pregnant and lactating mothers from ₹ 2.30 to ₹ 5.00 per day.

As on 31st December 2008, 7073 ICDS projects have been sanctioned, along with 13,56,026 centres. The total number of children receiving supplementary nutrition was 7,12,22,892 and the number of mothers receiving supplementary nutrition was 1,48,30,892 and number of children receiving pre school education was 3,30,33,645. Some of the areas needing focussed attention are:

- Childhood malnutrition
- Relief and rehabilitation of rape victims
- Operationalizing ICPS (Integrated Child Protection Services Scheme)
- Adopting measures for control of Trafficking
- Ensuring a balanced sex ratio
- Reaching out to the marginalized and most vulnerable
- Training of functionaries

Emissions from vehicular, industrial, construction, agricultural and domestic activities result in air pollution thereby affecting the quality of air. Norms for ambient air quality have been notified. With a view to controlling air pollution and initiating policy measures, 23 air quality monitoring stations have been set up during 2008-09 covering 128 cities/towns in 26 states and 4 UTs. At present, sulphur dioxide, oxides of nitrogen and respirable suspended particulate matter are being monitored by State Pollution Control Boards/Pollution Control Committees. National Environmental Engineering Research Institute and Universities.

Environmental Impact Assessment (EIA)

EIA is a management tool used to minimize adverse impacts of the developmental projects on the environment and to achieve sustainable development. In the revised EIA Notification of September, 2006, projects have been categorized into category 'A' and 'B' depending on their likely pollution generation potential and re appraised for prior environmental clearance at the central and state level respectively. The Notification also provides for screening, public consultation and appraisal.

National River Conservation Plan (NRCP)

Untreated sewage dumped into our rivers is a major cause of river pollution. The total sewage generation in the country is about 36000 MLD. Against this, the total average treatment capacity is about 7000 MLD and 40 per cent of that capacity is in Delhi. This underlines the urgent need to expand the sewage treatment capacity in the country.

The NRCP has covered 164 towns along 35 polluted river stretches in 20 states and has created 7000 MLD including 4767 MLD capacity created under Ganga Action Plan (GAP).

The major achievement of Eleventh Plan is formation of National Ganga River Basin Authority giving national status to river Ganga by the present Prime Minister on 20th February, 2009. With the setting up of the Ganga River Basin Authority comprehensive management of the Ganga River Basin will be possible and easier. The proposal was unanimously endorsed by all the five States.

National Lake Conservation Plan (NLCP)

The NLCP provides assistance to states on 70-30 sharing basis. As on 31st March, 2009, a total of 40 projects for conservation of 57 lakes have been sanctioned in 13 states at a total cost of ₹ 856.76 crore Works for 12 lakes have been completed so far.

Climate Change

In recent years, global warming and the associated climate change has become a serious problem and cause of concern all over the world. This aspect needs to be looked into seriously and with due care. Therefore, the development process and its environmental impact has to be monitored closely in the perspective of sustainable development and suitable regulatory structures have to be devised to achieve the desired results.

The National Action Plan for Climate Change (NAPCC) announced by the Prime Minister last year outlines India's strategy to adapt to Climate Change and enhance the ecological stability for the Country's development path. Accordingly, 8 National Missions representing a multipronged, long term and integrated approach have been set up. These cover the areas of i) Solar Energy, ii) Enhanced Energy Efficiency, iii) Sustainable Habitat, iv) Water, v) Sustenance of the Himalayan Ecosystem, vi) Green India, vii) Sustainable Agriculture and viii) Sustainable Knowledge. These Missions have been institutionalized by concerned Ministries of the Government of India.

PEO

The Programme Evaluation Organisation (PEO) undertakes evaluation of selected programmes/schemes under implementation, as per requirements of the Planning

Commission and Ministries/Departments of Government of India. The evaluation studies are designed to assess the performance, process of implementation, effectiveness of the delivery system and impact of programmes. These studies are diagnostic in nature and aim at identifying the factors contributing to success/ or failure schemes through mid-course corrections and better design of future programmes.

The objectives of evaluation work taken up by PEO include objective assessment of process and impact of the development programmes, identifying the areas of success and failures at different stages of administration and execution, analysis of reasons for success or failure, examining extension methods and people's reactions thereto and deriving lessons for further improvement in the formulation and implementation of the new programmes schemes. Evaluation in this sense has been recognized as quite distinct and separate from analysis of progress and review on the one hand, and inspection, checking and scrutiny of the schemes and works on the other hand. PEO has so far conducted 203 studies. At present, there are 15 on going studies on various important schemes of Government of India which are at various stages of evaluation by PEO.

24 Rural and Urban Development

INDIA has been a welfare state ever since her independence and the primary objective of all governmental endeavours has been the welfare of its millions. The policies and programmes have been designed with the aim of alleviation of rural poverty which has been one of the primary objectives of planned development in India. It was realized that a sustainable strategy of poverty alleviation has to be based on increasing the productive employment opportunities in the process of growth itself. Elimination of poverty, ignorance, diseases and inequality of opportunities and providing a better and higher quality of life were the basic premises upon which all the plans and blueprints of development were built.

Rural development implies both the economic betterment of people as well as greater social transformation. In order to provide the rural people with better prospects for economic development, increased participation of people in the rural development programmes, decentralization of planning, better enforcement of land reforms and greater access to credit are envisaged.

Initially, main thrust for development was laid on agriculture industry, communication, education, health and allied sectors but later on it was realized that accelerated development can be provided only if governmental efforts are adequately supplemented by direct and indirect involvement of people at the grass root level. Accordingly, on 31 March 1952, an organization known as Community Projects Administration was set up under the Planning Commission to administer the programmes relating to community development. The community development programme inaugurated on October 2, 1952, was an important landmark in the history of the rural development. This programme underwent many changes and was handled by different Ministries.

In October 1974, the Department of Rural Development came into existence as a part of Ministry of Food and Agriculture. On 18 August 1979, the Department of Rural Development was elevated to the status of a new Ministry of Rural Reconstruction. That Ministry was renamed as Ministry of Rural Development and again converted into a Department under the Ministry of Agriculture and Rural Development. It was later rechristened as Ministry of Agriculture in September 1985. On July 5, 1991 the Department was upgraded as Ministry of Rural Development. Another Department viz. Department of Wasteland Development was created under this Ministry on 2nd July 1992. In March 1995, the Ministry was renamed as the Ministry of Rural Areas and Employment with three departments namely Department of Rural Employment and Poverty Alleviation, Rural Development and Waterland Development.

Again, in 1999 Ministry of Rural Areas and Employment was renamed as Ministry of Rural Development. This Ministry has been acting as a catalyst effecting the change in rural areas through the implementation of wide spectrum of programmes which are aimed at poverty alleviation, employment generation, infrastructure development and social security. Integrated development of rural areas is one of the abiding tasks before the Government of India. The National Minimum Programme of the Central Government reiterates the cardinal importance of villages to the overall

development of the country and commits to work towards development of rural areas, which for various reasons could not keep pace with urban areas in the past.

The Ministry, at present, consists of the following three Departments:

1. Department of Rural Development
2. Department of Land Resources
3. Department of Drinking Water Supply

A brief description of major rural development schemes are given here.

MAHATMA GANDHI NATIONAL RURAL EMPLOYMENT GUARANTEE ACT

Implemented by the Ministry of Rural Development, National Rural Employment Guarantee Act (NREGA) is the flagship programme of the Government that directly touches lives of the poor and promotes inclusive growth. During 2009-10, it has been rechristened as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). The Act aims at enhancing livelihood security of households in rural areas of the country by providing at least one hundred days of guaranteed wage employment in a financial year to every household whose adult members volunteer to do unskilled manual work.

The Act came into force on February 2, 2006 and was implemented in a phased manner. In Phase one it was introduced in 200 of the most backward districts of the country. It was implemented in an additional 130 districts in Phase two 2007-2008. As per the initial target, NREGA was to be expanded countrywide in five years. However, in order to bring the whole nation under its safety net and keeping in view the demand, the Scheme was extended to the remaining 274 rural districts of India from April 1, 2008 in Phase III.

MGNREGA is the first ever law internationally, that guarantees wage employment at an unprecedented scale. The primary objective of the Act is augmenting wage employment. Its auxiliary objective is strengthening natural resource management through works that address causes of chronic poverty like drought, deforestation and soil erosion and so encourage sustainable development. The process outcomes include strengthening grassroot processes of democracy and infusing transparency and accountability in governance.

With its rights-based framework and demand driven approach, MGNREGA marks a paradigm shift from the previous wage programmes. The Act is also a significant vehicle for strengthening decentralization and deepening processes of democracy by giving a pivotal role to the Panchayati Raj Institutions in planning, monitoring and implementation. Unique features of the ACT include, time bound employment guarantee and wage payment within 15 days, incentive-disincentive structure to the State Governments for providing employment as 90 per cent of the cost for employment provided is borne by the Centre or payment of unemployment allowance at their own cost and emphasis on labour intensive works prohibiting the use of contractors and machinery. The Act also mandates a 33 per cent participation for women.

Increasing Employment Opportunities: In the first year of implementation (2006-07) in 200 districts, 2.10 crore households were employed and 90.5 crore person days were generated. In 2007-08, 3.39 crore households were provided employment and

143.5 crore persondays were generated in 330 districts. In 2008-2009, 4.51 crore households have been provided employment and 216.32 crore persondays have been generated. In 2009-10 upto December, 2009 160 crore persondays employment has been generated.

Enhancing Wage Earning and Impact on Minimum Wage: At the national level overseas wage paid under this programme has increased from ₹ 65 (2006-09) to ₹ 88.48 in (2009-10). The enhanced wage earnings have led to strengthening of the livelihood resource base of the rural poor in India; in 2007-2008, more than 68 per cent of funds utilised were in the form of wages paid to the labourers. In 2008-2009, 73 per cent of the funds have been utilized in the form of wages.

Increasing Outreach to the poor: Self targeting in nature, the Programme has high works participation of marginalized groups like SC/ST (57 per cent), women (43 per cent) in 2007-2008, In 2008-2009 the participation is SC/ST (54 per cent) and women (48 per cent) which was increased in 2009-10 to 49 per cent.

Strengthening Natural Resource Base of Rural India: In 2007-08, 17.88 lakhs works have been undertaken, of which 49 per cent were related to water conservation. In 2008-2009, 27.75 Lakhs works have been undertaken, of which 46 per cent are related to water conservation. In 2009-10, 36.51 lakhs works were undertaken of which 51 per cent constituted water conservation 16 per cent rural connectivity and 14 per cent land development.

Financial Inclusion of the poor: The Central government has been encouraging the state governments to make wage payment through bank and post office accounts of wage seekers. In 2009-10, 8.57 crore bank and post office accounts have been opened to disburse wages. The Ministry is also encouraging the MGNREGA workers to obtain insurance under Jan Shri Bima Yojana of LIC.

PRADHAN MANTRI SADAK YOJANA

The Pradhan Mantri Gram Sadak Yojna (PMGSY) was launched on 25 December 2000 as a fully funded Centrally Sponsored Scheme. The primary objective of the PMGSY is to provide connectivity to all the eligible unconnected habitations of more than 500 persons in the rural areas (250 persons in the hilly the tribal and desert areas) by good quality all-weather roads. 1,36,464 habitations were targeted under the scheme.

Under Bharat Nirman, goal has been set to provide connectivity to all the habitations with population of more than 1000 in the plain areas and habitations with a population of 500 or more in hilly and tribal areas in a time-bound manner by 2009. The systematic upgradation of the existing rural road networks is also an integral component of the scheme. Accordingly, an Action Plan has been prepared for connecting 54,648 habitations with 1,46,185 km of all-weather roads. This Action Plan also envisages upgradation/renewal of 1,94,130 km of the existing rural road network. Till December 2009, a total of 33,812 habitations have been connected by constructing 97,583 km. rural roads. In addition, 1,84,353 km existing rural roads have been upgraded/renewed. Projects for connecting 20,067 habitations are at different stages of implementation.

RURAL HOUSING

Housing is one of basic requirements for human survival. For a shelterless person, possession of a house brings about a profound social change in his existence, endowing him with an identity, thus integrating him with his immediate social milieu.

The Ministry of Rural Development is implementing Indira Awaas Yojana (IAY) with a view to providing financial assistance to the rural poor living below poverty line for construction of pucca house. The details of the scheme alongwith its performance are given below:

INDIRA AWAAS YOJANA (IAY)

The Government of India is implementing Indira Awaas Yojana (IAY) since the year 1985-86 to provide financial assistance for construction / upgradation of dwelling units to the below poverty line (BPL) rural households belonging to the Scheduled Castes, Scheduled Tribes and freed bonded labourers categories. From the year 1993-94, the scope of the scheme was extended to cover non-Scheduled Castes and Scheduled Tribes rural BPL poor, subject to the condition that the benefits to non-SC/ST would not be more than 40 per cent of the total IAY allocation. The benefits of the Scheme have also been extended to the families of ex-servicemen of the armed and paramilitary forces killed in action, 3 per cent of the Houses are reserved for the rural below poverty line physically and mentally challenged persons, From 2006-07 onward, funds and physical targets under IAY are also being earmarked for BPL minorities in each state.

Under the scheme, financial resources are shared between the centre and the states on a 75 : 25 basis. In the case of UTs, entire funds are provided by the centre. For North Eastern States, the funding ratio at present is 90:10. Since, reduction of shelterlessness is the primary objective, 75 per cent weightage is given to housing shortage and 25 per cent to the poverty ratios prescribed by Planning Commission for state level allocation. For district level allocation, 75 per cent weightage is given again to housing shortage and 25 per cent to SC/ST population of the concerned districts.

On the basis of allocations made and targets fixed, district Rural Development Agency (DRDAs)/Zilla Parishad (ZPs) decide Panchayat-wise number of houses to be constructed under IAY and intimate the same to the concerned Gram Panchayat. Thereafter, the Gram Sabha selects the beneficiaries, restricting its number to the target allotted, from the list of eligible households from the Permanent IAY Waitlists. No further approval of the higher authority is required.

The ceiling on construction assistance under the IAY has been enhanced w.e.f. 1.4.2008, ₹ 25, 000/- to ₹ 35,000/- per unit in the plain areas and from ₹ 27,500/- to ₹ 38,500/- in hilly/difficult areas. For upgradation of kutchha house, the financial assistance has also been enhanced from ₹ 12,500/- to ₹ 15,000/- per unit. In addition, the Reserve Bank of India has been requested by the Ministry of Finance to include IAY houses under the Differential Rate of Interest (DRI) scheme for lending upto ₹ 20,000 per unit at an interest rate of 4 per cent.

Further, the dwelling units should invariably be allotted in the name of a female member of the beneficiary household. Alternatively, it can be allotted in the name of both husband and wife. Only in case there is no eligible female member in the family, the house can be allotted in the name of an eligible male member.

The Sanitary latrine and smokeless chullah and proper drainage are required for each IAY house. Latrine could be constructed separate for the IAY house on the site of beneficiary.

The construction of the houses is the sole responsibility of the beneficiary. Engagement of contractors is strictly prohibited.

No specific type design has been stipulated for an IAY house. Choice of design, technology and materials for construction of an IAY house is the sole discretion of the beneficiaries.

About 218.69 lakh houses have been constructed under IAY since inception of the Scheme with an expenditure of ₹ 52365.76 crores (upto 11/1/2010)

Rural Housing is also a one of the six component of Bharat Nirman. Under Bharat Nirman, 60 lakh houses are to be constructed under the Scheme of Indira Awaas Yojana in four years w.e.f 2005-06 to 2008-09. Against this target, 71.76 lakh houses were constructed with an expenditure of ₹ 21720.39 crore. In the second phase, target under Bharat Nirman has been to construct 120 lakh houses during the next five years starting from 2009-10.

Swaranjayanti Gram Swarojgar Yojana

To supplement the wage employment and to provide alternative avenues for further augmenting the economic conditions of rural poor, assisting the rural poor in self employment by encouraging group and cluster activities, providing skill development opportunities, credit linkages and subsidies and creation of marketing opportunities for products has been another major plank of the Poverty alleviation schemes of the Government. Launched on 1st April 1999, after restructuring and merging the erstwhile Integrated Rural Development Programme (IRDP) and its allied programmes, namely Training of Rural Youth for Self Employment (TRYSEM), Development of Women and Children in Rural Areas (DWCRA), Supply of tools kits in Rural Areas (SITRA) and Ganga Kalyan Yojana (GKY), besides Million Wells Scheme (MWS), SGSY is an integrated scheme for providing opportunities of self employment to the rural poor.

The assisted families (Swarojgaris) may be individuals or Groups (Self Help Groups). However, the emphasis is on Group approach and also with particular emphasis on group formation by women and the weaker sections. It has been conceived as a holistic programme of self employment and some of its salient features are; Organizing the rural poor into Self Help Groups (SHGs) through social mobilization; Key activity and development of activity clusters; Training and marketing support to the Swarojaris; Involvement of NGOs/ CBOs/ Animators in social mobilization and training and capacity building of Self Help Groups.

Families below the Poverty Line (BPL) in rural areas constitute the target group of the SGSY. Within the target group, special safeguards have been provided to vulnerable sections, by way of reserving 50 per cent benefits for SCs/STs, 40 per cent for women, 15 per cent for minorities and 3 per cent for disabled persons.

Assistance under the SGSY, to individual Swarogaries or Self Help Groups, is given in the form of Revolving Funds Assistance and Capital Subsidy by the government linked to credit by the banks. The Revolving Fund Assistance is to augment the group corpus of SHGs and provide them with immediate liquidity to meet their emergent consumption needs. Credit is critical component of the SGSY, subsidy being a minor and enabling element. Accordingly, the SGSY envisages greater involvement of the banks. They are to be involved closely in the planning and preparation of project reports, identification of activity clusters, infrastructure planning as well as capacity building and choice of activities of the SHGs, selection of individual Swarogaries, pre-credit activities and post credit activities and post-credit monitoring including loan recovery. Credit targets under the SGSY are fixed every year by a Committee having representatives from the Ministry of Finance. NABARD, Reserve

Bank of India (RBI), State Bank of India (SBI) and Ministry of Rural Development. The percentage of Credit mobilization has increased over the years from 12.96 per cent in 1999-2000 to 89.83 per cent in the year 2009-10. The total credit target for the year 2009-10 was fixed at ₹ 4443.91 crores. Against this target the total credit disbursed upto December, 2009 was ₹ 2504.64 crore (56.36 per cent). A close coordination between different agencies responsible for implementation of SGSY is vital for the success of the programme.

An initiative has been taken to set up dedicated training institute for skill training of rural BPL. for self /wage employment from 2008-09. These institutes (RSETIs) would be set up in each district of the country in partnership with the Banks. One time grant assistance of ₹ one crore for infrastructure creation is being provided by the centre.

The scheme also provides for setting up of haats at district and state levels on demand basis. Steps has been initiated in the 2009-10, to restructure the SGSY as National Rural Livelihoods Mission (NRLM) and to implement it in a mission mode for targeted and time bound delivery of results.

Since its inception, 36.78 lakh SHGs have been formed out of which 24.09 lakh SHGs have passed Grade I and 11.24 lakhs have passed Grade II, while 8.36 lakh have taken up economic activities. During 2009-10, till December 2009, 11.65 lakh swarozgaries have been assisted out of which 7.85 lakhs are women (67.36 per cent).

NATIONAL SOCIAL ASSISTANCE PROGRAMME

Article 41 of the Constitution of India directs the State to provide public assistance to its citizens in case of unemployment, old age, sickness and disablement and in other cases of undeserved want within the limit of its economic capacity and development. In accordance with the Directive Principles of State Policy, the Government of India introduced in 1995 the National Social Assistance Programme (NSAP) to lay foundation to a National Policy for Social Assistance for the poor. The NSAP aims at ensuring minimum national standard for social assistance in addition to the benefits that state are currently providing or might provide in future. At present NSAP comprises Indira Gandhi National Old Age Pension Scheme (IGNOAPS), National Family Benefit Scheme (NFBS) Annapurna, Indira Gandhi National Widow Pension Scheme and Indira Gandhi National Disability Pension Scheme.

Under IGNOAPS which was launched on 19 November 2007, ₹ 200 per month per beneficiary is provided by way of central assistance to all persons who are 65 years or higher and belonging to a family living below the poverty line. Earlier under National Old Age Pension Scheme (NOAPS), the pension was restricted to destitutes only. The number of beneficiaries under IGNOAPS is estimated to reach 158 lakh persons as compared to 87 lakh under NOAPS.

The amount of old age pension was increased from ₹ 75 to ₹ 200 per month with effect from 1st April 2006 and the States were urged to contribute at least another ₹ 200 so that an old age pension beneficiary could get at least ₹ 400 per month. At present 18 States/UTs are providing pension ₹ 400 or more. 11 states/UTs are providing pension more than ₹ 200 and less than ₹ 400. The remaining 6 States/UTs are providing ₹ 200 per month.

Annapurana Scheme was introduced on 1st April 2000 to provide 10 Kgs of food grains per month free of cost to eligible beneficiaries who could not be covered under NOAPS, Under NFBS, ₹ 10000 is provided to a BPL family in case of natural or

accidental death of a primary bread winner in the family in the age group of 18 to 64 years.

NATIONAL FAMILY BENEFIT SCHEME (NFBS)

At inception, grant of ₹ 5000 in case of death due to natural causes and ₹ 10,000 in case of accidental death of the "primary breadwinner" was provided to the bereaved household under this Scheme. The primary breadwinner specified in the Scheme, whether male or female, had to be a member of the household whose earning contributed substantially to the total household income. The death of such a primary bread winner occurring whilst he or she was in the age group of 18 to 64 years i.e., more than 18 years of age and less than 65 years of age, made the family eligible to receive the grant under the Scheme. In 1998, the amount of benefit under NFBS was raised to ₹ 10,000 in case of death due to natural causes as well as accidental causes. During 2008-09, 4.23 lakh BPL families have benefited under the Scheme. During 2009-10, till December 2009, 1.47 lakh BPL families benefited under the Scheme.

In February 2009, central government has approved a pension of ₹ 200 per month to BPL, widows in the age group of 40-64 years. The estimated number of beneficiaries under Indira Gandhi National Widow Pension Scheme (IGNWPS) is 45 lakhs. During 2009-10, till December 2009, 23 lakh beneficiaries have been covered under the scheme. Similarly central government also introduced a disability pensions of ₹ 200 per month under Indira Gandhi National Disability Pension Scheme (IGNDPS) for BPL, persons with severe or multiple disabilities between the age group of 18-64 years. It is estimated that 15 lakh beneficiaries are to be covered under this scheme. During 2009-10, till December 2009, 5.00 lakh beneficiaries have benefited from the Scheme. The States are in the process of identifying the eligible beneficiaries under both the Schemes.

Provision of Urban Amenities in Rurla Areas (PURA)

Provision of Urban Amenities in Rural Areas (PURA). Scheme was implemented on a pilot basis from 2004-05 for three years in seven clusters, one each in the State of Andhra Pradesh, Assam, Bihar, Maharashtra, Orissa, Rajasthan and Uttar Pradesh. ₹ 30 crores were released during 2004-05 to 2006-07. The cumulative expenditure up to 31 January 2010 was ₹ 25.54 crores against the total release. The pilot phase ended in March 2007. Meanwhile, efforts continued to prepare a restructured PURA scheme in consultation with various stakeholders. The restructured scheme has been approved for implementation during 11th Plan on a pilot basis. Budgetary allocation for the scheme is ₹ 248 crores. The objectives of the scheme are to provide livelihood opportunities and urban amenities in rural areas for bridging rural-urban divide and improving the quality of life. The scheme will be implemented under the framework of Public Private Partnership (PPP) between Gram Panchayats and Private Sector Partner.

DRDA ADMINISTRATION

A Centrally-sponsored scheme, District Rural Development Agency (DRDA) administration was launched on 1 April 1999 with the objective of strengthening the DRDAs and making them more professional in their functioning. The funding pattern of the DRDA administration is in the ratio of 75:25 between the Centre and the States. Non-NE and for NE-States it is 90:10. In the case of UTs it is hundred per cent under the Scheme. During 2009-2010 out of total budgeted allocation of ₹ 250 crore, an amount of ₹ 249.64 crore has been released.

CAPART

The Council for Advancement of People's Action and Rural Technology (CAPART) is an autonomous organisation under the Ministry of Rural Development. It was set up in September 1986, as a supporting and funding agency for the voluntary organisations. Its primary objective is to promote voluntary action through community participation and to propagate appropriate rural technologies for the benefit of rural masses. It has a network of regional centres at Jaipur, Lucknow, Ahmedabad, Bhubaneswar, Patna, Chandigarh, Hyderabad, Guwahati and Dharwad. The regional committees are empowered to sanction projects up to an outlay of ₹ 25 lakh in their respective regions. The Budget allocation for CAPART during the year 2009-10 was ₹ 50 crore.

WATERSHED DEVELOPMENT PROGRAMMES

The Department of Land Resources in the Ministry of Rural Development is administering three area-based watershed programmes for development of wastelands/degraded lands namely Drought Prone Areas Programmes (DPAP), Desert Development Programme (DDP) and Integrated Wastelands Development Programme (IWDP) to check the diminishing productivity of wasteland and loss of natural resources.

The DPAP was launched in 1973-74 to tackle the special problems faced by those areas that are constantly afflicted by drought conditions. Presently, 972 blocks of 195 districts in 16 States are covered under the Programme. DDP was launched in 1977-78 to mitigate the adverse effects of desertification. Presently, 235 blocks of 40 districts in 7 States are covered under the Programme. IWDP has been under implementation since 1989-90. The projects under the IWDP are generally sanctioned in areas that are not covered under DDP or DPAP.

The Department of Land Resources Ministry of Rural Development has, accorded high priority to holistic and sustainable development of rained areas through watershed programmes. The three watershed programmes of the Department of Land Resources namely DPAP, DDP and IWDP have been consolidated into a single programme namely 'Integrated Watershed Management Programme (IWMP)'. The Government approved the modified scheme of IWMP on 26.2.2009. This consolidation is for optimum use of resources, sustainable outcomes and integrated planning.

The Salient features of IWMP are; Dedicated institutions at State, District and Village level to implement the Programme; Flexibility in the project duration (4 to 7 years); Livelihood component added to the programme; Differential cost norm of ₹ 12,000/ha for the plains and ₹ 15,000/ha. for the hilly and difficult areas; Funding pattern in the ratio of 90:10 is between Centre and States.

Integrated Wastelands Development Programme

Integrated Wastelands Development Programme (IWDP), a Centrally Sponsored Programme, has been under implementation since 1989-90. The programme is being implemented on watershed basis under Common guidelines for Watershed Development w.e.f. 1st April 1955. The development of wastelands and degraded lands under the programme is expected to promote generation of employment in rural areas besides increasing land productivity in the project areas.

Since 1995-92 to 2009-10, 1877 IWDP projects covering an area of 10.722 Million hectares have been sanctioned and ₹ 3797.09 crore has been released as on 31 December 2009.

LAND REFORMS

The National Land Records Modernization Programme (NLRMP)

With a view to assisting the States/UTs in the task of computerization of land records and strengthening their revenue administration and training infrastructure for survey and settlement, two Centrally-sponsored schemes, viz. (i) Computerization of Land Records (CLR) and (ii) Strengthening of Revenue Administration and Updating of Land Records (SRA&ULR) were being administered by the Department of Land Resources (DoLR) up to 2007-08. During 2008-09, these two schemes were merged into one modified scheme in the shape of the National Land Records Modernization Programme (NLRMP), combining the key components of the two schemes and rationalizing them into one integrated and enhanced scheme. The NLRMP was approved by the Cabinet on 21 August 2008. The activities being supported under the Programme, inter alia, include completion of computerization of the records of rights (RoRs), digitization of maps and updating of land records, survey/resurvey using modern technology including aerial photogrammetry, computerization of registration, automatic generation of mutation notices, and training and capacity building of the concerned officials and functionaries. Connectivity amongst the land records and registration offices and land records management centers at tehsil/taluk/circle/block level are also being supported.

A major focus of the Programme is on citizen services, such as providing computerized copies of the records of rights (RoRs) with maps; other land-based certificates such as caste certificates, income certificates (particularly in rural areas), domicile certificates; information for eligibility for development programmes; land passbooks; free access of property owners to their records as the records will be placed on the websites with proper security IDs. Abolition of stamp papers and payment of stamp duty and registration fees through banks, etc., e-linkages to credit facilities, automatic and automatic mutations would be possible, and single window service or the webenabled access will save time and effort in obtaining RoRs, etc., and there will be a significant reduction in land-related litigation, etc.

National Rural Drinking Water Programme (NRDWP)

The Ministry of Rural Development is mandated to provide safe drinking water in all rural habitations. To achieve this objective, Department of Drinking Water Supply, under the Ministry of Rural Development is implementing a number of Programmes like National Rural Drinking Water Programme (NRDWP) to resolve drinking water crisis in rural areas. ARWSP was started in 1972-73 assist States and UTs with 100 per cent grants-in-aid to implement drinking water supply schemes in villages.

A Mission approach was given to the entire programme when a Technology Mission on Drinking Water Management, named as the National Drinking Water Mission (NDWM), was introduced in 1986 NDWM was renamed as Rajiv Gandhi National Drinking Water Mission (RGNDWM) in 1991 and Department of Drinking Water Supply was created in the year 1999. Ensuring equity in availability of safe drinking water with regard to gender, socially and economically weaker sections of the society, school children, socially vulnerable groups such as pregnant and lactating mothers, especially disabled and senior citizens, etc, has been one of the prime concerns while drafting the Eleventh Plan document. It was also decided that the major issues which need tackling during this period are problem of sustainability, water availability and supply, poor water quality, centralized vs. decentralized approaches. In order to give effect to these issues, the Rural Water Supply Guidelines

have been revised w.e.f 1st April 2009. The revised guidelines are known as National Rural Drinking Water Programme (NRDWP). During Bharat Nirman Phase 1 period 55,067 uncovered and about 3.31 lakh slipped back habitations were to be covered with provision of drinking water facilities. In addition, 2.17 lakh quality affected habitations were to be addressed for water quality problems.

Changes made in approach for RWS in XI Plan

The following paradigm shift is made in the recently approved rural water supply programme guidelines for ensuring sustainable and environmentally friendly drinking water supply projects.

- Move away from over dependence on single source to multiple sources through conjunctive use of surface water, groundwater and rainwater harvesting.
- Focus on ensuring sustainability in drinking water schemes and prevent slip back.
- Encourage water conservation methods including revival of traditional water bodies.
- Move forward towards achieving household level drinking water security through proper water demand and budgeting.
- Convergence of all water conservation programme at the village level.
- Focus on ensuring household level drinking water security through preparation of village water security plans.
- Conscious move to get away from high cost treatment technologies for tackling arsenic and fluoride contamination to development of alternative sources in respect of arsenic and alternated sources/dilution of aquifers through rainwater harvesting in respect of tackling fluoride contamination.
- Convergence of all water conservation programme at the village level.
- In respect of nitrate contamination, treatment of catchment area through simple measures such as fencing and effective implementation of TSC programme, prevention of sewage/animal waste leaking into the surface/underground water sources, promoting ecological sanitation to reduce use of inorganic fertilizers should be our focus.
- For tackling salinity problem, solar desalination and dilution through rainwater harvesting to be adopted.
- Linkage of National Rural Drinking Water Quality Monitoring and Surveillance Programme with the recently approved Jalmani guidelines for implementation of Stand-alone drinking water purifications systems in rural schools.
- The five grass root level workers trained for NRDWQM&SP are the ambassadors for achieving the household level drinking water security in the rural India. ASHA worker is the linkage to NRHM.
- Apart from XII FC funds, GPs can utilize the untied funds available under NRIHM for meeting O and M expenses of drinking water supply schemes.
- Move away from off-line unconsolidated figures to on-line details of data entry and linkage with Census survey and NHFS survey.
- Encourage handing over of management of rural drinking water schemes (RWS) to the Panchayat Raj Institutions (incentive of 10 per cent of the NRDWP allocation for the States that transfer the management, is introduced).

In order to ensure personalization of the approaches mentioned above, the following main changes have been incorporated in the rural water supply guidelines.

- Awarding performance rather than non-performance of States. This is done by removing extra weighted points in the allocation criteria for the central Government assistance to the States in regard to number of uncovered/partially covered habitations and water quality affected Habitations;
- The allocation criteria depends on 2001 census population figure, SC/ST population, number of DDP/DPAP/HADP blocks; special category Hill States in terms of rural areas.
- A Certain percentage is allocated as incentive fund for the States as extra weightage points for those which transfer the assets created to the Panchayati Raj Institutions.
- A certain percentage viz., 20 per cent is reserved for implementing projects by the States for bringing in sustainability to drinking water schemes. This 20 per cent is to be fully borne by the Government of India as opposed to 50 per cent in regard to other components of the allocation.
- In order to encourage the difficult States of North-East and J&K, the fund sharing pattern for the States has been liberalized from the existing 50:50 (Centre to State) to 90:10 (Centre to State).

Components of revised Rural Water Supply Programme

To ensure that all aspects of rural water supply are adequately addressed, there are different components of RWSP. 10 per cent of the overall amount allocated to the drinking water sector is earmarked for North-Eastern States. Recently, Cabinet has approved the change in funding pattern and the percentages of allocation under different components, and the funding pattern of these components are as under :

Component	Distribution of annual Budgetary allocation	Centre : State Ratio
NRDWP (Coverage)	30%	50:50*
NRDWP (Water Quality)	20%	90:10**
Operation and Maintenance (O&M)	10%	
NRDWP (Sustainability)	20%	100:0
NRDWP (Natural Calamity)	5%	100:0
NRDWP (DDP Areas)	10%	100:0
NRDWPS (Support)	5%	100.0

* For all States/Union Territories except North Eastern States (Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura) and Jammu and Kashmir.

** For North Eastern States (Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura) and Jammu and Kashmir.

RWSP—Criteria for allocation of funds

NRDWP (Normal) : State-wise allocation and releases under NRDWP is made by taking into account the 2001. Census rural population, Rural SC/ST population, area under DDP, HADP, DPAP, special category Hill States in terms of rural areas and

Rural population managing rural drinking water supply programme. The components for weightage and percentage points are as under :

Criterion	Weightage
Rural Population 2001 Census	40
Rural SC / ST Population	10
Rural population managing rural drinking water supply schemes	10
States under DDP, DPAP, HADP and special category Hill States in terms of rural areas	40

NRDWP (DDP) : In case of NRDWP (DDP Areas), the criteria for allocation of funds would be the same as that for the other components except that the relevant information pertaining to rural areas of DDP blocks would be considered.

Special Provision for SCs/STs

To accelerate the assured availability of potable drinking water on a sustainable basis in SC and ST dominant habitations, the States/UTs are required to earmark at least 25 per cent of the NRDWP funds for drinking water supply to the SC dominated habitations and a minimum of 10 per cent for the ST dominated habitations. Habitations in which more than 40 per cent of the population belongs to SCs are considered as SC dominated and with more than 40 per cent STs are considered as ST dominated. States that have achieved full coverage of SC/ST households with adequate safe drinking water as per the State norms may incur lower level of expenditure on SC/ST but not in any case below the percentage of SC and ST population in the State. Where the percentage of SC or ST population in a particular State is high and warrants earmarking/Utilization of more than the stipulated provisions, additional funds may be utilized. The State Governments/UT Administration may separately monitor the status of assured availability of potable drinking water in SC/ST habitations.

Special Provisions to North Eastern States and J and K State

The Department of Drinking Water Supply has given flexibility in the guidelines for implementation of rural water supply programme in respect of North Eastern States as 10 per cent of the total Central outlay for the programme is earmarked for the NE States. To ensure that the unutilized funds released to North Eastern States do not lapse, a Non-lapsable Central Pool of Resources has been created. Any unutilized funds of Government of India share are credited in to this Pool under which the State Governments can take up various projects. Keeping in view the problem faced by the NE States and Jammu and Kashmir in providing State -wise , recently Cabinet has approved the change in funding pattern for North East States and Jammu and Kashmir from 50:50 to 90:10, between Centre and the respective States.

Special focus on DDP Areas

Keeping in view the special problems faced by people living in the DDP areas, under RWSP, 10 per cent of the total fund is kept aside and allocated to States on 100 per cent grant basis for rural water supply in the identified DDP blocks. There are 235 DDP blocks in 40 districts of 7 States. In DDP blocks, States are to provide additional 30 litre per person per day for livestock.

Bharat Nirman - Rural Drinking Water

To build rural infrastructure, Bharat Nirman has been launched by the Government of India in 2005 to be implemented in a period of four years from 2005-06 to 2008-09. Rural drinking water is one of the six components of Bharat Nirman. During Bharat

Nirman period, 55,067 uncovered and about 3.31 lakh slipped-back habitations are to be covered with provisions of drinking water facilities and 2.17 lakh quality-affected habitations are to be addressed for water quality problem.

Strategy adopted to achieve Bharat Nirman targets

i) Uncovered habitations : Against 55,067 uncovered habitations to be covered during the Bharat Nirman period, 54,440 habitations have been covered by March, 2009. The remaining habitations 627, out of which some are in difficult areas lacking sustainable sources of drinking water, are proposed to be covered with provision of drinking water supply systems during Bharat Nirman Phase II.

During 2009-10, against a target of coverage of 586 uncovered habitations, 251 habitations were covered and the balance of 376 habitations is proposed to be covered during 2010-11. Against this so far 31 habitations have been covered.

ii) Slipped habitations : In case of slipped habitations, out of 3,31,604 habitations to be covered during the Bharat Nirman period, 3,58,362 habitations have been covered by March, 2009. The entire strategy and focus of the Department and its current programme in the field is toward sustainability in all drinking water schemes, so that the phenomenon of recurring slippage does not occur. Accordingly, no weightage is given for NC/PC habitations for coverage in the new NRDWP guidelines for allocation of funds.

Norms for rural drinking water supply

Under the NRDWP guideline the norms that have been adopted since the inception of the programme (1972) for providing potable drinking water to the rural population based on basic minimum need is as follows :

40 litres per capita per day (lpcd) for humans to meet the following requirements based on basic minimum need :

Purpose	Quantity (LPCD)
Drinking	3
Cooking	5
Bathing	15
Washing utensils and house	7
Ablution	10

FUNDS ALLOCATED FOR RWS SCHEME

(Amount in ₹ crore)

Year	BE	RE
2005-06	4,050.00	4,060.00
2006-07	5,200.00	4,560.00
2007-08	6,500.00	6,400.00
2008-09*	7,300.00	7,300.00
2009-10	8,000.00	8,000.00
2010-11	9,000.00	7,999.00

* ₹ 100 crore additional funds have been provided for Standalone water purification systems in rural schools.

For the 11th Five Year Plan, allocation for rural drinking water has been substantially enhanced to ₹ 39,490 crore.

Contamination of drinking water in rural areas of the country

With the advent of 'India Mark-II hand pump technology', the focus of selection of drinking water sources shifted to ground-water, as they were considered biologically safe. Use of ground water as drinking water source has helped in overcoming the problem of bacteriological contamination in drinking water supply to a large extent, but it has also led to water quality problems due to various chemical contaminants found in the ground water. These contaminants are either found naturally or caused by various human activities. Except for nitrate, all others occur naturally or caused by various human activities. Except for nitrate, all others occur naturally and are released from the geological formations. Nitrate contamination occurs due to leaching of fertilizers and or of untreated sewerage into aquifers. It was also observed that naturally occurring excess arsenic, fluoride, salinity and iron also leached into the aquifers and they were contaminating them. In many parts of the country, drinking water quality has become a major concern as ground water table goes down further. High levels of natural contaminants such as fluoride, arsenic and other chemical pollutant have deleterious impact on human body.

The biological contamination of a large number of drinking water sources also poses a serious problem. This is primarily caused due to the practice of open-defecation and poor sanitary conditions around drinking water sources in rural areas. After introduction of rural drinking water supply and sanitation programmes in the villages, the prevalence of water-borne diseases such as diarrhoea, cholera, hepatitis, etc. has decreased.

Jalmani - Installation of standalone water purification systems in rural schools.

With the objective of providing safe and clean drinking water to the children studying in water deficient rural schools, under Jalmani Programme, 100 per cent financial assistance is provided to states to install standalone water purification systems in rural schools.

To identify suitable water treatment technologies to be used under the programme, a high level technical committee under the chairmanship of Secretary, Department of Science and Technology, Government of India was formed. The committee identified the following six technologies.

- i) Physical separation including filtration, ultra-filtration and membrane filtration, adsorption, absorption
- ii) Ion exchange
- iii) Reverse Osmosis
- iv) Ultra-Violet Radiation
- v) Hybrid of Multiple Methods
- vi) Miscellaneous

Based on these, committee also suggested 47 products, to be used in the programme. The States were given the list of technologies as well as products and were given flexibility to select the appropriate products. For the implementation of this programme, detailed guidelines were also issued. Keeping in view the average cost of ₹ 20,000/- per school, ₹ 200 crore provided for the purpose have been allocated

and released to 28 States with a target to cover 1,00,000 rural school under the programme during 2008-09 and 2009-10.

Water Quality Monitoring and surveillance

In order to develop the Understanding and appreciation of safe and clean drinking water among rural communities and to enable them to carry out tests to determine the quality of drinking water, the National Rural Drinking water Quality Monitoring and Surveillance Programme (NRDWQM&SP) was launched in February 2006. The Programme aimed at empowering rural communities by:

- (i) Bringing awareness through Information, Education and Communication (IEC) activities to address ownership of the systems, Health Hazards due to poor drinking water quality, hygiene, sanitary survey, importance of environmental sanitation, etc.;
- (ii) training 5 grass root workers in each Gram Panchayat, which may be ASHA worker, Anganwadi worker, science teacher, high school girl child, panchayat member, retired army officials, etc.;
- (iii) in addition to 5 Gram Panchayat workers, 2, persons at the State level, 4 persons at the district and 5 persons at the Block level are also to be trained.

Under the programme, provision for water testing kits for each Gram Panchayat was made. For all these purposes, 100 per cent financial assistance has been provided to the State. As on 6 July 2010, 1.79 lakh chemical kits, 130.02 lakh bacteriological vials have been purchased / supplied, and 5.91 lakh persons have been trained in different States to carry out the water quality tests as per on-line data reported by the States. Since inception of the programme in 2006 and till 6 July 2010, about 4.56 lakh samples have been reported to be tested by GPs using field test kits. This helps in keeping surveillance on the quality aspects of drinking water sources. With effect from 1.4.2009, the NRDWQM&SP has been subsumed in the NRDWP and water quality testing is to be funded under the 5 per cent support fund.

Water quality testing laboratories

The Department also supports the setting up of district level and sub-divisional level laboratories in the States. So far 617 district laboratories have been established by the States/UTs using funds from the Centre, from their own resources and from other sources. 449 sub-divisional laboratories have also been set up in various States. As per IMIS data as on 31.3.2010, about 1.91 lakh water samples have been tested in district/sub-division water testing laboratories.

Quality-affected habitations:

Arsenic and Fluoride : Out of 2.17 lakh quality affected habitations in the country as on 1.4.2010 there are 6,548 habitations reported to be affected with Arsenic contamination and 26137 habitations with Fluoride contamination. During Bharat Nirman period, addressing water quality problems in these habitations have been accorded high priority. All arsenic-affected habitations have been addressed with projects for water quality problem. In case of Fluoride affected habitations, majority has been addressed with projects and the remaining ones are also being addressed during current year itself on priority.

Iron Affected: At the start of Bharat Nirman, 1,18,088 habitations were reported to have Iron contamination. These have been planned to be tackled by low-cost solutions since it is easy to address Iron contamination by dilution and stand along filter

plants. Institute of Materials Technology (IMMT), Bhubaneswar (a CSIR institution) has been identified as nodal institute/referral centre to address Iron contamination through use of Terracota filters (Terafil water filters systems) throughout the country. These filters can be locally made and have proven record of easy operation and maintenance.

Salinity : Similarly, 28,398 habitations have salinity problems which are mostly located in coastal areas. To tackle the salinity problem in these habitations, various technologies solutions viz. technologies developed by Bharat Atomic Research Centre (BARC), Defence Research and Development Organisation (DRDO), Council of Scientific and Industrial Research (CSIR), Department of Science and Technology, etc. are being used and to coordinate all these efforts to tackle salinity problems in the drinking water, Central Salt and Marine Chemicals Research Institute (CSMCRI), Bhavnagar - a CSIR laboratory has been identified as the model agency for the dissemination of simple/cost-effective technologies for tackling the salinity problem.

Nitrate : In the country, 13,958 habitations were reported to be affected with Nitrate contamination. Out of these 3032 habitations as on 1.4.2010 are yet to be tackled. This can be tackled by improving sanitation conditions and in some places by change in the use of fertilizes etc.

With regard to coverage of quality-affected habitations, during Bharat Nirman Period i.e. 2005-06 to 2008-09, against 2, 16, 968 habitations targeted, 50,168 habitations have been covered. The remaining quality-affected habitations are proposed to be covered during Bharat Nirman Phase II. The coverage of quality-affected habitations during 2009-10 and 2010-11 (as on 30.9.2010) is as given below:

Year	Target	Coverage
2009-10	1,23,408	32, 734
2010-11	41,094	3,923

Balance habitations are proposed to be covered in the third and final year of Bharat Nirman Phase-II.

Central Rural Sanitation Programme (CRSP)

In realization of the importance of sanitation for improving the quality of life and its impact on productivity, Ministry of Rural efforts to ensure total sanitation coverage. The ministry has also set for itself the target of 2012 for achieving total sanitation coverage which is more ambitious than that of the UN sponsored date which is 2015. The 'Central Rural Sanitation Programme' (CRSP) launched in 1986 aims at improving the quality of life of the rural poor and to provide privacy and dignity to women in rural areas. In 1999, 'Total Sanitation Campaign' (TSC) under restructured CRSP was launched to promote sanitation in rural areas. The Total Sanitation Campaign (TSC) is a community led and people-oriented programme. The objective is to make it a demand driven campaign through creation of awareness and objective is to make it a demand decision campaign through creation of awareness and provision of sanitary facilities in educational Institutions such as schools, anganwadis and in individual houses, which will result in inculcating hygienic practices amongst the young and in adults. Special thrust has also been given on school sanitation and hygiene education. An incentive scheme called Nirmal Gram Puraskar has been launched for Panchayati Raj Institutions which are successful in eliminating totally the practice of open defecation in their jurisdiction. In 2001 only about 22 per cent of the rural families had access to household toilets. Due to the success of the Total Sanitation

campaign, the percentage has gone up to 62.94 per cent of the number of households in 2001 and 36.57 per cent of the projected population in 2008 as per the latest available figures.

TSC has the following components:

- (i) Provision of individual household latrines : Incentives of ₹ 1500/- (₹ 2000/- in case of hilly and difficult areas) and ₹ 700/- for each toilet is given by Central and State Government respectively to BPL households after they construct and use toilets. APL households are motivated to construct toilets with their own funds or by taking loans from SHGs, banks, cooperative institutions etc;
- (ii) Provision of Toilets in Schools and Anganwadis with the cost shared by Central and State Government in the ratio of 70:30;
- (iii) Construction of Community Sanitary Complexes;
- (iv) Assistance to Production Centres of sanitary materials and Rural Sanitary Marts;
- (v) Solid and Liquid Waste Management.

The Scheme has the following Salient features:

- (i) District as a unit with project period-up to 5 years.
- (ii) Focus on awareness and demand generation through IEC
- (iii) Capacity Development and Community Participation key to success
- (iv) Panchayati Raj Institutions play key role.
- (v) Emphasis on hygiene education
- (vi) Flexibility to districts in implementation

As present, TSC is being implemented in 539 districts in a project mode. The total outlay for all 539 TSC projects sanctioned so far is ₹ 17885.54 crore.

NIRMAL GRAMPURASKAR

The incentive award scheme of Nirmal Gram Puruskar (NGP) has been launched to encourage the Panchayati Raj Institutions to take up sanitation promotion. The award is given to those PRIs which attain 100 per cent open defecation free environment. The concept of Nirmal Gram Puraskar has been acclaimed internationally as a unique tool of social engineering and community mobilization and has helped a difficult programme like rural sanitation to pick up. Each Gram Panchayat getting the NGP has a ripple effect in the surrounding villages. The Nirmal Gram Puraskar has ignited the imagination of Panchayat leaders throughout the country and made them champions of sanitation. IT has been the prime mover behind the amazing progress achieved in rural sanitation coverage since 2005. Since its inception in 2005, 225.75 Gram Panchayats and 158 Block Panchayats have been awarded. Ten district panchayats have also been proud recipients of this award. The details of the award since its inception is given below:

- 2005—38 Gram Panchayats and 2 Block Panchayats.
- 2006—760 Gram Panchayats and 9 Block Panchayats, 4 Institutions.
- 2007—4945 Gram Panchayats, 14 Block Panchayats, 9 Institutions.
- 2008—12144 Gram Panchayats, 105 Block Panchayats, 8 Zilla Panchayats, 10 Institutions.

- Sikkim has become first Nirmal State of the country.

Panchayati Raj Institutions

The Constitution (73rd Amendment) Act, 1992 that came into effect in April 1993 brought about major reform in local governance in the country. The formation of a separate Ministry of Panchayati Raj (MoPR) in May 2004 at the Centre was indicative of the determination of the Government of India to give a major push to such reform. The Ministry was set up primarily to oversee the implementation of Part IX of the Constitution, inserted by the Constitution (73rd Amendment) Act, 1992, the Panchayats (Extension to the Scheduled Areas) Act, 1996 (PESA), and Article 243ZD of Part IX-A relating to District Planning Committees.

Although the Panchayats have historically been an integral part of rural life in India, these Acts have institutionalised the Panchayati Raj Institutions (PRIs) at the village, intermediate, and district levels as the third tier of government. The aim has been to combine social justice with effective local governance, with an emphasis on reservation of seats for the deprived classes of population, including of the leadership positions. With political empowerment having been established through a system of regular election to the three tiers of the Panchayats in all the States except Jharkhand, the task at hand has been to accelerate, widen, and deepen the process of empowerment so that these institutions of self government' become the 'principal authorities' for planning and implementation.

Article 234G read with the eleventh Schedule of the Constitution stipulates that States may, by law, endow the Panchayats with such powers and authority as may be required to enable the latter to function as institutions of self-government. Such laws may also provide for the devolution of powers and responsibilities upon Panchayats for preparation of plans for economic development and social justice and implementation of the schemes for economic development and social justice as may be entrusted to them, including those in relation to the 29 matters listed in the Eleventh Schedule as illustrative of being devolved to Panchayats.

MoPR has schemes such as the Backward Regions Grant Fund (BRGF), Rashtriya Gram Swaraj Yojana (RGSY), Panchayat Empowerment and Accountability Incentive Scheme (PEAIS), Rural Business Hubs (RBHs), and Gender Empowerment through Panchayats.

Backward Regions Grant Fund Programme

The Backward Regions Grant Fund (BRGF) programme, launched at Barpeta in Assam on 19 February 2007, Signifies a new approach to addressing persistent regional imbalances in development. The programme subsumes the Rashtriya Sam Vikas Yojana (RSVY), a scheme earlier being administered by the Planning Commission. The BRGF programme covers 250 districts in 27 States (i.e. except for Goa). of which 232 districts fall under the purview of Parts IX and IX-A of the Constitution, dealing with the Panchayats and the Municipalities respectively. The remaining 18 districts are covered by other local government structures, such as Autonomous District and Regional Councils under the Sixth Schedule of the Constitution, and State specific arrangements as in the case of Nagaland and the hill areas of Manipur.

The BRGF programme represents a major shift in approach from top-down plans to participative plans prepared from the grass-roots level upwards. Panchayats at the Village, Intermediate, and District levels of Municipalities, constituted under

Parts IX and IX-A of the Constitution, are positioned as institutions for planning and implementing the programme. The conviction that drives this new locally driven approach is that grass-roots level democratic institutions know best the dimensions of backwardness in their areas and are, therefore, best placed to undertake individually small, but significant, local interventions to sustainably tackle the problem of backwardness. The guidelines of the programme entrust the central role in planning and implementation of the programme to Panchayats, Municipalities, and the District Planning Committees (DPCs). Special provisions have been made in the guidelines for those districts in Assam, Jammu and Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura that do not have Panchayats, where village level bodies and institutions mandated under other frameworks such as the Sixth Schedule are to plan and implement the programme.

There are three features of the BRGF programme that make it truly unique among Central initiatives to combat backwardness. First, the approach of putting the Panchayats and the Municipalities at the centre stage of tackling chronic regional backwardness is one that has never been tried at this large scale, apart from the implementation of the National Rural Employment Guarantee Act (NREGA), Second, no Central funding stream is as 'untied' as the BRGF—the funds can be applied to any preference of the Panchayat/Municipality, so long as the funds are used to fill a development gap and the identification of the work is decided with peoples' participation. Third, no other programme spends as much funds—nearly 11 per cent of the total allocation—for capacity building and staff provisioning.

Rashtriya Gram Swaraj Yojana

The Rashtriya Gram Swaraj Yojana is a Centrally Sponsored Scheme being implemented by the MoPR in the non-BRGF districts. The Scheme focuses primarily on providing financial assistance to the States/UTs for Training and Capacity building of elected representatives (ERs) and functionaries of Panchayati Raj Institutions (PRIs) so that they can perform the functions devolved upon them and the schemes entrusted to them effectively. Assistance is also provided for Satellite based training infrastructure for Distance learning for the ERs and Functionaries of the PRIs and, in respect of the Hill States and States in the North Eastern Region, for capital expenditure on establishment of Panchayat Resource Centres/Panchayat Bhawans at Block/Gram Panchayat Levels. There is a small component of Infrastructure Development under which assistance is provided for Panchayat Ghar /Training Infrastructure in non-NE States also.

Funding pattern

The funding of the programme is being shared by Central and State Governments is as under:-

- (a) The scheme is demand driven in nature and the funding pattern of the scheme has been 75 per cent by the Central Government and 25 per cent by the States Governments.
- (b) The assistance to Non-Governmental Organisations is 100 per cent. Such NGO proposals should have the recommendations of the State Government concerned.
- (c) Ordinarily, Central assistance for capital expenditure would not be considered under the scheme. States under the North Eastern region or hilly regions are given exception.

- (d) Proposals for setting up infrastructure for satellite based training are also eligible for funding to the States on 75 per cent cost fund basis.
- (e) Each individual proposal would be considered in the light of standard norms which are enumerated in the Scheme Guidelines.

Financial Targets And Achievements (Including for NE Region)

The financial targets and achievements are given as under:

Allocation and utilisation of funds under RGSY

(₹ in crore)

Year	BE	RE	Utilization
2006-07	50.50*	53.95#	52.00
2007-08	49.00	45.92	46.54
2008-09	36.50	48.35	48.35
2009-10	45.00	44.23	44.23
2010-11	50.00	-	-
Total	231.00	191.45	191.12

* This included the components of Training and Capacity Building (30.cr.) Research Studies (2 cr.) Infrastructure Development (10.50 cr.) and Information Technology (8.cr).

While the allocation for Training and Capacity Building was reduced to 24.95 cr. The entire allocation for NE region of ₹ 7.5 cr. was re-appropriated for spending under RGSY.

Mission Mode on E-PRI

E-Panchayat is identified as one of the Mission Mode Projects (MMPs) under NeGP. It proposes to provide a whole range of IT related services such as Decentralized Database and Planning, PRI Budgeting and Accounting, Implementation and monitoring of Central and State sector schemes, Citizen-centric Services, Unique codes to Panchayats and Individuals, Essential GIS based applications, on-line self-learning medium for elected representatives and official functionaries.

It is proposed to be implemented in PPP mode and in synergy with CSCs wherever these exist. Since procurement and maintenance of assets, sanction and recruitment of manpower and efficiency of services (which would increase with time) in the public domain are complex and time taking, a service procurement model is being proposed. Panchayats being the basic unit for planning and implementation of a large number of schemes, this MMP would, go a long way in improving public service delivery.

The scheme envisages providing computing facilities along with connectivity to more than 2,40,000 Panchayats at all the three levels in the country. The following software applications have been proposed to be developed centrally, for e-Panchayat :

- (i) National Panchayat Directory-Unique Code to Panchayats:
- (ii) Panchayat Accounting
- (iii) Panchayat Services-Citizen Centric Services

- (iv) Social Audit
- (v) National Panchayat Portal
- (vi) Planning and Budgeting by Panchayats
- (vii) Implementation and Monitoring of Schemes
- (viii) Panchayat Profiler
- (ix) Grievance Redressal
- (x) Panchayat assets Directory
- (xii) GIS mapping

Rural Business HUBS

With a rapidly growing economy, India is now an emerging economic power in the global arena. However, there is a felt need to spread the benefits of the rapid economic growth to all corners of the country and sections of the society. Panchayats, the grass-roots democratic institutions, hold the constitutional mandate to promote social and economic development in rural areas. RBH is a participatory development model for the rural areas of the country that is built on the platform of 4P i.e. Public Private Panchayat Partnership.

The idea of setting up Rural Business Hubs (RBHs) in partnership with the Panchayats stemmed from the Prime Minister's inaugural address to the Conference of Chief Ministers in June 2004, where he stressed the importance of decentralized economic development in rural areas. This concept draws from Dina's experience of Township and Village Enterprises and Thailand's DTOP (One Tambon One Product) programme that add value to agricultural and other rural produce and rural skills.

The objective of the Schemes is to pilot RBH in selected districts, small scalable projects manageable in Panchayats which are based on rural resources/skills. The area covered under this Scheme are all districts under the BRGF Schemes. However, focus districts selected in consultation with State government, are preferred. The financial assistance under this Scheme is available under the following components:

District Level Workshops for appreciating the concept, identifying schemes and institution for convergence, preparation of action plan and time lines etc. Eligible amount; upto ₹ 60,000/- per district.

- Sub-District Level Workshop - up to ₹ 15,000/-
- Professional Facilitators: Panchayats can engage Professionals for identifying potential business activities, securing convergence and nurturing the RBH through the formative stage Phase-1: for six months.
- Phase II : up to twelve months, Eligible amount @ ₹ 50,000/- per month
- Bridging critical gaps in skill/infrastructure, Assistance is for filling small but critical gaps like common facility centres, pooling centres, minor equipment and connectivity. Also covers skill training, trainign equipment; training material, stipend for trainees etc. Eligible amount: upto ₹ 25.00 lakh

Role of Panchayati Raj Institutions

Panchayats can play several roles in promoting Rural Business Hubs and economic development through them. They can identify skills and endowments of people as well as natural resources in the Panchayat area. They could jointly organise awareness programmes to bring together the business interest and the community to a common

platform and thereby facilitate acceptance of the business plan by local stakeholders. As the local planning body, Panchayats can integrate the economic development plan emerging from the RBH initiative into the overall decentralised planning process at the local level. They can dovetail and converge government schemes and other initiatives with the RBH approach wherever relevant. Substantial amount of united funds made available to them could be used for filling critical gaps. They can provide infrastructure support to enterprises and demonstrate continued community support through joint programs and partnerships. Most important, to ensure that the RBH initiative achieves the results intended. Panchayats could evaluate impact of the initiative in terms of what it has achieved for the community by way of better livelihood opportunities, better and more sustainable use of local resources and better incomes.

Central and State Finance Commission

The Central Finance Commission is appointed by the President every five years or earlier under Article 280 of the Constitution of India. After the passing of the 73rd and 74th amendment, the Commission is required to give recommendations to the President regarding:-

- (i) the distribution between the Union and the States of the net proceeds of taxes which are to be, or may be, divided between them and the allocation between the States of the respective shares of such proceeds;
- (ii) the principles which should govern the grants-in-aid of the revenues of the States out of the Consolidated Fund of India;
- (iii) the measures needed to augment the Consolidated Fund of a State to supplement the resources of the Panchayats in the State on the basis of the recommendations made by the Finance Commission of the State;
- (iv) the measures needed to augment the Consolidated Fund of a State to supplement the resources of the Municipalities in the State on the basis of the recommendations made by the Finance Commission of the State; any other matter referred to the Commission by the President in the interests of sound finance.

The Twelfth Finance Commission (12th FC) had recommended that a sum of ₹ 20,000 crore made available as grants to State governments during the period 2005-10 to augment the Consolidated Fund at State levels to facilitate supplementing of the financial resources placed at the disposal of the Panchayats.

The 12th FC recommended that the grants for PRIs be used to improve service delivery in respect of water supply and sanitation schemes subject to their recovering at least 50 per cent of the recurring cost in the form of user charges. 12th FC had highlighted the importance of building databases and maintenance of accounts by local bodies and urged that part of their support be earmarked by the State Governments for this purpose. 12th FC also made number of recommendations with regard to the constitution, composition, more and methodology of working of State Finance Commissions (SFCs) aimed at improving their functioning.

Local bodies grants are being released in two equal installments in July and January every year. States were required to transfer the grants released by the Central Government to the PRIs within 15 days of the same being credited to the State's Account.

As per the latest position, out of ₹ 20,000 crore recommended by the Twelfth Finance Commission, the actual releases has been around ₹ 18,294.08 crore as on 28th February, 2010. The State who have availed all the 10 installments are Andhra Pradesh,

Rajasthan, Orissa, Manipur, Maharashtra, Karnataka, Haryana, Gujarat, Bihar, Tamil Nadu, Uttar Pradesh and West Bengal, States who have availed 9 instalments are, Chhattisgarh, Himachal Pradesh, Madhya Pradesh, Nagaland, and Sikkim.

Urbanisation is a major ingredient of economic development and progress, urbanisation is inevitable in India and it is likely to have 50 per cent of its population living in cities and towns in the next few decades, up from the present levels of 28 per cent. The salient aspects of urbanisation in India in recent decades are the trend of concentration of urban population in large cities and agglomeration is getting stronger; and large variations patterns of urbanisation in various states and cities. Over the last two decades, particularly in the background of liberalisation of the economy, India has made significant strides in economic growth; a large part of it has been through the contribution of urban areas. Cities offer distinct advantages of economies of scale, scope and agglomeration and returns to sharing of infrastructure and public services. The rising economic importance of cities is evident from their contribution to the nation's Gross Domestic Product (GDP), which is reportedly more than 50 per cent.

Given the strategic importance of cities, provision of civic infrastructure and service delivery have assumed critical importance socially, economically and politically. Urban Local Bodies directly influence the welfare of the people by providing civic, social and economic infrastructure services and facilities in urban areas. Given their strategic position in delivering services in the hierarchy of government set up, following the 7th Constitutional Amendment Act, more functions, powers and resources have been provided to them. However, over a period of time, the functions and responsibilities of ULBs have increased considerably and the challenges have become greater at all levels of government. Significant efforts are being made to upgrade the urban infrastructure and ULBs are being assisted to equip themselves with skills in planning and executing projects for better service delivery. Reforms related to introduction of accrual-based double entry system of accounting, e-governance, property tax reforms, levy of reasonable user charge, etc, are being adopted by ULBs/ States.

13th Central Finance Commission Recommendations

Recognizing the paramount importance of boosting the finances of ULBs and to bridge the gap between requirement of funds by the ULBs and available financial resources, the Ministry of Urban Development impressed upon the 13th CFC Commission to play the role of a path breaker in creating an enabling environment for fiscal decentralisation at the sub-state level, replace the system of adhoc grants with regular transfers and compensate the third tier on the basis of a realistic assessment of the costs involved. The 10th, 11th and 12th Central Finance Commissions had recommended adhoc grants of ₹ 1000, ₹ 2000 and ₹ 5000 crores respectively.

Taking cognizance of the situation, the 13th Central Finance Commission has emphasized the need to bolster the finances of local bodies and suggested that local bodies need to be supported through a predictable and buoyant source of revenue substantially higher than the present levels in addition to their own tax revenues and other flows from State and Central Governments. The various recommendations made by the 13th Central Finance Commission seek to provide quantum leap in the grants to the local bodies based on certain conditions which would ensure the adoption of best practices by local bodies and bringing of the much needed reforms to these institutions.

The 13th Central Finance Commission has recommended total grants-in-aid of ₹ 23473 crores for period 2010-15 for ULBs which comes to ₹ 4694.51 crores per annum.

Further, with the objective of encouraging reforms and fast track planned development of cities with focus on efficiency of urban infrastructure and service delivery mechanisms as well as community participation, accountability of ULBs/ Parastatal agencies towards citizens etc and also as a means to enhance transparency, the 13th CFC has recommended 'performance based grants'. The performance based grants can be availed by States subject to adoption of various reforms like accounting standards prescribed in the National Municipal Accounts Manual (NMAM) by their local bodies, strengthen their local funds audit departments through capacity building, incentivise revenue collection by local bodies, set up ombudsman and property tax boards etc. The Ministry of urban Development is undertaking initiatives assist states in this regard to enable them to avail 'Performance Based Grants'.

Capacity Building

Strengthening urban local governments through capacity building and better financial management is identified as a key strategy for urban development in the 11th Plan. The plan identifies lack of skilled man power as one of the key concerns and recommends setting up of an apex agency to coordinate the activities of national and state level training institutions. Administrative Reforms Commission has also recommended capacity building programmes in order to address capacity gaps in urban local bodies. The capacity of the local urban bodies in India varies widely across States and cities. The two main issues which require focussed attention are : (i) Lack of personnel with appropriate skill sets; and (ii) Inadequate skill sets of personnel already deployed.

Ministry of Urban Development implemented the Capacity Building for Decentralized Urban Governance (CBDUG) programme in collaboration with the UNDP in 16 urban local bodies in four states. The Capacity Building for Urban Local Bodies Scheme (CBULB) brought out by this Ministry is aimed at strengthening urban local governments through capacity building for better governance and financial management as articulated in the 11th Plan. The scheme covers a wide range of activities with respect to Capacity Building like setting up of Centres of Excellence, addressing specific gaps in Urban Planning, Preparation of City Development Plans, DPRs, Implementation of Property Tax Reforms, e-Governance, Accounting Reforms, socio-economic and environmental planning, project implementation and management, preparation of detailed project reports, municipal service delivery including water supply, sewerage and sanitation, solid waste management, financial management, urban transport, cost recovery and user charges; Implementation of capacity building programme in pursuance of National Urban Sanitation Policy; Implementation of municipal reforms like property tax reforms, accounting reforms, e-Governance, public-private partnership; Training programmes for women elected representatives; etc.

The Ministry of Urban Development has created thirteen Centres of Excellence with the aim to strengthen capacity building measures, awareness, research and training in priority area of Urban Development and Management. The Centres of Excellence will address urban development issues at national, state and local levels and will provide support to state and local government in key areas of urban development. The centres of excellence include Administrative Staff College of India,

Indian Institute of Management-Bengaluru, IIT-Chennai, IIT-Guwahati. IIT Delhi, NIT Warangal etc.)

In Financial Year 2009-10, under the Capacity Building Scheme proposals submitted by various State Governments were approved. Grants were released for proposals submitted by various State Governments related to Accounting Reforms, Development of CDP and tool kit, preparation of DPR and project management, Training of Newly elected women representatives, Elected Representatives, town planning officers, Municipal Engineers etc; Communication campaign for community participation, citizen centric Municipal services and reforms; Comprehensive Revenue Improvement Action Plan and Tax Mapping; and Strategizing of state sanitation programmes etc.

The Ministry of Urban Development is implementing a number of Central and Centrally Sponsored Schemes for assisting the States in meeting the challenge of rapid urbanization. Brief details of the schemes and progress made during the year 2009-10 are given in the succeeding paragraphs.

Jawaharlal Nehru National Urban Renewal Mission (JNNURM)

The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was launched on 3rd December 2005 with the objective of reforms driven and fast track development of cities across the country, with focus on bringing about efficiency in urban infrastructure, service delivery mechanisms, community participation and accountability of Urban Local Bodies and Parastatal agencies towards citizens.

Sixty Five Cities are covered under the Urban Infrastructure and Governance (UIG) component of the JNNURM. These cities have submitted their City Development Plans delineating their long-term vision for development. 63 of the 65 Mission Cities (except Tirupati and Porbandar) have signed Memorandum of Agreement (MCA) with Government of India committing to a time bound agenda of reforms aimed at achieving sustainable urban transformation.

The duration of the Mission is seven years beginning from 2005-06 to 2011-12. During the period, the Mission seeks to ensure sustainable development of select cities.

Mission coverage

The Mission cities/Urban Agglomerations (UAs) that have been taken up under JNNURM as per Census 2001 and as per given norms/criteria are indicated below:-

Category	Norms/Criteria	No. of Cities
A.	Cities/ UAs with 4 million plus population as per 2001 census	07
B	Cities/UAs with 1 million plus but less than 4 million population as per 2001 census	28
C	Selected cities/UAs (State Capitals and other cities/ UAs of religious/Historic and touristic importance)	30
Total		65

Mission Strategy

The Mission Strategy is as follows:

- i) Planned urban perspective frameworks for a period of 20-25 years (with 5 yearly updates) indicating policies, programmes and strategies of meeting fund requirements would be prepared by every identified city. This perspective plan would be followed by preparation of Development Plans integrating land use with services, urban transport and environment management for every five year plan period.
- ii) Cities/Urban Agglomerations/Parastatals will be required to prepare Detailed Project Reports for undertaking projects under identified areas.
- iii) Private Sector Participation in development, management and financing of Urban Infrastructure would be clearly delineated.
- iv) Funds for the identified cities would be released to the designated State Nodal Agency, which in turn would leverage, to the extent feasible, additional resources from the financial institutions/private sector/capital market.
- v) Funds from Central and State Government will flow directly to the nodal agency designated by the State, as grant. The nodal agency will disburse central assistance to ULBs or Parastatal agencies as the case may be, as soft loan or grant-cum-loan or grant.
- vi) A revolving fund will be created to meet the operation and maintenance costs of the assets created under the Mission.

Urban Infrastructure and Governance (UIG)

The main thrust of the sub-mission on Urban Infrastructure and Governance is on major infrastructure projects relating to water supply including sanitation, sewerage, solid waste management, road network, urban transport and redevelopment of inner (old) city areas with a view to upgrading infrastructure therein, shifting industrial/commercial establishments to conforming areas, etc.

The inadmissible components are projects pertaining to the following:-

- (i) Power.
- (ii) Telecom
- (iii) Health
- (iv) Education
- (v) Wage employment programme and staff component

Depending upon population, geographical location of the cities and category to which a city belongs, funds under JNNURM is provided as indicated below:-

- (i) 35 per cent /50 per cent/80 per cent/90 per cent of the cost of projects would be funded by the Government of India through Additional Central Assistance (ACA) and
- (ii) 65 per cent/50 per cent/20 per cent/10 per cent would be funded by State/ULBs/Financial Institutions.
- (iii) The funds would be released in four installments.

* The first instalment shall be released on signing of MoA and approval of City Development Plans (CDPS)/Detailed Project Reports (DPRs).

- * The balance will be released in subsequent instalments dependent upon achievement of reform/ milestones and progress of projects.

National Steering Group

To steer the Mission objectives, a National Steering Group has been constituted under the Chairmanship of Minister of Urban Development with Minister of Housing and Urban Poverty Alleviation as co-Chairperson. The National steering Group may add additional reforms to the identified reforms and may consider addition or deletion of cities/towns under Category-C (other than State Capitals) based on the suggestions received from State Governments. The number of cities under the Mission shall, however, remain around 60.

So far National Steering Group has held six meetings. The sixth meeting was held on 24 November, 2009.

Urban Reforms

The main thrust of the strategy of urban renewal is to ensure improvement in urban governance so that Urban Local Bodies (ULBs) become financially sound and the assets created are maintained properly. To achieve this objective, State Governments and Urban Local Bodies are required to accept implementation of an agenda of reforms. The proposed reforms broadly fall into two categories:-

- (i) Mandatory Reforms
- (ii) Optional Reforms

All the mandatory and optional reforms are to be implemented by the State/ ULB/Parastatals within the mission period.

Capacity Development Initiatives

Building the capacity of municipal staff and elected representatives as well as the State level nodal agency to effectively implement radical urban reforms and infrastructure projects is recognised as an urban imperative. In this direction a number of initiatives have been undertaken.

a) Rapid Training Programme (RTP)

Capacity building of city level elected representatives and staff of ULBs/ parastatal organizations in the mission cities is recognized as a priority to take on the task of implementing projects and reforms under the Mission. As a part of this, the Mission Directorate undertook a Rapid Training Program (RTP) on three prioritized Modules namely Governance and Reforms, Supervision of Preparation of DPRs, and Project Implementation and Management. Six national level institutions were engaged to conduct these trainings at the cities. A total 96 training programs have been conducted in various cities. About 1800 ULB and parastatal staff, and over 2000 elected representatives from Mission cities participated in the RTP.

The Next phase of capacity building proposes to support engagement of regional institutions for delivering training to Urban Local bodies based on the needs assessment.

b) Programme Management Unit (PMU)

To strengthen the capacity of the State Level Nodal Agencies, to effectively coordinate implementation of projects and reforms under Jawaharlal Nehru National Urban Renewal Mission, the Mission Directorate is supporting establishment of Programme Management Unit (PMU) at the state level.

The financial support for establishing PMUs was initiated in June 2007, Based on proposals sent by the states the Mission Directorate has approved 19 PMUs of which 9 states have established and operationalized the PMUs.

c) Project Implementation Unit (PIU)

The Mission Directorate has approved 47 PIUs of which 30 PIUs have been established and operationalized by the ULBs.

d) Development and Dissemination of Toolkits

Toolkits relating to the following have been prepared disseminated to ULBs, State Governments, State Nodal Agencies :-

- (i) Preparation of Detailed Project Reports (DPRs)
- (ii) Development of Heritage Areas
- (iii) Community Participation Fund (CPF)
- (iv) Reimbursement of cost of preparation of CDP and DPR.
- (v) Appointment of Independent Review and Monitoring Agencies for projects.
- (vi) Programme Management Units (PMUs)
- (vii) Project Implementation Units (PIUs)
- (viii) National Mission Mode Project on e-Governance in Municipalities
- (ix) Revised Toolkit on preparation of City Development Plans

These toolkits facilitate the States/ULBs in submission of projects and other proposals under the Mission Programme.

e) Peer Experience and Reflective Learning (PEARL)

The "Peer Experience and Reflective Learning" (PEARL) programme was launched to foster cross learning and knowledge sharing through, networking between the Mission cities. To achieve this objective, the Mission supported formation of groups/networks amongst JNNURM cities having similar socio-economic profile and urban issues, along with natural affinity to peer pair. The National Institute of Urban Affairs (NIUA) has been appointed as the National Coordinator for the PEARL program for coordinating the overall functioning of the networks, with an appreciation of the independent self driven nature of the networks, and assisting the Mission Directorate in supporting and monitoring the programme.

Under the programme, network of heritage cities have organized knowledge sharing workshops. A website has been made operational providing tools to support networking and knowledge sharing. NIUA has brought out three newsletter called "Pearl Update".

A workshop on heritage was held in Madurai on 2.2.2009 in collaboration with CEPT, Ahmedabad. Two volume of Best Practices on Project implementation and Urban Reforms has been distributed and a National Workshop held in Hyderabad on November 6, 2009. The PEARL update has also been issued in Hindi in August, 2009.

f) Credit Rating of JNNURM ULBs

JNNURM has undertaken an exercise for assessment of finances and credit worthiness of the Mission ULBs, through process of credit rating. This is intended to trigger the process of leveraging debt for JNNURM projects and to provide a platform for the

ULBs and financial institutions to engage on issues related to project financing. Presently, 59 ULBs in the Mission cities have been assigned final ratings and made public. Four workshops have been conducted for dissemination of ratings and bringing the ULBs in contact with the Banks/financial institutions.

The surveillance rating has been initiated in Feb, 2009. The surveillance ratings could include, but will not be restricted to major developments since last rating and rationale for reaffirming/ changing the ratings.

g) National Mission Mode Project on e-Governance in Municipalities

A Mission Mode Project on e-Governance in municipalities has been prepared by the Ministry to make urban governance more efficient and effective. Since local Government is the first interface between citizens and government this initiative would solve a number of problems that the people in towns and cities are facing due to rapid urbanization. It would assist improved service delivery, decentralization, better information management and transparency, citizen's involvement in government, improved interaction between local governments and its citizens as well as other interest groups like NGOs, CBOs, RWAs, etc. It has been decided that initially the scheme would be a part of Jawaharlal Nehru National Urban Renewal Mission (JNNURM) for 35 cities with population of over 10 lakh and a new Centrally Sponsored Scheme (CSS) for other cities with population of over 10 lakh and a new Centrally Sponsored Scheme (CSS) for other cities and towns would be taken up after watching the implementation under JNNURM. Accordingly, the guidelines on NMMP on e-Governance in municipalities has been prepared and circulated to the States/ULBs for submission, of DPRs. Six projects on E-governance in Municipalities have since been approved for the city of Vijayawada, Nagpur, Kochi, Pune, Navi Mumbai and Ulhasnagar.

Monitoring of the Projects and Reforms

Monitoring of the projects for timely completion and for achieving the reforms committed as per the MOA is being done by the Central Sanctioning and Monitoring Committee regularly during its meeting for the consideration of the projects for approval for funding under JNNURM. The representatives of the State/SLNAs are impressed upon for meeting the time-line for completion of the project as well as achieving the target of reforms as per commitment made in the MOA. In addition periodic Regional Review Meetings are held wherein the progress made by the concerned States are reviewed. Besides, progress of projects as well as reforms are also monitored through the quarterly Progress Report (QPR) submitted by the States. The progress of implementation of projects and reforms was also reviewed by the Urban Development Minister (UDM) and Secretary (UD) in the Annual meeting with the Secretaries/Principal Secretaries (Urban Development) of the States on 19 August 2009.

Programme Management and Evaluation System (PMES).

PMES has been developed as a comprehensive web-enabled Management Information system (MIS) which will serve to cover all the critical aspects of programme implementation. An initial round of intensive hands-on training for city as well as State level officials has been conducted to ensure effective use of the application. PMES is live for all States.

Independent Review and Monitoring Agency (IRMA)

IRMA are agencies to be appointed by the States for monitoring of the progress of

implementation of the projects sanctioned under the JNNURM so that the funds released are utilized in a purposeful and time-bound manner. The proposals of Kerala, Rajasthan, Madhya Pradesh, Uttarakhand, Maharashtra, West Bengal, Puducherry, Andhra Pradesh, Gujarat, Assam, Tamil Nadu, Uttar Pradesh and Karnataka for appointment of IRMA have been approved by the CSMC.

Further, CSMC has also approved agencies for appointment as IRMAs for the States/UTs of Chandigarh, Jammu and Kashmir, Punjab, Mizoram, Meghalaya, Sikkim, Tripura, Arunachal Pradesh, Manipur, Chhattisgarh, Jharkhand, Orissa, and Goa after initiating steps on behalf of these States thereby making total number of IRMAs approved to 26 out of 31 States/UTs.

IRMAs have been established in Andhra Pradesh, Kerala, Madhya Pradesh, Maharashtra, Gujarat, Uttarakhand, Tamil Nadu, Uttar Pradesh, Karnataka and Rajasthan. The states of Bihar, Delhi, Nagaland, Haryana and Himachal Pradesh are in the process of appointing IRMAs.

Development of Community Partnership

(i) Establishment of City Voluntary Technical Corp (CVTC)

City Volunteer Technical Corps (CVTC's) are voluntary groups of professionally Qualified persons in the sectors of urban planning, urban governance, urban engineering, legal and financial services and urban poverty. Their setting up was being facilitated by the National Technical Advisory Group (NTAG) on request of the ULB.

In the Hon'ble President's Address to the Joint Session of Parliament in June 2009, facilitating of a voluntary Technical corps of professionals in urban areas through JNNURM to support city development activities was included in the 100 days agenda of the Ministry.

Accordingly, the Ministry has issued the guidelines to facilitate the formation of CVTC's through professionals in all Mission cities in the 7 areas of urban engineering, urban planning, urban poverty, urban governance, urban environment, urban heritage and Financial Services.

CVTC's expected role in the overall scheme of JNNURM includes:-

- a. Advise to city governance and management team on enlisting community participation in service delivery.
- b. Building poverty reduction programmes.
- c. Ensuring transparency and accountability to citizens in programme implementation of JNNURM;
- d. Help enlist involvement of citizens at grassroots level through Ward Committees, Area Sabhas, etc.

(ii) Community Participation Fund

A Community Participation Fund (CPF) has been established in 4.6.2007 by the Mission Directorate with the initial corpus of ₹ 100 crore with the provision of ₹ 90 crore for funding the projects during the remaining years of mission period. So far 43 proposals under CPF has been approved.

PUBLIC PRIVATE PARTNERSHIP (PPP)

The Mission Cities have agreed to include promotion of PPP through appropriate policies and projects as a part of the reform agenda. A number of States such as West

Bengal, Maharashtra, Kerala and Gujarat have adopted PPP policy. PPP cell has also been established by Assam and West Bengal for promotion of PPP for infrastructure projects in their States. PPP initiatives have been taken by Indore, Vadodara, Pune and Ahmedabad for establishment City Bus Services. While sanctioning projects, efforts are made to ensure public private partnership in areas where it is feasible.

Progress under (UIG) since Inception

The overall allocation provided under the UIG of JNNURM is ₹ 31,500 crore. Out of this total allocation, as on 31 May 2010, 525 projects have been sanctioned for various admissible sectors with approved cost of ₹ 59624.05 crore with ACA commitment of ₹ 29824.50 crore inclusive of financing of buses approved under JNNURM. About 95% allocation has been committed. As amount of ₹ 12444.21 crore has been released so far on account of sanctioned projects and for financing for procurement of buses sanctioned under UIG and also reimbursement of the cost of preparation of DPR, CDP etc. So far 76 projects have been reported physically completed (30 projects on Roads/Flyovers, 23 projects on Water Supply, 10 projects on Sewerage, 5 projects on Drainage, 2 projects each on MRTS, SWM and Urban Renewal and 1 projects each on other Urban Transport & Heritage Sector) under UIG of JNNURM.

Urban Infrastructure Development Scheme for Small and Medium Towns Scheme (UIDSSMT)

Urban Infrastructure Development Scheme for Small and Medium Towns Scheme (UIDSSMT), one of the sub-components of JNNURM was launched in December, 2005 by subsuming the erstwhile Scheme of Integrated Development of Small and Medium Towns (IDSMT) and Accelerated Urban Water Supply Programme (AUWSP). The Objectives of the Scheme are to :

- a) Improve Infrastructure facilities and help create durable public assets and quality oriented services in cities and towns.
- b) Enhance public-private partnership in infrastructural development and
- c) Promote planned integrated development of towns/cities.

The Schemes is for seven year duration beginning from 2005-06. All cities/towns as per 2001 census excepting cities/towns covered under Jawaharlal Nehru National Urban. Renewal Mission (JNNURM), are eligible to be covered under the Scheme. The components for assistance under the Scheme include all urban infrastructure development projects including water supply and sanitation.

The overall allocation provided under the UIDSSMT Scheme so far is 11400.00 crore. Again set this as on 31 May 2010. an amount of 10423.00 crore

Out of total projects approved, water supply scheme account for 63 per cent followed by sewerage 20 per cent. roads 08 per cent, storm water drains 07 per cent. solid waste management and others 2 per cent.

As required under the Scheme, all the states which have availed ACA have signed Memorandum of Agreements (MoAs) with Government of India for carrying out Urban Sector Reforms at State / parastatal / ULB levels. As reported by the State Governments, implementation of Reform Agenda is at various stages within the agreed timeline.

The overall allocation provided under the UIDSSMT Scheme so far is ₹ 11400.00 crores. Against this as on 31.05.2010 an amount of ₹ 10423.00 crore has been committed covering 763 projects in 640 towns across 27. States and 03 UTs. Of the committed

funds, as on 31.05.2010 an amount of ₹ 6946.90 crore has been released to States/UTs. 114 projects out of the 763 projects approved so far (56 Water Supply, 49 Roads, 08 Storm Water Drains and 01 preservation of Water Body have been completed.

National Urban Information System (NUIS)

The National Urban Information System (NUIS) Scheme has been launched during the Tenth Five Year Plan (March 2006) to develop GIS databases for 137 towns/cities in the country in two Scales i.e., 1:10000 and 1:2000. In addition utility mapping on 1:1000 Scale will also be undertaken for 24 towns. The total number of Towns under NUIS Scheme is 152. The NUIS comprises two major subcomponents viz. (a) Urban Spatial Information system Scheme (USIS). i.e., generation of digital maps through satellite/aerial survey, to meet spatial (mps/images) data/information requirements of urban planning for routine functions and (b) National Urban Databank and Indicators (NUDBandI) to develop town level urban database to support development of indices.

Scheme for Urban Infrastructure in Satellite Town around seven mega cities.

Ministry of Urban Development has formulated a Scheme for Urban Infrastructure in Satellite Town around seven mega cities. The objectives of this scheme are as under:-

- i) To develop urban infrastructure facilities such as drinking water, sewerage, drainage and solid waste management etc at satellite towns/counter magnets around the seven mega-cities and to channelize their future growth so as to reduce pressure on the mega cities;
- ii) To implement reforms such as E-Governance, property tax, double entry accounting, creation of barrier free environment, structural safety norms in compliance with the National Building Code, water and energy audit of water and waste-water utilities and implementation of service level benchmarks;
- iii) Strengthening implementation of reforms such as levy of reasonable user charges, ear marking of budgets for basic services and at least 10-15 per cent of housing sites for the urban poor, formulation of bye-laws to incorporate provisions for disaster management, water forvesting and range and recycle of waste water and implementation of Public Private partnership (PPP) projects. To promote the following Urban Local Bodies (ULB) level reforms:
 - Adoption of a modern, accrual based, double entry system of accounting;
 - Introduction of a system of e-governance using IT applications, Geographical Information Systems (GIS) and Management Information systems (MIS) for various urban services and establishment of citizens facilitation centres;
 - Reform of property tax with Geographical Information System (GIS) and arrangements for its effective implementation so as to raise collection efficiency to 85 per cent;
 - Levy of reasonable user charges, with the objective that full cost of operation and maintenance is collected within seven years;
 - Internal earmarking of budgets for basic services to the urban poor; earmarking of house sites for the urban poor;
 - Formulating bye laws which shall incorporate provisions for disaster

management, rainwater harvesting, reuse and recycle of waste water, barrier free environment and structural safety and shall also be in strict compliance with the National Building code:

- Implementation of Public Disclosure law;
- Implementation of Community Participation Law.

Selection of Satellite town is linked to implementation of Urban reforms. In the first phase seven metropolitan cities are to be covered and the central assistance will be admissible for Water Supply and Sanitation, Sewerage and Solid Waste Management and Capacity building assistance for implementation of reform identified under the scheme.

Lump Sum Provision for the Projects/ Schemes for the benefit of North Eastern Region including Sikkim.

The Scheme of 10 per cent Lumpsum Provision Scheme for the benefit of North Eastern Region including Sikkim became operational in the Ministry of Urban Development from the financial year 2001-02; It is now, under implementation as per guidelines of Non-Lapsable Central Pool of Resources (NLCPR) and instructions issued by the Ministry of Urban Development.

Objective of the Scheme.

- (a) to ensure speedy development of infrastructure in the North Eastern Region and Sikkim.
- (b) To increase flow of budgetary financing for specific critical infrastructure projects/ schemes in the region.
- (c) To take up appropriate projects to reduce the gaps in basic minimum services and infrastructure in the States of North Eastern Region and Sikkim.

Broadly the Scheme cover the following projects:-

- Improvement of existing/ construction of new roads, pavements.
- Improvement of existing drains/ construction of new drains.
- Sewerage scheme.
- Solid waste Management Scheme
- Construction of Bridges/ Flyovers
- Construction of market Complex/ parking complexes.
- Civic amenities like playground/ community halls, night shelters, old age and destitute children home

Ten per cent of the Annual Plan Budget of the Ministry is earmarked for implementation of Projects/ Schemes for the North-Eastern States including Sikkim.

So far this Ministry has approved a total of 229 projects in the North Eastern Region including Sikkim at an estimated cost of ₹ 1893.79 cores of which the Government of India share is ₹1807.79 crore and ₹ 1233.31 crore has been released by this Ministry. Of these 95 projects have been completed as reported by the States.

Urban Transport

Increasing urban population coupled with increased city size has led to a rapid growth in the urban travel demand. Rapid growth in the use of personal motor vehicle alongwith neglect of public transport, pedestraianisation and non-motorized

modes has resulted in increased congestion, air pollution, higher incidence of accidents as well as an increasing consumption of petroleum products. Significant improvement in public transport pedestrianisation and non-motorized modes are a critical requirement for improving mobility in urban areas and thereby facilitating economic growth. Such improved mobility would also have a beneficial impact on the urban poor by improving their access to employment, education and health care. For urban planning it is necessary to give attention to an appropriate policy for integration of transportation and traffic plans with land use plans for every urban agglomeration.

A national Urban Transport Policy has been formulated by the Central Government. The focus of the policy is to "Move People Not Vehicles." This policy envisages integrated land use and transport planning, significant improvements in public transport, encouragement of non-motorised modes of travel, provision of adequate parking spaces as also a comprehensive set of measures for capacity building in urban transport planning.

While the major Metro Rail projects under implementation at present are the Delhi, Bengaluru, Chennai, Mumbai, Hyderabad and Kolkata (East-West Metro Corridor). Other such Metro Projects are being considered for other cities.

The Delhi MRTS is being funded through equity contribution towards capital investment and subordinate debt for land acquisition and payment of Central taxes from the Government of India and the Government of National Capital Territory (NCT) of Delhi in equal proportion, as well as soft loan assistance from Japan International Corporation Agency (JAICA). The funds from JICA are being made available as pass through assistance. Besides these, grants is being provided by the Government of Haryana and Uttar Pradesh and Government of India in 80:20 ratio of the capital works of extension of Delhi Metro to Gurgaon and Noida. Phase-I of Delhi MRTS of length 65.10 has been completed. Phase-II of Delhi MRTS, including extension to Gurgaon, Noida, Central Secretariat to Badarpur and Airport Express Link from New Delhi Railway Station to Indira Gandhi International (IGI) Airport-Dwarka Sector-21 are under active implementation and targeted for completion before Commonwealth Game, 2010. The projects on completion would provide a total Metro network of 189.29 km.

Bengaluru Metro Rail Project, Kolkata Metro Rail Project and Chennai Metro Rail Project are also being implemented on the pattern of Delhi Metro Rail Project. The construction as well as operation and maintenance of the system in these Metros is also through joint venture companies-Special Purpose Vehicles (SPVs) with equity participation of GOI and State Government on 50:50 basis.

Since buses continue to be the major form of public transport, all the State Governments and Cities are being encouraged to launch Modern ITS enables City Bus Service on Public Private Partnership mode and of such a quality that can be marketed to public as a "Branded Product". Modern City Bus Service has been launched/contemplated at Bhopal, Jabalpur, Udaypur, Jullandhar, Ludhiana and Jaipur cities. In addition, in view of the cost effectiveness feasibility and scalability, many cities have opted for Bus Rapid Transit System which is under implementation in Delhi, Ahmedabad, Surat, Rajkot, Indore, Bhopal, Pune, Pimpri-Chinchwad, Jaipur, Vijayawada and Vishakhapatnam. The BRT System for 18 kms. has been successfully implemented at Ahmedabad under the name and style, "Janmarg". The BRTS is conforming to international standards. The system has focused on all traffic,

vehicle and users related aspects. It has received prestigious international Sustainable Transport Award 2010 during TRB Conference in U.S.A. Also, this project was given National Award for best mass transit project in India in 2009 during Urban Mobility India Conference on 3rd December 2009.

Further, under the 2nd stimulation package, as a one time measure, a scheme has been launched for providing Central Financial Assistance (ACA) in the form of grant to States/UTs/ULBs/Parastatals for procurement of buses for their urban transport system under JNNURM. The financing is meant exclusively for City Bus Service and Bus Rapid Transit System (BRTS) for all Mission cities. Ministry of Urban Development have sanctioned 15260 buses under the scheme for 61 mission cities with a total cost of around ₹ 4723 crore out of which ACA admissible is approximately ₹ 2092 crore. The sanctioning of the buses has been tied with certain conditions including those related to various reforms in Urban Transport, namely setting up of Unified Metropolitan Transport Authority (UMTA), mechanism to enforce parking policy, advertisement policy which taps advertisement revenue on public transport, dedicated public transport fund, setting up of Control-cum-Information Centre with toll free number, prioritization of buses with demarcated/dedicated lanes, setting up of City specific SPV for city bus service operations, waiver/reimbursement of State/ULB taxes on buses etc.

Till March, 2010 delivery of more than 5700 modern ITS enabled buses have been received by the States/Cities. All the buses sanctioned under the scheme will conform to the Urban Bus Specifications framed by the Ministry of Urban Development.

25 Scientific and Technological Developments

INDIA has a long and distinguished tradition in science and technology from the ancient times. The great achievements during the last century, the latter half prior to independence, have been related largely to pure research. At the time of independence, our scientific and technological infrastructure was neither strong nor organised as compared to the developed world. This had resulted in our being technologically dependent on the skills and expertise available in other countries. In the past four decades, an infrastructure and capability largely commensurate with meeting national needs has been created minimising our dependence on other countries. A range of industries, from small to the most sophisticated, has been established covering a wide range of utilities, services and goods. There is now a reservoir of expertise well acquainted with the most modern advances in basic and applied areas that is equipped to make choices between available technologies, to absorb readily new technologies and provide a framework for future national development.

Science and Technology Infrastructure

Scientific and technological activities in India are carried out under a wide set-up consisting of Central Government, State governments, higher educational sector, public and private sector industry and non-profit institutions/associations. These institutional structures, with their research laboratories, are the main contributors to research and development being carried out in the country. Notable among these are the Council of Scientific and Industrial Research (CSIR); Indian Council of Agricultural Research (ICAR); and Indian Council of Medical Research (ICMR). In addition, there are many departmental laboratories of various departments/ministries, viz., Department of Atomic Energy, Ministry of Information Technology, Department of Space, Ministry of Earth Sciences, Defence Research and Development Organisation, Ministry of Environment and Forests, Ministry of New and Renewable Energy and the Ministry of Science and Technology. Further, there are over 1,200 in-house research and development units in industrial undertakings supporting research in their respective industries. Many Indian universities and deemed universities such as IITs also undertake substantial research and development work.

New Science & Technology Policy 2003

In order to build a blue print for future programmes of Science & Technology and to give a direction to the initiatives to be undertaken, the government has announced the Science & Technology Policy 2003. The policy outlines the approach to S & T governance, optimal utilization of existing physical and knowledge resources, development of innovative technologies, systems and technologies for mitigation and management of natural hazards, generation and management of intellectual property and creation of awareness amongst general masses about the use and benefits of science & technology.

Programmes of the Department of Science and Technology

The Department of Science and Technology, was set up in May 1971 with the objective of promoting research in the new areas and to play the role of a nodal department for

organising, co-ordinating and promoting science and technology activities in the country. Over the years, the Department has evolved policy statements and guidelines, provided mechanisms for co-ordination in the areas of science and technology in which a number of institutions have interests and capabilities, and supported grants-in-aid to scientific institutions and professional bodies. The Department has played a catalytic and co-ordinating role and in this process over the past few years, the efforts at promoting science and technology in the States and Union Territories have also gathered considerable momentum.

Research and Development Programmes

The Department of Science and Technology has been playing a crucial role in identifying and promoting front-line and priority areas on Research and Development (R&D) in various disciplines of science and engineering. This support is provided through Science and Engineering Research Council (SERC) – an advisory body consisting of eminent scientists and technologists drawn from academic institutions like IITs, universities, national laboratories and industry. The Council through its advisory committees assists the Department not only in peer reviewing the proposals but also identifies newer and inter-disciplinary areas of R&D for concerted efforts. The Council, with the help of the advisory committees, also monitors progress of individual projects sponsored in various disciplines along with monitoring the progress of co-ordinated and concerted efforts. Every year around 1,000 project proposals are received for consideration in the Department, most of which fall in the category of basic sciences and engineering research.

Science and Engineering Research Board (SERB) has been established by the Department in 2010 as an autonomous body for promoting basic research. The Board is expected to play a major role in promotion of extra mural research in the country.

Assessing the importance of the emerging, highly interdisciplinary field of Nano Science & Technology, a mission on Nano Science & Technology (Nano Mission) was launched in 2007. The main objectives of the Nano Mission are basic research promotion, infrastructure development for carrying out front-ranking research, development of nano technologies and their applications, human resource development and international collaboration.

On the occasion of the 50th anniversary of India's Independence, the Government launched *Swarnajayanti Fellowships* for enabling outstanding young scientists to attain world class levels in science. The Fellowships are open to Indian scientists in the age group of 30-40 years, with proven capability for outstanding research work exploring new frontiers in their field of specialisation.

Infrastructure Development

The Department through its various programmes has been playing a catalytic role in supporting the setting-up of new R&D facilities along with the modernisation of the existing ones. 'Intensification of Research in High Priority Areas' - IRHPA has helped in strengthening of the infrastructure and research capabilities in selected areas of science and engineering. Under this programme, units/core groups and National Research Facilities are established around an outstanding scientist to act as a focal point to nucleate research activity in these areas.

Universities are cradles of innovation and research. In order to provide and improve basic infrastructure in academic sector for research and teaching, a scheme, viz. Fund for Improvement of S&T Infrastructure in Universities and Higher

Educational Institutions (FIST) was initiated during the 9th Five Year Plan. Under this programme support is provided for up-gradation laboratories by providing equipment, computer networking, library facilities etc. The programme identifies active university/academic department for support through a peer review mechanism including on-site visits. In appreciation of the R&D contributions of the performing universities, Promotion of University Research and Scientific Excellence (PURSE) programme has been initiated. The PURSE scheme provides substantive research grant to cover manpower-cost, augmentation of equipment, computational facilities etc.

Human Resource Development

The Department also supports different programmes aimed at identifying new talent and provides them with financial assistance in the form of fellowships for pursuing research in front-line areas of science and technology. Also, for the researchers the Department supports training programmes, summer schools and contact programmes. The programmes supported are BOYSCAST fellowships, SERC student fellowships, etc. Fellowships are also awarded to undergraduate students to get first-hand exposure of research in leading research laboratories. To involve young scientists (below 35 years) in national S&T development process and to provide opportunities to them for pursuing exciting and innovative research ideas, an exclusive scheme for Young Scientists is being implemented by the Department.

In order to motivate bright young minds at their secondary school/college levels, and to encourage them to stick on to a career in science, a new scheme called *Kishore Vaigyanik Protsahan Yojana* has been initiated. Talent would be scouted through a competitive mechanism at school level and scholars would be selected for an attractive fellowship/scholarship until they pass their Masters Degree in Science. Further, in order to generate trained manpower in selected areas of science and technology, training courses, summer/winter schools were organised in theoretical chemistry, earth sciences, astronomy and astrophysics, lasers, optics, atomic and molecular physics.

Women Scientists Scheme was launched during the year 2002 by the Department of Science and Technology. The scheme provides support to women scientists, with or without a break in career, to pursue science in all its aspects and encourage them to continue in the scientific profession and also contribute towards application of science and technology to societal development.

Innovation in Science Pursuit for Inspired Research (INSPIRE) programme has been launched to attract talent to the study of science at an early stage and help to build the required critical human resource pool for strengthening and expanding the Science & Technology system and R&D base.

The Department is supporting national level training programmes for the scientists working in S&T sectors in the country.

Technology Development and Related Programmes

The Department of Science and Technology under its scheme on 'Drugs and Pharmaceuticals Research' supports collaborative Research and Development projects jointly submitted by drug companies and the academic national R&D institutes. The programme aims towards the development of new drugs and cleaner process technologies for known drugs/key intermediates for drugs. The programme covers all systems of medicine - Allopathic, Ayurvedic, Homeopathic, *Siddha* and *Unani*. In

addition to this, National Facilities essential to undertake R&D have also been set up under this programme. Specific mention may be made of the Medium Throughput Facility, Pharmacological Testing Facility and Centre for Pharmaco-kinetic and Metabolic Studies at CDRI, Lucknow, Immunomodulatory Potential Testing Facility at IICB, Kolkata, National Facility on Transgenic and Gene Knockout Mice at CCMB, Hyderabad, and National Centre for Bioavailability at National Institute of Pharmaceutical Education & Research, Mohali.

The Department has guided 24 socio-economic ministries in the setting up of Science and Technology Advisory Committees (STACs) for formulation of long/short-term joint technology development programmes. For co-ordinating the efforts of STACs and to take stock of activities of various ministries, the Department has also set up an Inter-Sectoral S&T Advisory Committee under the Chairmanship of Secretary, DST.

The Department has been catalytic in identifying, formulating and implementing a number of technology development programmes with the help of industries and socio-economic ministries. Efforts of the Department in this direction have helped in initiation of multi-institutional programmes in the emerging areas of technology. As a part of this programme, a number of new initiatives have been taken, viz. water technology initiative and solar energy research initiative.

Technology Information, Forecasting and Assessment Council (TIFAC) is an autonomous society set up under the Department of Science and Technology in 1988. The primary objective of TIFAC is to assess the state-of-the-art technology and help set directions and priorities for future technological developments in India, in key socio-economic sectors. TIFAC also helps in ensuring timely availability of technologies by up-scaling successful results from R&D laboratories towards commercialization, and facilitates and promotes early stage technology development. In congruence with its objectives, TIFAC carries out a number of activities, which may be broadly grouped into three categories; Studies & Information Services, Innovation Support Programmes and Mission Mode Programmes in key areas. These activities are briefly described below.

With the objective of looking ahead towards technology options, TIFAC has carried out a number of technology forecasting/assessment and techno-market studies. The reports cover a wide spectrum of technologies which review the status in India vis-a-vis global trends and assess market as well as technology aspects. They provide valuable inputs to R&D institutions, government financial institutions and academia. Recent TIFAC reports cover topics such as, technologies for retrofitting of existing buildings and structures to make them earthquake resistant; bioinvasion, SPS Measures and import of wood and wood products into India, FDI in R&D Sector and assessments of some key energy technologies (offshore wind, underground coal gasification, solar photo-voltaic, solar thermal and bioenergy).

Patent Facilitating Centre (PFC), launched in 1995, has been playing an important role at all stages of intellectual property (IP) development in the country, from ground to policy level including creating IP awareness, protection, use and exploitation of IP and keeping watch on IP development. PFC extends single window patenting facilities to Indian scientists/technologists for patent protection of any IP created, in India and other countries. In its efforts on IP management capacity building, more than 100 scientists, including women scientists, were trained in different aspects of IP management, and Patent Information Centres have been set up in 20 states.

TIFAC is implementing the Umbrella Scheme on Technology Vision 2020 Projects

in mission mode, under which a wide range of projects are being carried out in agriculture, agro-food processing, healthcare and herbal/natural products. Mission REACH (Relevance & Excellence in Achieving new heights in educational institutions) seeks to address the industry-oriented problems of technical manpower by creating TIFAC-COREs (Centre Of Relevance and Excellence), in educational institutions through a public-private partnership model. With a view to overcoming the constraints in technical education and to address the issues of quality, new approaches, such as technology enhanced learning, are being attempted.

TIFAC supports the Core Advisory Group on Automotive R&D (CAR) and is implementing precompetitive, collaborative consortia projects that seek to enhance the competition of the Indian automotive sector and enable it to reach global technology benchmarks.

A National Good Laboratory Practice (GLP) Compliance Monitoring authority has been set up to help Indian industries to obtain GLP-Compliance status for their test facilities so that data generated by these test facilities is acceptable in the countries of OCED. India at present enjoys the status of a provisional member of the OCED for the purpose of GLP.

Under the aegis of the National Action Plan on Climate Change (NAPCC), the Department has been entrusted with the responsibility of co-ordinating two national Missions on Climate Change. These are (a) National Mission on Sustaining Himalayan Ecosystem and (b) National Mission on Strategic Knowledge for Climate Change.

Technology Development Board

The Technology Development Board (TDB) was constituted in September 1996. The Board provides financial assistance to industrial concerns and other agencies for attempting development and commercial application of indigenous technology or adapting imported technology for wider domestic application. The areas that got financial assistance from the Board were health and medicine, engineering and electronics, chemicals and lubricants, agriculture and biotechnology, information technology, road/air transport, energy and waste utilisation, and telecommunication. The technology providers include national laboratories, academic institutions and recognised in-house R&D units in the industry. Some of the products successfully produced and marketed include first genetically engineered hepatitis B vaccine; bio-fertiliser from maize waste, gluten with the brand name *Suryamin*; DL2 Amino Butanol, an important substitute drug intermediate in the manufacture of anti-tuberculosis drug; Cefixime - an orally active fourth generation Cephalosporin anti-biotic; recombinant hepatitis B vaccine; CAL reagent for detection of bacterial endotoxin; carding machines for textile mills; Nicotinamide; Undecenoic Acid from castor oil; fuel pellets from municipal garbage, etc.

TDB instituted a 'National Award for successful commercialisation of indigenous technology' by an industrial concern to be given away on the Technology Day, i.e. 11th May every year commencing from 1999. The National Award consists of two components: (i) to the industrial concern which successfully commercialised the indigenous technology and (ii) to the developer/provider of such technology. Each component carries a cash award of ₹ 2 lakh to be given to an SSI unit which has successfully commercialised a technology-based product.

National Accreditation Board for Testing and Calibration Laboratories

The National Accreditation Board for Testing and Calibration Laboratories (NABL) provides formal recognition for technical competence of testing, calibration and medical laboratories. NABL accreditation is primarily based on ISO/IEC 17025:2005 for testing and calibration laboratories and ISO 15189:2003 for medical laboratories. NABL accreditation system complies with ISO/IEC 17011:2004 and Asia Pacific Laboratory Accreditation Cooperation (APLAC) MR001. Based on evaluation of NABL operations by APLAC in 2000, NABL has been granted signatory member status by APLAC and International Laboratory Accreditation Cooperation (ILAC) under their Mutual Recognition Arrangements (MRAs). This status has been renewed up to 2008 based on re-evaluation of NABL in 2004. Under these MRAs, the reports issued by NABL accredited laboratories are considered to be equivalent to reports issued by laboratories accredited by 54 accreditation bodies in 46 economies.

To complement its laboratory accreditation services, NABL plans to initiate accreditation programmes for proficiency Testing Providers and Certified Reference Materials Producers in near future.

S & T Programmes for Socio-Economic Development

The Department has been playing a pivotal role in promotion of science and technology for socio-economic development. Focus under such societal programme is to create new and potential models to facilitate employment opportunities at grassroots level and enhancement of income and quality of life. Equal emphasis is being given to provide technological solutions to location-specific problems through technology modulation, field testing and transfer.

Through the Core Support scheme, S&T based voluntary organisations are supported on long-term basis to remain active in development, dissemination and implementation of appropriate technologies in rural areas. Technology Interventions for Addressing Societal Needs (TIASN) programme aims at developing and facilitating research and application S&T based solution to identified problems and societal needs. Science & Technology Application for Weaker Sections scheme promotes development and adaptation of science and technology for improving the quality of life of weaker sections. It also promotes large-scale demonstration of newer technologies. Targetted programmes at improving living conditions of scheduled tribes and scheduled castes are being supported by the Department.

National Science and Technology Entrepreneurship Development Board (NSTEDB) established in January 1982 has been implementing several schemes and programmes on promotion of entrepreneurship and creation of sustainable employment through the application of S&T, S&T persons are being trained under Entrepreneurship Development Programmes (EDPs) and Technology based EDPs to equip them to set up their own ventures.

Science & Technology Entrepreneurship Parks (STEPs) have been set up in and around different S&T institutions in the country in order to provide facilities to existing as well as start-up entrepreneurs on technology development, testing and calibration documentation and computation training, etc. A scheme for establishment of Technology Business Incubators (TBIs) has been launched in 2000-2001 to promote the growth of technology-based enterprises and to foster faster commercialisation of R&D results. TBIs are being established in and around academic and R&D institutions in the country. Innovation and Entrepreneurship Development Centres (IEDCs) have

been established in academic institutions for creating entrepreneurial culture and fostering innovations. Science & Technology Entrepreneurship Development (STED) projects are in operation in backward districts. STED projects aim at establishment of micro-enterprises in the district of its operation. Board has launched a comprehensive website www.techno-preneur.net. The website gives detailed information on several aspects of entrepreneurship development.

Natural Resources Data Management Systems

The Natural Resources Data Management programme is being implemented to upgrade the existing data management methodologies at the district level to facilitate decision making process with regard to local area management and development. Launched in 1982-83, the programme involves several R&D institutes of national repute, universities and non-governmental agencies in a consortium mode. As a part of this programme, spatial and non-spatial database are being generated and updated at the state and district GIS centres. Different modules of Geo-Referenced Area Management (GRAM) software package are being developed to assist the information processing needs of the district and sub-district level planning. The programme also envisages to develop and demonstrate the use of GIS technology through specific decision support systems for the identified sectors, viz. water conservation, land use planning, energy management and infrastructure development. Several R&D projects in the areas of land and water management, study of landslides and hydrology of small watersheds were also supported.

National Spatial Data Infrastructure (NSDI)

NSDI was initiated in the year 2000 in R&D mode to provide collated Geo-Spatial data to user community. Over the period, NSDI policy framework was formulated and organisational structure was provided. The Government approved creation of NSDI in June 2006.

NSDI is an infrastructure for the availability of and access to organized spatial data. Use of the infrastructure is at local, community, city, regional and national levels for sustainable developments. India has, over the past years, produced a rich "base" of map information through systematic topographic, geological, soil and cadastral surveys, various natural resources inventory programmes and the use of the remote sensing images. Further, with the availability of precision, high resolution satellite images, data enabling the organization of Geographical Information System (GIS), combined with the Global Positioning System (GPS), the accuracy and information content of these spatial datasets or maps is extremely high.

NSDI is an overarching frame work for the existing data generating agencies with the authority to mandate their constituent agencies to commit their data resources and generate new data/products/services on the basis of user needs. NSDI will create a reliable and supportive environment to access geographically related information using a minimum set of standard practices, protocols and specifications. It will facilitate stakeholders, Government, Corporate Sector, NGOs, Community Organisations, Academia, Research Community and Citizens in accessing the collated datasets.

State S&T Programme

The Department of Science and Technology has been operating a scheme entitled Assistance for Development of State Councils on Science and Technology since 1980.

The main objective of the scheme is to assist States and Union Territories in setting up State Councils on Science & Technology which in turn could help the states in formulation, planning, coordination and promotion of S&T activities within their areas. The State Councils on Science and Technology have been set up in all States and UTs. The State Councils have now reached a phase of programme based S&T cooperation to address location specific and region specific problems. Steps were initiated to formulate studies on health care, traditional artisanship, agricultural practices, etc., to identify and plan S&T intervention. Steps were also initiated to help the State Councils to encourage replication of successful technologies developed by them.

Science Communication and Popularisation

National Council for Science and Technology Communication (NCSTC) has been engaged in science and technology communication/popularisation and inculcation of scientific temper among the people. The emphasis has been on the development, adaptation, promotion and use of different communication technologies and techniques utilising various media--traditional and non-traditional. The activities undertaken centred around few natural phenomena and specific events utilising these for S & T communication.

The National Children's Science Congress is an important activity involving children in the age group of 10-17 years from all over the country. The programme is envisaged to encourage the students to relate the learning of science to the environment around, to their immediate social and physical environment and provide them a forum to interact with scientists to quench their curiosity and thirst for creativity. In this programme, children in teams of five each on an average, take up scientific projects related to the local issues, work under the guidance of teachers/science activists, and report their findings at school/block, district, state and national level congress.

A Programme has been developed for promoting voluntary blood donation in the country with the objective of meeting the near total requirement of blood from healthy voluntary donors. Bibliographies of popular science books in different Indian languages published during last 150 years have been compiled. To create awareness on issues of environment and sustainable development several resource persons have been trained to organise activities for coordinators of school science clubs and activities of S&T based voluntary organisations.

Science Express is unique, state-of-the-art science exhibition on a train, travelling around India. After successful completion of two tours around the country, it is embarking on its third phase. During this phase, this train will travel to 56 locations and 18,000 km in the seven months after its launch. It would halt at each location for a few days during which it will remain open to visitors comprising mainly students. This 16-coach fully air conditioned train houses an exhibition which showcases cutting-edge research in science and technology. The exhibition strives to reveal the relevance of science in everyday life. It attempts to develop scientific temper among students and encourage them to pursue careers in science. The first phase, an Indo-German project, was flagged off by Prime Minister Dr. Manmohan Singh and German Chancellor Dr. Angela Merkel. In its earlier two phases, it travelled to more than 100 cities covering over 32,000 km across India. This innovative exhibition, which created four national records, received unprecedented response at all the halts and over 35 lakh people, majority of them students, visited it.

Vigyan Prasar

Vigyan Prasar was established in 1989 to take up large scale science popularisation programmes. It has been striving hard to reach out to masses through the mass media. Besides, efforts are underway to put together a network of Science Clubs for spreading scientific awareness and promoting use of scientific methodology in our lives.

S&T Resources Information

The Department of Science and Technology makes available on a continuous basis information on resources both manpower and financial resources devoted to science and technology activities. The directory of R&D institutions in India being brought out regularly covers names and addresses of R&D institutions under Central government, State governments, in-house R&D units of public sector and private sector industries, universities including deemed universities and institutes of national importance, and scientific and industrial organisations in the private sector.

The database on extramural research and development projects funded by different Central government agencies is being maintained and updated regularly. The data is being utilised to compile the Directory of Extramural Research Projects.

International Co-Operation

International Science and Technology co-operation is realized at three levels, viz. bilateral co-operation with developed and developing countries, regional cooperation such as with SARRC, ASEAN and BIMSTEC; and multilateral co-operation through STEPAN, TWAS, IBSA, UNESCO and NAM Science and Technology Centre etc. India has got bilateral science and technology co-operation with 70 countries. Suitable mechanisms have been established with conclusion and implementation of programmes of co-operation with Argentina, Bangladesh, Belarus, Brazil, Bulgaria, China, Cuba, Egypt, France, Germany, Hungary, Indonesia, Iran, Israel, Italy, Japan, Kazakhstan, Malaysia, Mexico, Myanmar, Poland, Republic of Korea, Romania, Russian Federation, Singapore, Switzerland, Sri Lanka, South Africa, Tunisia, Ukraine, UK, USA, Uzbekistan, Vietnam etc.

An Integrated Long Term Programme of Co-operation in Science and Technology between India and Russia is the major interaction instrument between the two countries. Indo-French Centre for Promotion of Advanced Research (IFCPAR) is one more initiative between India and France for promotion of collaborative research in advanced areas of fundamental and applied science and technology. Another major bilateral programme in the form of Indo-US Science and Technology Forum has been launched. Various modes of co-operation with Germany through German Academic Exchange Service (DAAD), German Research Foundation (DFG), German Federal Ministry of Education and Research (BMBF) and Partner groups of Max Planck are being implemented.

Through a structured scheme Indian scientists are provided access to advanced scientific facilities abroad. Under this, Indian scientists have conducted experiments in the fields of crystallography, condensed matter physics, high energy scattering, solid x-ray spectroscopy, nuclear resonant scattering, magnetic Compton studies, etc., and received advanced training and international research facilities under various international Science and Technology co-operation programmes.

Through bilateral S&T Co-operations, a number of Joint R&D Centres have

been established: Indo-Russian Research Centre in Advanced Computing at Moscow; International Advanced Research Centre for Powder Metallurgy (ARCI-I) at Hyderabad; Indo-Uzbek Centre for Medical Applications of Low Level Lasers for treatment of Tuberculosis and allied diseases at New Delhi; Indo French Centre on Organic Synthesis; Indo-German Centre and others.

A number of collaborative national programmes, viz. design and development of INDUS-I and INDUS-II synchrotron radiation sources at Indore with Russian collaboration; characterization of Ladakh (Hanle) site for installation of the 2-m telescope and setting up of 14 GELOP computer at Indian Institute of Astrophysics, Bangalore for N-Body simulations with Japanese experts; Development of gamma ray telescope at Mount Abu with Russian collaboration; a plan for production of 100 million doses of oral polio vaccine (OPV) at Bulandshahar with Russian collaboration; and superconducting cyclotron and cryogenics at VECC, Kolkata have been established.

To mobilize the skills and expertise of Indian scientists and technologists working abroad, a new programme known as Collaborative Projects with Scientists and Technologists of Indian origin abroad (CP-STIOs) have been launched for strengthening Indian institutional and human capacity in frontier areas of science and cutting edge technologies as well as for accelerating achievements of goals set out in ongoing nationally important Indian Research Programmes.

Focused attention is also being paid on applied and commercial R&D and to catalyze industry-led joint ventures and joint technology development projects under bilateral S&T programmes. Efforts have been made to enhance interaction with industry through interaction meetings such as Technology Summits, Knowledge Summit etc. by involving industry associations such as FICCI, CII and ASSOCHAM. Global Innovation and Technology Alliance (GITA) has been launched in public-private mode with CII for promoting innovative and industrially relevant ideas.

Emphasis is also being paid on developing strategic research partnerships with select countries in bilateral mode through dedicated funds from both sides. These countries include Israel, UK, USA, Canada, China, Australia, Switzerland, EC, Germany and Russia.

International Co-operation Division is also actively working on India's participation in International Facilities such as Facility for Anti Proton and Ion Research (FAIR) at Germany as well as in developing International facilities in India through bilateral/multi-lateral co-operations.

Survey of India

Survey of India (SOI), the national survey and mapping organisation under the Ministry of Science & Technology, was set up in 1767. In its assigned role as the National Principal Mapping Agency, Survey of India bears a special responsibility to ensure that the country's domain is explored and mapped suitably to provide base maps for expeditious and integrated development and ensure that all resources contribute their full measure to the progress, prosperity and security of India. The primary responsibility of SOI is to maintain topographical map coverage on 1:250K 1:50K and 1:25K scales. The topographical map coverage on 1:250K and 1:50K scales covering the entire country have been completed and the map sheets are being updated at regular intervals to depict latest spatial information. Surveys on 1:25K scale were taken up as national requirement keeping in view the priorities indicated by the Central/State governments and other user agencies.

Besides being grouped under “Scientific Surveys” in Government of India Business Rule 1971, it has also been called upon extensively to deploy its expertise in the field of geodetic and geophysical surveys, study of seismicity and seismotectonics, glaciology, participation in Indian Scientific Expedition to Antarctica and projects related to digital cartography and digital photogrammetry, etc., to provide basic data to keep pace with Science and Technology Development. SOI has undertaken creation of Digital Cartographic Data Base of Topographical maps on various scales. The digital data is being used by various agencies for planning and GIS applications. It also undertakes large scale surveys for various developmental projects including hydro-electric, irrigation, command area, canal area, cantt. area schemes, etc. The Department is responsible to fix the external boundary of India, their depiction on maps published in the country and also advise on the demarcation of inter-State boundaries.

The Survey of India also provides support to other countries e.g. Nigeria, Afghanistan, Kenya, Iraq, Nepal, Sri Lanka, Zimbabwe, Indonesia, Bhutan, Mauritius, etc., in the field of mapping, survey education, transfer of technology and various other surveying technologies under bilateral arrangements. Under UN mandate, Survey of India also provides support to countries in Asia-Pacific Region for capacity building in Spatial Data Infrastructures.

Survey Training Institute, Hyderabad established under UNDP assistance is a premier institution for training in various disciplines of surveying and mapping to the trainees sponsored by the department, other State/Central Government Organisations and neighbouring countries. It is proposed to convert the Institute to an institute of excellence in Geospatial Sciences and also start B.Tech, M.Sc. and M.Tech. courses in Geospatial Technologies to cater to national demand for highly specialized Geospatial Technology professionals for Government and Industry.

Keeping in view a new National Map Policy announced on May, 2005, Open Series Maps based on UTM projection and WGS-84 datum which is compatible with the coordinate system of GPS, used in all activities of surveying and mapping, are being published for users community. Defence Series Maps based on Lambert Conformal Conic Projection and WGS-84 datum are being published for Defence Forces which are declared as classified. As per demands projected from various user agencies like Director General Information System (Military Survey), Ministry of Urban Development for Zonal Planning, Commission for NNRMS Project, Microzonation for disaster management etc., SOI will be taking up mapping on 1:10K scale for the whole country and for urban areas on 1:2000 scale during the 11th Plan period.

SOI is in the forefront of providing tidal information for the Indian Ocean by observing sea level data at various ports of India and other countries. These are crucial for scientific study in fields including climatology modelling, analysis of Sea Level changes, predicting Tsunami etc. Besides, this is also important input for sea navigation. Considering the necessity of this critical data in the scenario of global warming causing the sea level changes and disaster like Tsunami in the region, SOI is in the process of establishing 36 automated Tide Gauges co-located with GPS along with real time data transmission facility to tidal data centre at Dehradun.

Geo-spatial data are being generated at various levels and by various agencies. These are being utilized for various applications which need the integration of data from various sources. To enable this data integration, SOI has taken in its hand a Herculean task of redefining the vertical datum of Geoids by establishing a network

of well spread standard ground control points throughout the country. This will enable the state cadastral department besides other agencies and industries engaged in acquiring geo-spatial information to carry out their job in a national reference system.

National Atlas and Thematic Mapping Organisation

While Survey of India meets the national needs in cartography, some specialised thematic maps required to meet the needs of the specific users are taken care of by the National Atlas and Thematic Mapping Organisation (NATMO), operating under the Department. It also concentrates its attention in a number of areas to integrate resource maps with other relevant socio-economic data and represent them in spatial forms, useful for developmental planning. NATMO is trying to develop the new technology of reverse printing for NATMO maps on experimental basis. It is also trying to introduce the technique of using metallic colours in map printing. These facilities are also being modernised.

Autonomous Scientific Institutions

Department of Science and Technology provides grants-in-aid to the following 19 autonomous scientific research institutions engaged in frontier areas of research in basic and applied sciences: (i) Bose Institute, Kolkata is devoted to fundamental and applied research in physical and life sciences; (ii) Agharkar Research Institute, Pune—research in basic and applied aspects in the fields of biological sciences; (iii) Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvananthapuram— developing biomedical engineering and technology, providing and demonstrating high standards of patient care in advanced medical specialities and developing post-graduate training programme of the highest quality in these fields; (iv) Indian Association for the Cultivation of Sciences, Kolkata— studies on solid state physics, material sciences, theoretical physics, spectroscopy, energy research, chemistry including biological chemistry, polymer science, etc; (v) Indian Institute of Astrophysics, Bengaluru— research in emerging as well as interdisciplinary areas of astrophysics and heavenly bodies, and development of instruments used in astrophysical studies; (vi) Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru— research in frontier areas of chemistry, physics of materials, computational fluid dynamics, geodynamics, condensed matter theory, animal behaviour, genetics, etc; (vii) Raman Research Institute, Bengaluru— research in basic sciences such as astronomy, astrophysics, liquid crystals, etc; (viii) S.N. Bose National Centre for Basic Sciences, Kolkata— promoting advanced studies in selected branches of basic sciences; (ix) Birbal Shahni Institute of Palaeobotany, Lucknow— research in the area of palaeobotany, its relevance in modern context, (x) Indian Institute of Geomagnetism, Mumbai— observing and understanding some of the physical processes taking place in the innermost crusts of the earth as well as phenomena occurring on the sun and in near earth and interplanetary space; (xi) Wadia Institute of Himalayan Geology, Dehradun— basic research in areas of biostratigraphy, petrology and geochemistry, sedimentology, tectonics and environmental geology to understand the geodynamics of the Himalayan region; (xii) International Advanced Research Centre for Powder Metallurgy and New Materials, Hyderabad— the development of high performance materials, and processes; (xiii) Technology Information Forecasting and Assessment Council, New Delhi; (xiv) Vigyan Prasar, Noida, U.P.; (xv) National Accreditation Board for Testing and Calibration Laboratories, New Delhi; (xvi) Centre for Liquid Crystal Research,

Bengaluru; (xvii) Aryabhata Research Institute of Advanced Studies (ARIES), Nainital; (xviii) Institute of Advanced Study in Science and Technology, Guwahati; and (xix) National Innovation Foundation, Ahmedabad.

DST also extends financial and administrative support to the following academies and professional bodies which are engaged in the promotion of S and T in the country through the involvement of scientists and engineers: (i) Indian Academy of Sciences, Bangalore; (ii) Indian National Science Academy, New Delhi, (iii) Indian National Academy of Engineering, New Delhi; (iv) National Academy of Sciences, Allahabad and (v) Indian Science Congress Association, Kolkata.

LANDMARK ACCOMPLISHMENTS AND NEW INITIATIVES

Establishment of Science and Engineering Research Board : Establishment of National Science and Engineering Research Board (SERB), as an autonomous body for promoting basic research, was notified in March 2010. Composition of the Board too has been finalized. The Board is expected to play a major role in the promotion of Extra Mural Research in the country.

Implementation of Innovation in Science Pursuit for Inspired Research (INSPIRE) : Roll-out of four of the five sub schemes of INSPIRE has been made during 2009-10. A total of 1,20,995 INSPIRE Awards for the youth in the classes of VI to X from 25 States and Union Territories have been released. In addition, 55 summer and winter camps for about 14000 INSPIRE Interns for youth in the class XI have been organized. Seventeen Nobel prize winners have participated in these camps. Further, 2396 INSPIRE scholarships for youth pursuing studies in basic sciences in mathematics, physics, chemistry and life sciences have been sanctioned besides 360 INSPIRE Fellowships for doctoral studies for the top rankers in the university examinations.

Special package for Infrastructure Strengthening of Academic Sector in Jammu and Kashmir : In order to promote basic research in Jammu and Kashmir, a special package of ₹ 60 crore for the period 2009—14 has been designed and delivered. Under this scheme, 38 colleges have been supported with ₹ 50 lakh for strengthening laboratory infrastructure. 70 visiting professorships for senior faculty from other regions of the country to teach in universities in J&K region have been created while 70 visiting positions for young faculty of J&K for research in other regions of India for duration of 3-6 months have been sanctioned. 100 fellowships for doctoral students from J&K for work in other regions of India have been provided. Special support for creation of back-up power facilities up to ₹ 1.5 crore per university has been extended.

Consolidation of University research, Innovation and Excellence (CURIE) for Women Universities : As a proactive measure for improving the research infrastructure in 'women only' universities, a special scheme CURIE has been designed and delivered. Two of the six women universities received the support under the scheme during 2009-10.

Solar Energy Research Initiative : A pan IIT initiative for solar energy research has been mounted. Under the initiative, total of 37 faculties from 6 Indian Institutes of Technology (IIT) have been networked for a coordinated project. A company has been commissioned to design, develop and establish 256 kw power plant in a village based on solar and biomass energy options within 18 months. Under the project, diesel power parity in terms of cost per unit being less than ₹ 9 per kwh has been

targeted.

Indo US Endowment Board : In order to support S&T cooperation with US, an endowment fund of US\$ 30 million has been created. In order to manage the fund, an Indo-US Endowment Board has been formed.

Establishment of a New Mechanism : In order to promote convergent technology solutions for applications in rural India, a new Council for Science and Technology for Rural India (CSTRI) has been formed and two facilitation centres, one at North East Institute for Science and Technology and other at Indian Institute of Technology, Madras at Chennai have been established.

Conversion of National Innovation Foundation into an Autonomous Institute : National Innovation Foundation has been supported through a corpus fund from DST for promoting grassroots and inclusive innovations for more than 10 years. Approvals have been obtained for conversion of NIF into an autonomous institution of DST during 2009-10.

National Mission for Sustaining Himalayan Ecosystem (NMSHE) : Prime Minister's Council on Climate Change has accorded in principle approval for implementing a National Mission for Sustaining Himalayan Ecosystem. This National Mission will be coordinated by DST in close collaboration with other sister departments especially Ministry of Earth Sciences and Ministry of Environment and Forests.

National Mission on Strategic knowledge for Climate Change (NMSKCC) : PM's Council on Climate Change has accorded in principle approval for implementing a National Mission for Strategic knowledge for Climate Change. This national mission will be coordinated by DST in close collaboration with other sister departments, especially Ministry of Earth Sciences and Ministry of Environment and Forests with special oversight mechanism and mirror sites for data management and monitoring.

OUTPUT INDICATORS OF ONGOING PROGRAMMES

Research and Development : There have been significant increases in the number of Extra Mural Research projects funded under Science and Engineering Research Council (SERC) during 2009-10. Total number of projects funded under SERC during 2009-10 is 537 which represents an increase of 68% over the number of projects supported during 2006-07. In terms of funds sanctioned, this increase represents a growth of over 235% during the three years. JC Bose Fellowships, Ramanujan Fellowships and *Swarna Jayanti* Fellowships were awarded to 35, 27 and 5 scientists respectively in 2009-10. A comprehensive Human Resource Development programme in mathematical sciences has also been approved by SERC.

During the year 2009-10, about 355 new projects were sanctioned to young scientists under fast track mode while 103 young scientists, under the age of 35 years, received overseas fellowships for advanced training and 320 students were selected for prestigious KVPY fellowships.

Technology Development Programmes : Technology Development programmes implemented by DST are generally based on technology leads sourced from various public funded institutions in the country and linking them to translation and field implementation of the technologies. Technology leads selected for translation and

implementation are: micro hydel systems for decentralized power generation, water purification for drinking water and solid waste management. About 30 Technology leads were selected for translation and further development and technology proving in more than 50 locations in the country.

S&T for Socio-economic Development : Programmes relating to Science and Technology for Socio economic development by the department have been of many types. In some cases, they pertained to the development of Entrepreneurship, technology incubations, women entrepreneurship parks, projects leading to capacity building of rural youth and weaker sections of the community. National Resource Data Management Systems (NRDMS) provide location specific data on natural resources using geo-spatial and other data. Science and Society programmes have delivered, through long term core support, to 17 field groups, training programmes for women and youth covering about 250 groups, and 35 new projects sanctioned during 2009-10. Several capacity building programmes involving self-help groups have been organized. The total number of people benefiting directly from the various programmes initiated under Science and Society scheme of DST during the year 2009-10 is estimated at 3,000 approximately.

S&T Entrepreneurship Development : During the last three years special momentum for establishment of Technology Business incubators (TBIs) has been gained. Five new incubators were established during 2009-10 and seed support was extended to three Science and Technology Entrepreneurship Parks (STEPS). A status report on STEPs and TBIs has been brought out for the first time. Innovation and Entrepreneurship Development Centres (IEDC) is a new scheme under which six IEDCs were established during 2009-10. Science and Technology Entrepreneurship Development (STED) projects were further consolidated under which 2500 micro units were promoted during the year. More than 8000 students were imparted training in Entrepreneurship Development during the year.

International S&T Cooperation : Under the various ongoing S&T cooperation related activities, eighteen workshops and thematic meetings and about 520 exchange visits, 416 new joint projects with support to more than 500 ongoing projects and seven programmes were facilitated. Active programmes of cooperation with 25 countries and EU, SAARC were supported during 2009-10. New intergovernmental agreements were finalized with six countries. Total of 13 joint committee meetings were held during 2009-10. CV Raman Fellowships with Africa Fund making a provision for 1216 person months of Research work per year in India were finalized.

National Data Management Information System : R&D statistics relating to Indian S&T sector for two financial years namely 2006-07 and 2007-08 were collected and brought out. Updating of R&D statistics data to gain currency has been prioritized during 2009-10. Global Research Report prepared on behalf of DST by Thomson Reuters has brought out the growth trends in scientific publications from India. CAGR of publication rate is assessed at about 12% per annum for the last three year period. This is to be compared to the global rate of about 4% for the corresponding period. Relative position of India with respect to filing patents in the USA has improved from 25th in 2000 to 19th in 2006 and 16th currently. The Department has mounted a new initiative namely Science Technology and Innovation and Creation of Knowledge (STICK) with a view to developing innovation indicators and bench marking of national innovation system.

Science Communication : More than 25 interactive programmes on science and technology covering all regions of the country were implemented during 2009-10. Children Science Congress, Teachers Science Congress, Science Communicators Congress, Hands on Science are some mega programmes organized by the Department during 2009-10. Total number of people to whom National Council for Science and Technology Communication (NCSTC) wing of DST connected during 2009-10 exceeds 15 lakh. Science Express, a unique exhibition mounted on a 16 coach AC train, remained flagship programme of NCSTC and after completion of the third phase over 51 lakh people had visited it.

Survey of Indian and National Atlas and Thematic Mapping Organization : Survey of India and National Thematic Mapping Organization (NATMO) have carried out more extensive survey and prepared map data and products with increased spatial resolution for Open series maps. Generation of digital topographic data on 1:25000 scale is under progress. Of the 19390 sheets, 12027 have already been surveyed and 7874 sheets published in hard copy form with 5400 sheets being available in digital format in soft copy forms. Tidal observatory network has been upgraded by installing 25 digital tidal gauges collocated with GPS receivers along the Indian coast line.

Autonomous Institutions nurtured by DST : Department supports total of 15 research institutions, 5 professional bodies and three specialized knowledge institutions covering a wide range of research and science and technology areas. Average number of publications emanating from these institutions during the last three years has been about 1350 per year with an average impact factor per paper of 2.3. During the year 2009-10, more than ten scientists working in the institutions received high academic honours in the form of election to prestigious science academies, Shanti Swarup Bhatnagar prizes, etc.

Nano Mission and Mega Science : Under Nano Mission, 33 new projects were initiated during 2009-10. Indian beam line in Synchrotron at KEK, Japan has been built and made available to Indian scientists for 250 days a year on a dedicated basis. Negotiations have been completed for availing access to Petra III in Desy in Germany. This arrangement would provide access to 13 beam lines in the advanced facility for supporting research on materials science. Similar negotiations have also been completed for gaining access to Elettra in Italy for facilitating access to support macro molecular crystallography.

Drug and Pharmaceutical Programme : Six new collaborative projects between public funded institutions and industry as well as 8 loans for R&D in the private sector enterprises have been supported under Drug and Pharmaceutical programme. Phase 3 clinical trials for an Indian drug for Malaria have commenced under this programme. New products for *Kala Azar* and anti-AIDS have been launched in the market during the year 2009-10.

Innovation Cluster : A public-private partnership with NASSCOM for supporting innovation clusters in select sectors has been developed. Incubation centres on innovation are being promoted through a partnership with Technology Development Board.

Water Technology Initiative : Under water technology initiative, twenty technology products have been identified for assessment for applications in rural schools in 20

States. The assessment process has included evaluation of technical, financial as well as social viabilities.

Training programmes of S&T Manpower : Total of 41 training programmes have been conducted during 2009-10.

RESOURCE INPUTS PLANNING AND DEPLOYMENT

Financial Deliveries : The total financial delivery of the Department has been 99.77% of the Revised Estimates of Plan funds. On account of implementation of several austerity measures, a net saving of Non-plan expenditures has been realised. System for expenditure planning and monitoring has been standardized and implemented resulting in process efficiency.

Structured Mechanisms for Determining Grant-in Aid to Aided Institutions of DST : After several rounds of brainstorming discussions and planning, a systematic approach to determine the level of Grant in Aid for aided institutions has been developed. Fixed costs of the institutions "A" were determined based on the number of scientific faculties contributing directly to the R&D outputs of the organization. Fixed costs per faculty have been fixed at ₹ 30 lakh per scientist. Development costs of the laboratories "B" covering R&D heads of equipment, consumables and chemicals as well as library have been computed at 66% of fixed costs of each institution. Objective methods for measuring the performance growth rate "C" over four of five selected parameters have been worked out. Consensus among all the aided institutions for determining the size of the annual Grant in Aid has emerged. The phase wise implementation of the approach commenced during the financial year 2009-10. Evidence-based resource deployment strategy for R&D institutions nurtured by DST is being experimented.

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH

The Department of Scientific and Industrial Research (DSIR) is a part of the Ministry of Science and Technology with the mandate for indigenous technology promotion, development and utilization. The primary endeavour of DSIR is to encourage industry to increase their share in country's R&D expenditure, to nurture the innovative spirit of individuals by helping them to convert their innovative ideas into models/prototypes and to support industrial units to develop and demonstrate state-of-the art globally competitive technologies of high commercial potential.

DSIR implements the plan scheme "Technology Promotion, Development and Utilization (TPDU) Programme" apart from coordinating the activities of two autonomous bodies, namely Council of Scientific and Industrial Research (CSIR) and Consultancy Development Centre (CDC) and two public sector undertakings, National Research Development Corporation (NRDC) and Central Electronics Limited (CEL).

Technology Promotion, Development and Utilization (TPDU) Programme

TPDU scheme has the following components:

- i. Industrial R&D Promotion Programme.
- ii. Technology Development & Demonstration Programme.
- iii. Technopreneur Promotion Programme.
- iv. Technology Utilization Programmes.
- v. Flagship Programmes.

- vi. Asian and Pacific Centre for Transfer of Technology.
- vii. Technology Development Utilization Programme for Women.
- viii. Information Technology and e-Governance (IteG).

The Objectives are :

- To promote and nurture research and development in industry.
- Promotion and support for development of new and innovative products, processes and technologies and for improving industrial competitiveness.
- Promoting technology evaluation, utilization and linkages with relevant agencies to improve efficiency.
- Implementing flagship programmes in the department.
- e-Governance initiatives.
- Preparation of a strategic action plan for next five years.

Industrial R&D Promotion Programme

DSIR is the nodal Department for granting recognition to in-house Research and Development centres. The programme deals with all activities relating to recognition of in-house R&D units in industry and non-commercial Scientific and Industrial Research Organisations, fiscal incentives and other mechanisms and initiatives towards supporting and encouraging R&D efforts of industry. A total of 92 in-house R&D units of industry and 16 Scientific and Industrial research Organisations (SIROs) were granted fresh recognition during 2009-10. 101 public funded research organizations/institutions were registered or renewed for purposes of availing custom duty exemption on imports made for R&D and central excise duty exemption on domestic purchases for R&D. 70 approvals u/s 35 (2AB) were issued by DSIR to the DG (IT Exemptions) to enable companies to claim weighted tax deduction @150% on their in-house R&D investments. Incentives and support measures provided under the scheme contributed a great deal in enhancing the R&D expenditure by recognized in-house R&D units of industry.

Technology Development and Demonstration Programme (TDDP)

The programme aims at catalyzing and supporting activities relating to technology absorption, adaptation and demonstration including capital goods development, involving industry and R&D organizations. Under the scheme, projects for absorption and up-gradation of imported technology as well as development and demonstration of new and improved technologies are supported. While DSIR support has been catalytic and partial, bulk of the financial contribution in such projects have been from the industry. These projects cover products and processes in various important industries such as metallurgy, electrical, electronics, instrumentation, mechanical engineering, earth moving and industrial machinery, chemicals and explosives. TDDP projects have encouraged participation of public and private sectors in technology development efforts. The projects have contributed to building of technological self-reliance in the country. The projects completed have resulted not only in technological and commercial returns such as cost reduction, higher quality, improved products and processes as well as foreign exchange savings to the concerned companies, but also helped to build up the R&D capabilities of the industrial units involved. Around 20 ongoing projects under Technology Development & Demonstration Programme were reviewed and monitored and 8 projects were completed. 14 new technology

development projects aimed at developing competitive technologies were recommended for support during 2009-10.

Technopreneur Promotion Programme (TePP)

The programme aims to tap the vast innovative potential of the citizens of India. The activities under TePP include providing financial support to individual innovators having original ideas and convert them into working models, prototypes, etc. The TePP network has been strengthened with establishment of 28 TePP Out Reach Centers (TUC). A total of 68 new projects under Technopreneur Promotion Programme, involving individual innovators were supported and 10 ongoing projects were completed during 2009-10. Training-cum-Orientation Programme for representatives of TePP Outreach Centres was organized in association with PSG-STEP, Coimbatore and TePP innovators participated in International conference on Incubation & Entrepreneurship at Coimbatore.

Technology Utilization Programmes

Under Technology Utilization Programmes during 2009-10, Technology Management Training Programme on 'Herbaceuticals, Herbal Cosmetology and Aromatic' was organized at Patna under Technology Management Centre by IED Patna, Bihar; A Workshop on 'technology and Innovation Management Issues in North West India' was organized at Shimla under Technology Management Centre by IHBT, Palampur; Ninth edition of Compendium on technology Exports was brought out; A research study on 'Technology Branding in SMEs was completed; and Wood Insect Database and Database of Traditional Knowledge in Andhra Pradesh was completed.

It was also proposed to mount three programmes that can emerge as the **flagship programmes** of the department.

International Programme

The fifth meeting of the Technical Committee and the fifth session of the Governing Council (GC) of the Asian and Pacific Centre for Transfer of Technology (APCTT) was held in December 2009 in Bangkok, Thailand.

Technology Development and Utilization Programme for Women

A project on Primary Processing and Value Addition of Sweet Potato and Yams for Self Employment Generation by Women was completed during 2009-10.

Information Technology and e-Governance (IteG)

Under ITeG, the Department implements a comprehensive programme to accelerate e-Governance through Information Technology for improving efficiency, transparency and accountability. Under the programme, departmental processes are being automated that will enable online submission of applications as well as online access to the status of applications in the department. The department also maintains a website: <http://www.dsir.gov.in> that is continuously updated.

National Research Development Corporation (NRDC)

NRDC is a Public Sector Enterprise under Department of Scientific & Industrial Research, Ministry of Science & Technology, Government of India enterprise, established in 1953 under section 25 of the Companies act, to Promote, Develop and Commercialize technologies/know-how/ inventions/ patents/ processes emanating from various National R&D institutions. The Corporation offers its services in improving the manufacturing base in India with Innovative technologies specially suitable for Indian entrepreneurs and acts as an effective catalyst in translating

research into marketable industrial products. Equipped with a vast number of technologies, the Corporation is now recognized as a repository of a wide range of technologies spread over almost all areas of industry and has licensed technologies to over 4600 entrepreneurs whose total cumulative production at the end of 2009-10 stands at around ₹ 1500 crore.

Beside technology licensing, the Corporation has also been providing services for the promotion of technologies by way of rendering technical and financial assistance for prototype development, protection of inventions by filling patents in India and abroad, pre-investment studies, Feasibility/Project reports, Basic Engineering Design Packages, Raw Material and Product Testing etc.

The extensive expertise within the Corporation along with the ever expanding network of national and international contacts it has built up with scientific bodies, technology transfer agencies, industrial and engineering concerns ensures that entrepreneurs receive the very best in technology and other services to build successful enterprises.

Central Electronics Limited (CEL)

CEL is a Public Sector Enterprise under Department of Scientific & Industrial Research, Ministry of Science & technology, Government of India established in 1974 with an objective to commercially exploit the indigenous technologies developed by National Laboratories and R&D Institutions in the country.

CEL's operations are grouped into three major areas i.e. Solar Photovoltaics (SPV), Strategic Electronics (Microwave Electronics & Piezo Electronic Ceramics) and Railway Safety and Signalling Electronics. CEL is a manufacturer and supplier of Solar Photovoltaic Cells Modules, Home Lighting Systems, Street Lighting Systems etc nationally as well as internationally. CEL is a leader in the development, manufacturing, supply and commissioning of signalling and safety equipment to Indian Railways to meet their existing and emerging modernization needs. CEL is the only indigenous manufacturer of Phase Control Modules (PCMs), a key element of Phased Array Radar.

CEL successfully executed a project for electrification of villages in Afghanistan. It also entered into an agreement with Government of Mali for export of SPV modules & systems for next five years, valued at US \$ 4.2 million and signed an MoU with Mozambique for Technology Transfer for Solar Modules manufacturing line.

CEL plans to enhance the production capacity of Single-Section/Multi-Section Digital Axle Counter from 1000 to 2000 sets and also the production of piezo Generator of heat fuse 551 for 84mm Carl Gustaf Gun from 20 K to 150 K nos. per year. Further, CEL plans to develop Dye Sensitized Solar Cells (DSSC) modules up to 100 Wp in association with EFPL, Switzerland and also develop and deploy railway safety and signalling equipment like Point Zone Digital Axle Counter and Universal Fail Safe Block Interface Equipment (UFSBI).

Consultancy Development Centre (CDC)

Consultancy Development Centre (CDC) is an autonomous institution under Department of Scientific & Industrial Research, Ministry of Science and Technology, Government of India, established in 1986, with the objective of promoting and developing consultancy profession.

CDC activities include: creation of trained human resources for consultancy industry; capacity building of consultants and clients; maintaining database of

consultants/ experts across disciplines; carrying out studies for development of consulting profession; certification of specialized consultants/facilitators; etc.

CDC offers MS (Consultancy Management), Certificate in Technical Consulting and Certificate in Management Consulting and has certified over 500 candidates through its education programmes.

CDC has a database of over 10000 consultants/both individuals/firms across disciplines.

During 2009-10, CDC has conducted several programmes across the country for “Capacity Building for Effective Use of Consultants”, “Opportunities/role of Consultants in Plan Projects” and developed a comprehensive documentation/package for technology commercialization. It has conducted studies on export of consultancy services to Latin American and African countries.

Technical Consultancy Development Programme for Asia and the Pacific (TCDPAP), for which CDC is the Secretariat, organized its annual conference in March 2010 in Hanoi, Vietnam.

Council of Scientific & Industrial Research (CSIR)

CSIR is an autonomous, non-profit publicly funded R&D organization under Department of Scientific & Industrial Research, Ministry of Science and Technology, Government of India, established in 1942 with objectives to provide scientific and industrial R&D that maximizes the economic, environmental and societal benefits for the people of India.

CSIR has a network of 37 national laboratories and 39 outreach centres attached to them, with pan-India footprint. Since its inception, it has been a source of indigenous technologies for industrial competitiveness, S&T base for strategic sector, technology for common mass and science for advancement of knowledge. It has been providing yeoman services to foster, sustain and upgrade stock of highly specialized scientists, engineers and technologists in diverse disciplines of science and technology in the country. CSIR envisages creating few translational research centres named as ‘Innovation Complexes’ across the country at certain strategic locations, viz. New Delhi, Pune, Kolkata, Chennai, Ahmedabad and Bengaluru. These complexes aim to expand innovation capacity vertically and horizontally.

To strengthen the future leadership in the area of science and engineering in integrated and interdisciplinary areas, the Union Cabinet has approved the proposal of CSIR for setting up of an Academy of Scientific and Innovative Research (AcSIR). The Academy will primarily focus on research and impart training in such areas that are not ordinarily provided by the existing universities in India. AcSIR would take advantage of its rich state-of-the-art infrastructure and scientific manpower of CSIR. The Academy will operate on the hub and spoke model with campuses spread across the country, in all its 37 constituent laboratories. The Academy will be a world class institution of national importance.

CSIR has regrouped and repositioned its key sectors of knowledge and technology generation in five clusters which are: Biological Sciences; Chemical Sciences; Engineering Sciences; Physical Sciences; Information Sciences, and CSIR 800. Other significant domains of its activities include Human Resource Development and Intellectual Property generation and management.

Knowledge base generated by CSIR has helped people of our country in several ways. Some of CSIR’s significant latest achievements, cluster-wise, have been:

Biological Sciences: CSIR recognizes its role in this sector well and for the past several decades has been working in this area. It has set incredible benchmarking in making the health affordable for the masses and made many discoveries in the field of biological sciences. A novel indigenously drug formulation against tuberculosis called 'Risorine' has been developed by CSIR for the first time in the World in public private partnership mode which could drastically cut short the duration of TB treatment. Lead for this novel formulation is obtained from Ayurveda. Recombinant streptokinase—a clot bluster from *E.coli* developed by CSIR has been launched for Indian market under the brand name 'Lupifio' and 'Klotbuster'. This technology would bring down the prices significantly and will be economically viable. CSIR has developed a unique single plant based natural memory enhancer formulation—BESEB ("Bacosides Enriched Standardized Extract of Bacopa") from the herb *Bacopa monniera*. The process for making enrichment of the active constituents (Bacosides A & B) in BESEB has been patented by CSIR. The plant is commonly known as Brahmi which has been used in the Indian System of Ayurvedic Medicine as a traditional herb for over 3000 years to enhance memory and learning. The product under the brand name - 'Memory Sure' has been launched in India. A new bacterial genus named 'Indibacter' has been isolated from a water sample which could be used as potential source for enzyme required for hydrolysis of starch under extreme conditions of salinity and pH. A technology for *Caerulomycin A*, and its proprietary derivatives and analogues for their novel indication of immuno-suppression—a discovery of immense importance in tissue transplantation has been developed and transferred by CSIR to the industry. CSIR has developed and transferred shelf footwear named as 'Diastep' for low risk diabetic patients. The upper has been provided with adjustable fasteners to take special care of fluctuations in foot volume.

Chemical Sciences: CSIR is known globally for its core strength in the areas of chemistry and chemical engineering with emphasis on developing green technologies. Over the years, its domain-specific laboratories have not only published results of many seminal basic research studies, but have also developed a large number of processes and products for industrial use. It provides leadership in environmental protection for sustainable development and providing innovative and effective solutions to environmental and natural resource problems. CSIR has developed an improved process for Propane Deasphalting (PDA) technology for producing high viscosity lube base stock from vacuum residues. The current development would make the plant highly energy efficient. It has designed and developed microprocessor-based rotary Viscosity transmitter (VISCOTRAN) which can be used to monitor viscosity of the massecuite in real time and control parameters to obtain better sugar quality and to reduce sugar losses in molasses. A solid oxide fuel cell using hydrogen as the fuel to draw power sufficient to light several low watt bulbs has been developed by CSIR for the first time in India. An MOU has also been signed with Kingdom of Saudi Arabia for the supply of solid oxide fuel cell. A secure landfill technology has been developed by CSIR which has been transferred to several tannery clusters in India. A process to utilize waste gypsum to manufacture building materials from H-gypsum, conversion of waste plastics to value added hydrocarbons, and hydrotreating of vegetable oil for green diesel production are some of the recent achievements of CSIR in this cluster.

Engineering Sciences: CSIR as an R&D provider has tremendous responsibility to contribute significantly to the growth of this area which on one hand creates wealth and on the other has the potential for large scale employment generation through

various manufacturing processes. This area covers a wide spectrum of engineering application from aerospace, electronics to infrastructure. Some of the important developments in this sector are: development of carbon fibre technology which will be a beginning towards indigenisation of this vital raw material on a large scale; these fibres used for indigenous modern aircraft manufacture. The technical know-how has been transferred to M/s Kemrock for commercialization of the product. To extend the life of opencast mines without disturbing the surface dwellings and maintain economy and productivity, CSIR has developed a technology on Highwall Mining. First indigenous Wankel Engine powered unmanned Air Vehicle 'NISHANT' developed by CSIR has performed its maiden flight successfully meeting all the requirements of Air Vehicle. Besides this, solid film lubricant coatings - as an alternate material to be used for BRAMOHS missile, a special variety of non-photonic crystal fibre made of pure silica useful in various applications, head up display for LCA, Fibre Bragg Grating (FBG) sensor, portable analog seismic recorder to monitor field seismic data, a Mobile Teleclock, an innovative system for transmission of digital time data via telephone line which is simple to use and can be implemented in any country with a very low investment, probabilistic seismic hazard map of India etc. have also been developed by CSIR.

Physical Sciences: CSIR has made remarkable contributions to the areas of Earth Sciences, mapping of hazard zones and hazard mitigation, exploration of mineral and water resources, mining, extraction and beneficiation of various minerals, ocean dynamics and its biogeochemistry and is at present paying considerable attention to the exploration of gas hydrates and hydrocarbons to help meet the energy demands of the country. The notable achievements in this area are: development of indigenous piezo electric accelerometers. The core and strategic sectors are the potential users apart from the other industrial sectors. As part of international space environment services (ISES), CSIR provides space weather information/alerts (solar flares, solar winds, radiations etc.) to the users (ISRO, defence, air service etc.) through its space weather regional warning centres (RWC, India); studies have been carried out on post-seismic deformation in the Andaman & Nicobar Islands. Besides this, some medical instruments for various applications have also been developed and transferred the technology to industries by CSIR.

Information Sciences: Information technology plays a significant role in R&D endeavours in today's cutting edge science and technology. CSIR made for itself a name in information dissemination and science policy related studies. In recent times, 'software development' and IT enabled services have emerged as a niche opportunity for India in the global context and is the fastest segment of Indian industry both in terms of production and exports. CSIR has been playing a major role in protecting the traditional knowledge base of the country, through unique programme on Traditional Knowledge base Protection in which CSIR has digitized the archives of Indian Traditional Knowledge by creating a Traditional Knowledge Digital Library (TKDL); TKDL contains information in 5 international languages. Government of India has recently granted the patent examiners of the United States Patent and Trademark Office (USPTO) access to a new digital database containing a compilation of traditional Indian knowledge. A report 'India S&T 2008' has been brought out for the first time in India which represents several facets of Indian S&T. To increase the accessibility of NISCAIR research journals at national and international level and to increase the visibility, it was proposed to host scientific journals with free access to full text articles

on Open Access Mode. In the area of bio-informatics some very useful web tools have also been developed by CSIR.

CSIR-800: CSIR recognizes that S&T inputs significantly contribute to improve the quality of life of masses. CSIR launched an ambitious and socially relevant programme named 'CSIR-800'. This programme will have an impact on the lives of 800 million Indians and will give the opportunity to small scale enterprises. Some of the recent achievements that can be recognized under the programme are: design and development of Terafil water filters for safe drinking water. Potable Instant Water-filter which serves as a disaster management tool for drinking water supply under flood affected situations, supplementary and complementary foods namely: modified energy foods, fortified wheat flour, fruit and vegetable based snacks, nutra rich bars and fortified beverages for nutrition intensive programme were developed by CSIR. An economically viable, green technology for the production of stevioside from *Stevia rebaudiana* has increased the production and generated employment. Cultivation and processing of aromatic and medicinal plants have opened new opportunities for income generation in rural sector.

New Millennium Indian Technology Leadership Initiative (NMITLI):

NMITLI Programme is being operated in diverse areas of technologies to yield (a) new cutting edge technologies that are globally competitive and/or (b) establish globally new technology paradigms for industry that are sustainable and eco-friendly. Under the scheme two categories of projects, viz. (i) Nationally Evolved projects (NEP), and (ii) Industry Originated Projects (IOP) are developed and supported. Besides, few projects are evolved based on the proof of concept obtained from the earlier/ongoing NMITLI Projects. NMITLI has made some significant progress which include Anti-psoriatic formulation (Phase-III Clinical Trial); Lysostaphin (Phase-II Clinical Trial); Anti-TB molecule (Phase-II Clinical Trial); Development and demonstration of 4 Fuel Cell Prototypes based on different technologies (viz: 1.00 kW based on the Polymer Electrolyte Membrane Fuel Cell Stack, 50W 10-Cells Direct Methanol Fuel Cells Stack, 40W 5-Cells Direct Borohydride Fuel Cells Stack and a 10-Cells Planar Anode-Supported Solid Oxide Fuel Cell Stack); Isolation and evaluation of Promoter probe fungal expression vector and novel promoters using alkaline xylanase as a reporter gene and five novel methanol tolerant species (*Candida hyderabadensis*, *Rhodotorula himalayensis*, *Blastobotrys serpentis*, *Pichia garciniae* and *Pichia cecembensis*); and development of three types of electrically suitable lead free glass powders and pastes for plasma display panel technology; Hand-held Micro PCR platform technology for diagnostic applications and dental implants, etc.

Human Resource Development

In the era of globalization, recognizing the changing context of the scientific enterprise and present national needs, there is need to vigorously foster scientific research in universities and other academic, scientific and engineering institutions, and attract the brightest talent to careers in science and technology, CSIR is contributing significantly to the development of highly qualified personnel in diverse disciplines of S&T in the country. It identifies the budding talents, who have aptitude and aspirations to work for the generation of new knowledge, provide them with opportunities in the field of scientific and industrial research and encourage them by granting fellowships and Awards. Some of the activities are: award of Shanti Swarup Bhatnagar Prizes (SSB) and CSIR Young scientist Awards (YSA); selection of Junior

Research Fellows (JRF) through National Eligibility Test (NET); selection of Senior Research Fellows (SRF), SRF Extended Research Associates (RA), Senior Research Associates (SRA) and Shyama Prasad Mukherjee Fellows (SPMF); funding of Extra Mural Research (EMR) schemes at universities/ R&D organizations; visiting Associateship scheme; travel/ conference/symposium grants; CSIR Programme on Youth for Leadership in Science (CPYLS). In this particular year CSIR has provided support to approximately 8600 Research Fellows/Associates in different branches of Science & Technology and 130 Emeritus Scientists. Recently Government of India has doubled the number of Junior Research Fellowships.

CSIR's Human Resource Development Centre, a central training establishment, has been set up to focus on the need for human resource development of CSIR system. The Centre continues to offer value added skill enhancement programmes. The training and development activities focus on development of skills required for the organization to remain competitive.

Intellectual Property Management: CSIR is spearheading IP movement in the country and is eyeing for top slot in elite group of patent filer worldwide. CSIR has positioned itself from being reactive to proactive IP protection by random patenting to planned patenting and designing patenting portfolios based on business plan with commercial and strategic considerations. As far as number of patent filling is concerned it has filed 175 patents abroad and 159 patents in India during 2009-10. It has portfolio of 2349 patents in India and 3054 patents abroad. Maintaining its rising trend, CSIR has published 4234 research papers in SCI journals with Average Impact Factor per paper (AVIF) as 2.28.

ATOMIC ENERGY

The Department of Atomic Energy (DAE), established on 3 August 1954 is engaged in the development of nuclear power technology, applications of radiation technologies in the fields of agriculture, medicine, industry, and basic research.

- Increasing the share of nuclear power through deployment of indigenous and other proven technologies and also developing fast breeder reactors and thorium reactors with associated fuel cycle facilities;
- Building and operation of research reactors for production of radioisotopes and carrying out radiation technology applications in the field of medicine, agriculture and industry;
- Developing advanced technologies such as accelerators, lasers etc. and encouraging transfer of technology to industry;
- Support to basic research in nuclear energy and related frontier areas of science, interaction with universities and academic institutions, support to R&D projects having a bearing on DAE's programmes and international co-operation in related areas of research; and
- Contribution to national security.

An integrated group of organizations, the Department comprises five research centres, three Industrial Organisations, five Public Sector Undertakings and three Service Organisations. It has two Boards for promoting and funding extramural research in nuclear and allied fields, and mathematics.

It also supports seven institutes of international repute, engaged in research in

basic sciences, astronomy, astrophysics, cancer research, education etc. and a society that provides educational facilities to the children of DAE employees.

Following is the profile of DAE's achievements and activities under its major programmes.

NUCLEAR POWER PROGRAMME

DAE has been pursuing the following 3-stage Nuclear Power Programme :

- The first stage comprises setting up of Pressurised Heavy Water Reactors (PHWRs) and associated fuel cycle facilities. PHWRs use natural uranium as fuel and heavy water as moderator and coolant.
- The second stage envisages setting up of Fast Breeder Reactors (FBRs) backed by reprocessing plants and plutonium-based fuel fabrication plants. Plutonium is produced by irradiation of uranium-238.
- The third stage is based on the thorium-uranium-233 cycle. Uranium-233 is obtained by irradiation of thorium.

The first stage of Nuclear Power Programme is already in commercial domain. The Nuclear Power Corporation of India Ltd. (NPCIL), a public sector undertaking of DAE, is responsible for the design, construction and operation of nuclear power reactors. The company operates 18 reactors raising installed capacity to 4340 MWe. In addition, the company is also engaged in construction of 4 nuclear power reactors (2 PHWRs and 2 Light Water Reactors) totalling 2440 MWe capacity.

The second stage of nuclear power generation programme is geared towards setting up of fast breeder reactors. These reactors produce more fuel than what they consume. The Fast Breeder Programme is in the technology demonstration stage. To gain experience in the second stage, the Indira Gandhi Centre for Atomic Research (IGCAR) has been engaged in the design and development of liquid sodium cooled fast breeder reactors. IGCAR has successfully developed the Fast Breeder Reactor (FBR) technology. The operational experience of FBTR of more than two decades and further technology developments have facilitated the design of a 500 MWe Prototype Fast Breeder Reactor (currently under construction at Kalpakkam). A new public sector undertaking Bharatiya Nabhikiya Vidyut Nigam (BHAVINI) of DAE is implementing this project which is expected to add 500 MWe to the Southern grid by the year 2010-11.

The third stage of the Nuclear Power Programme is in technology development stage. The ongoing development of 300 MWe Advanced Heavy Water Reactor (AHWR) at BARC aims at developing expertise for thorium utilization and demonstrating advanced safety concepts. Thorium-based systems such as AHWR can be set up on commercial scale only after a large capacity based on fast breeder reactors, is built up.

NUCLEAR POWER PROGRAMME : STAGE-I

PRESSURISED HEAVY WATER REACTORS

For the Indian Nuclear Power Programme, that took off in the sixties, PHWR was the reactor of choice for the first stage of the programme. However, to gain operational experience, initially an atomic power station comprising two boiling water reactors (BWR) was set up at Tarapur, Maharashtra. This was a turnkey project of the General Electric of USA. Commissioned in 1969, the station is still in operation.

The first two PHWRs, at Rawatbhata, Rajasthan, started commercial production in 1973 and 1981. The first unit (RAPS-1) was built with the help of the Atomic Energy of Canada Ltd. (AECL). However, the second unit was completed with the indigenous research and development endeavour and the support of the Indian industry. This success followed commissioning of the two 220 MWe reactors at Kalpakkam near Chennai, Tamil Nadu, in the years 1984 and 1986. Later, the design of the 220 MWe PHWR was standardized and two reactors of this design were commissioned at Narora, Uttar Pradesh, in 1991 and 1992.

The design standardisation has markedly reduced gestation period of new reactors. This technology of PHWR reached commercial maturity with the commissioning of two 220 MWe PHWRs at Kakrapar (Gujarat) in 1993 and 1995. In the year 2000, four state-of-the-art 220 MWe PHWRs, two each at Kaiga (Karnataka) and Rawatbhata (Rajasthan) came online. One more 220 MWe PHWR was commissioned at Kaiga in May 2007.

The reactor design of 220 MWe PHWR was successfully scaled up to 540 MWe. Two reactors of this scaled-up design have been successfully commissioned at Tarapur, in the years 2005 and 2006. The gestation period of the reactors has also been reduced drastically.

The growing experience of NPCIL in nuclear technology has resulted in improving performance of its nuclear power plants. It has embarked on the design of 700 MWe PHWRs with the same fissile inventory as the 540 MWe reactors.

The nuclear power generation has risen from 3000 million units in the year 1981-82 to 17016 million units for the calendar year 2009. The electricity generation, since commencement of commercial operation of NPCIL units till end of December 2009 was 3,06,139 Mus.

DAE has an ambitious nuclear power programme that aims at achieving an installed nuclear power capacity of 20,000 MWe by the year 2020, through internal resources and external collaborations.

THE NUCLEAR FUEL CYCLE

The Nuclear Power Programme has a number of ancillary operations which form the Nuclear Fuel Cycle. The Front-End of this Cycle includes mineral exploration, mining and processing of ore, and fuel fabrication. Reprocessing of spent uranium fuel and management of nuclear waste form part of the Back-End of the Cycle.

India has acquired comprehensive capability in PHWR design, construction and operation of associated plants/facilities covering the entire nuclear fuel cycle of the nuclear power programme based on pressurized heavy water reactors. This includes production of heavy water that is used as moderator and coolant in PHWR.

The DAE organizations contributing to the Front-End of the Nuclear Fuel Cycle Programme are the Atomic Minerals Directorate for Research and Exploration (AMD), Hyderabad; Uranium Corporation of India Ltd. (UCIL), Jaduguda (Jharkhand); Nuclear Fuel Complex (NFC), Hyderabad; and Heavy Water Board (HWB), Mumbai. BARC and IGCAR administer the Back End of the Cycle.

Front End Fuel Cycle

The operations under the Front-End Fuel Cycle range from mining, milling and processing of ore, and fabrication of fuel. In addition, heavy water production is also an ancillary programme to the DAE's PHWR programme.

Survey and Exploration

The Atomic Minerals Directorate for Exploration and Research (AMD) is engaged in survey, exploration and evaluation of resources of uranium, thorium, niobium, tantalum, beryllium, zirconium, lithium, yttrium and rare earth elements required for the indigenous atomic energy programme of the country. The geological studies related to the selection of nuclear power plant sites and repositories for the disposal of nuclear wastes are carried out by AMD in collaboration with the Nuclear Power Corporation of India Ltd. (NPCIL).

Survey and exploration for atomic minerals had commenced in 1949. Over the years, uranium deposits have been located at Jaduguda, Bhatin, Narwapahar, Turamdih (East and South), Banduhuran (Turamdih West), Central Keruadungri, Bagjata, Kanyaluka, Mohuldih and Nandup in Jharkhand; Domiasiat and Wahkyn in Meghalaya; Lambapur-Peddagattu, Koppunuru and Tummalapalle in Andhra Pradesh; Gogi in Karnataka and Rohil in Rajasthan.

Certain Proterozoic basins, which are the prime targets for unconformity-related high-grade uranium deposits are Andhra Pradesh; Delhi basin (fold belt) in Rajasthan; Bhima and Kaladgi-Badami basins in Karnataka; Indravati and Abujmar basins in Chhattisgarh; and Gwalior basin in Madhya Pradesh.

The Mesozoic and Tertiary basins, which are the targets for large tonnage sandstone type of uranium deposits under exploration, are the Mesozoic Mahadek basin in Meghalaya and Gondwana basin in Madhya Pradesh as well as the Upper Tertiary Siwalik basin in Himachal Pradesh. AMD has also stockpiled adequate resources of columbite-tantalite (niobium and tantalum mineral).

A number of beach sand deposits, containing ilmenite, rutile and leucosene (titanium), zircon (zirconium), monazite (thorium and LREE), sillimanite and garnet have also been established in the East and West coasts in parts of Orissa, Andhra Pradesh, Tamil Nadu, Kerala, and Maharashtra, as well as in the inland Teri sand of Tamil Nadu and riverine places of Bihar and West Bengal. At Brahmagiri, Puri district, Orissa, a deposit containing 120 million tonnes of heavy mineral resources has been established. This is the largest single deposit of heavy mineral resources in the country. Besides, heavy mineral resources have also been identified at Narsapur, West Godavari district, Amlapuram, East Godavari district, Andhra Pradesh; Vayakallur-Tutto, Kanyakumari district, Tamil Nadu; and Thotatapalli - Alappuzha, Kollam and Alappuzha districts, Kerala.

Mining and Ore Processing

The exploratory efforts of AMD, made earlier, had led to the opening of four underground uranium mines at Jaduguda, Bhatin, Narwapahar and Turamdih all in Singbhum (East), Jharkhand state. A new open cast mine was also commissioned at Banduhurang in Singbhum in 2007. These mines, being operated by the Uranium Corporation of India Ltd. (UCIL), a public sector undertaking of DAE, have been meeting the needs of the Indian Nuclear Power Programme.

To meet the projected demand of the nuclear power programme, UCIL has taken up the work to develop mines at Bagjata (in Jharkhand), Lambapur (Andhra Pradesh) and Domiasiat (Meghalaya). Efforts are being made for exploiting other secondary resources.

UCIL also operates a uranium mill for processing of the uranium ores to produce yellow cake which is further sent to NFC for fuel fabrication. In addition, magnetite present in the uranium ore is recovered as a by-product in the uranium process plant.

The research and development in the field of ore processing and uranium metal production is done at Trombay. An uranium metal production facility for production of uranium ingot operates at Trombay.

Nuclear Fuel Fabrication

Nuclear fuel fabrication for power reactors and research reactors is done respectively at the Nuclear Fuel Complex, Hyderabad, and BARC. In the development of new fuels, BARC and IGCAR are engaged.

The Indian PHWR uses natural uranium-based fuel. A major milestone was achieved with the fabrication of the first fuel element at Trombay in 1959.

For industrial scale manufacture of nuclear fuel assemblies and zircaloy structural components for power reactors, the Nuclear Fuel Complex (NFC) was set up in Hyderabad in 1971. NFC, now an ISO 9001 organisation, manufactures zircaloy-4 clad natural and depleted uranium oxide and thoria bundles for pressurised heavy water reactors, zircaloy-2 clad enriched uranium oxide fuels for boiling water reactors and stainless steel clad thoria and depleted uranium oxide blanket sub-assemblies for liquid metal-cooled fast breeder reactor. NFC also manufactures zirconium alloy structural components for the above reactors. In addition, NFC produces seamless stainless tubes, hexcans and other structurals for fast reactor core assemblies and special alloy tubes. It also caters to the demand of high quality stainless steel tubes and pipes for critical and strategic applications in nuclear power plants and re-processing plants in atomic energy.

The plants of NFC have been performing very well meeting their annual production targets consecutively for the last six years and some of the plants have even crossed their plant capacities.

At BARC a wide variety of fuels have been developed and fabricated on industrial scale for fabrication of indigenous mixed oxide (MOX) fuel assemblies for boiling water reactors at TAPS.

BARC has set up the Advanced Fuel Fabrication Facility (AFFF) at Tarapur. The MOX fuel produced here has given satisfactory performance.

Construction of a Zirconium Oxide Plant for enhancing the production capacity of zirconium oxide powder is under way.

Titanium half alloy hydraulic tubes are critical components in Light Combat Aircraft. The first batch of these tubes has been produced by NFC for the Aeronautical Development Authority. This development is considered to have a huge economic potential.

Heavy Water Production and Upgrading

The Heavy Water Board (HWB) of DAE is responsible for building and operating heavy water plants in the country. The Board has seven heavy water plants in the country. Besides meeting domestic needs of heavy water, the board has also exported heavy water. In November 2006, the Board executed the seventh export order of 13 MT of heavy water to South Korea besides entering into a contract with US for the supply of 4400 kg of nuclear grade heavy water.

Recognizing the efforts put in by the Board in the field of energy conservation and energy management, the Bureau of Energy Efficiency of the Ministry of Power, assigned to the Board a lead role to carry out energy management and conservation for fertilizer, petroleum and chlor alkali sector industries to achieve the national goal of energy conservation.

Through continuing research, BARC had developed heavy water upgrading technology for use on commercial scale. Based on this technology, at present 23 upgrading final enrichment towers are in operation at various sites and some are under construction.

Back-End of Nuclear Fuel Cycle

The Back-End of the Nuclear Fuel Cycle comprises fuel reprocessing and nuclear waste management. A super critical fluid Extraction technique was demonstrated for the recovery of plutonium present in the cellulosic waste matrix using carbon dioxide modified with Concentrated PO.

Fuel Reprocessing

The Indian nuclear power generation programme is based on closed-cycle approach that involves reprocessing of spent fuel and recycle of Plutonium and Uranium-233 for power generation.

From the inception of its nuclear power programme, DAE had commenced development of fuel reprocessing technology. It has a Pilot Plant for fuel reprocessing at Trombay and industrial scale plants at Tarapur and Kalpakkam. The plant at Trombay processes spent fuel from research reactors while the other two plants process spent fuel from power reactors.

Nuclear Waste Management

The radioactive wastes generated at various stages of nuclear fuel cycle are categorised as low, intermediate and high level wastes. The plants for management of all types of radioactive wastes have been in operation at many nuclear facilities.

The high level wastes, generated in very small quantities, are fixed in a glass matrix. Vitrification, a complex technology possessed by a few nations only, has been successfully developed at Trombay. Based on this technology, two Waste Immobilisation Plants (WIPs) have been operating at Tarapur and Trombay. A facility for the immobilisation of waste in a cement matrix has been commissioned at Kalpakkam. BARC has constructed an Advanced Vitrification System at Tarapur for high level waste immobilisation based on Joule Melter Technology. India has become one of the six countries who have developed the Joule Heated Ceramic Mixer (JHCM) and set up such facilities for vitrification of high level waste.

Vitrified waste is stored in a specially designed Solid Storage Surveillance Facility (SSSF) for about 30 years prior to its disposal in deep geological formation. The first such facility has been in operation at Tarapur since 1999.

R&D Support to Nuclear Power

The programmes relating to nuclear power and the nuclear fuel cycle have been built on the multidisciplinary R&D infrastructure of the Department. The research and development relating to PHWR programme encompasses practically all the aspects of design, manufacture, construction, commissioning, operation and maintenance of power plants. Thrust on indigenisation of equipment and components has led to the development of technologies for operation and maintenance of power reactors. The

technologies that emerged from the research and development include automation, monitoring, inspection, and repair systems, equipment and gadgets. Special Purpose Machines have been designed, developed and successfully used for carrying out *in situ* precision machining and cutting operations for the upgradation/maintenance of reactors. A number of state-of-the-art instrumentation and control systems for reactors and heavy water plants have been developed at BARC and IGCAR.

The R&D efforts are focused on reducing the unit energy cost through improving plant efficiency as well as plant availability factors, decreasing the project gestation period and improving plant safety. R&D has contributed immensely to plant life management. The strong R&D base has led to a number of successes notably repair of over pressure relief device of RAPS-1, en-masse removal and replacement of coolant channels of RAPS-2; Management of Calandria inlet manifold, End-shield repair; Steam generator hair-pin removal, Development of BARCIS system for in-service inspection of coolant channels, and System to relocate garter springs in coolant channels. A number of new technologies, such as servo-manipulators, image processing based alignment system, and others have been developed. From KAPS-2 onwards, improved coolant channel material and modified channel design have been adopted for longer life of coolant channels.

At BARC, Liquid Zone Control System (LZCS) in the 540 MWe PhWR consisting of six Liquid Zone Control Assemblies containing fourteen Zone Control Compartments (ZCCs), associated equipment for circulation of liquid absorber and inert cover gas in the ZCC's and measuring and control devices were designed and installed. Micro computer based Fault tolerant real time Process Control System has been designed and delivered for 540 MWe TAPP-3&4.

Robotics is one of the major thrust areas of the R&D programmes at BARC and IGCAR. A five-degree-of-freedom Robot, for deployment in radioactive chemical laboratories, a six-degree-of-freedom Robot and a mobile Robot have been developed at Trombay. At IGCAR, for automation of non-destructive evaluation, various devices have been developed. These include a Mobile Scanner (MOBSCAN), a Remotely Operated Power Manipulator (ROPMAN), and a Robot for capping and decapping bottles.

Various pieces of equipment developed by BARC helped in improving the safe operating life of coolant channels from seven to more than nine effective full power years.

The 2 MW in-pile loop in Dhruva Reactor installed for nuclear fuel studies is a major achievement. A Remotely Operated Hydraulic Trolley & Manipulator (ROHYTAM) developed for handling of nuclear power plant emergencies, successfully completed its test run. To meet the quality needs of the nuclear programme, several non-destructive testing techniques and equipment have been developed by BARC and IGCAR.

DAE has been promoting technology relating to quality assurance. Over a period, this approach has paid dividends to the nation by upgrading the quality levels of the Indian industry.

Electronics & Instrumentation

To meet the hi-tech instrumentation needs of the nuclear technology, a strong R&D base was created in electronics and instrumentation, first at TIFR and later at BARC.

The know-how and the products developed at Trombay in the area of electronics have led to the setting up of the Electronics Corporation of India Ltd. (ECIL) at Hyderabad in 1967. The company pioneered the electronics and computer revolution in India. During seventies and eighties, ECIL led the television revolution in the country by bringing out indigenous black & white and colour television sets and also rural rebroadcast systems.

ECIL is now a multi-product and multi-disciplinary organisation providing key technology inputs, system integration and system solutions in the areas of information technology, strategic electronics, communications, control and automation, instrumentation and components.

ECIL, through its software expertise, has contributed to automation in the banking sector, control room and dial-100 automation for the police, message switching systems for defence and telecom sectors, management information systems for the ports, municipal corporations and market yards and others. The company has provided countrywide SPC telex networks, message switching network and maintenance systems for telephone exchanges, and contributed to the technology solutions, in the areas of command, control, communications, computers and information/intelligence systems. Nuclear and thermal power plants, steel plants and process industries are equipped with ECIL's control systems developed through in-house R&D.

The DAE research centres are also engaged in the development of sophisticated electronic systems, instruments and components for the nuclear power programme and various other applications.

NUCLEAR POWER PROGRAMME - STAGE : II

FAST REACTOR PROGRAMME

The second stage of nuclear power generation envisages setting up of fast breeder reactors (FBRs) backed by reprocessing plants and plutonium-based fuel fabrication plants. These fast breeder systems produce more fuel than what they consume. FBRs can increase fuel utilisation by about sixty times of what is possible with PHWRs.

IGCAR started the breeder programme with the setting up of a Fast Breeder Test Reactor (FBTR) at Kalpakkam, Tamil Nadu in October 1985. This reactor, operating with indigenously developed mixed uranium-plutonium carbide fuel has achieved its technology objectives.

The reactor operated at a power level of 17.4 MWt and the turbo-generator was connected to the grid, feeding 1.8 million units of electricity. The fuel has reached a burn up of 1,55,000 megawatt day per tonne (MWd/t), that is more than four times the originally designed value.

Based on the experience gained with the FBTR, the Bharatiya Nabhikiya Vidyut Nigam Ltd. (BHAVINI - formed in October 2003) is constructing a 500 megawatt (e) Prototype Fast Breeder Reactor (PFBR) at Kalpakkam, Tamil Nadu. It is a pool type reactor using a mixed oxide of uranium and plutonium as fuel, the design and technology of which were developed at IGCAR. The PFBR was expected to go critical in September 2010. The FBR programme is poised to enhance the electricity potential in India through available uranium-metal resources by a factor of about 100.

The thrust of the R&D programme at IGCAR is oriented towards the design validation of PFBR in the first instance, and subsequently, the design optimisation for future FBRs, to reduce the cost.

Fast Reactor Fuel Fabrication

The Mark-I mixed carbide fuel core, with high plutonium content, has been developed for the first time in the world.

Fabrication of Mark-II core is progressing at Trombay. A number of PFBR MOX fuel elements for making experimental PFBR subassembly, for irradiation in FBTR, have been fabricated by BARC.

Fast Reactor Fuel Reprocessing

For reprocessing of FBTR fuel, the lead Mini Cell, henceforth known as Compact Reprocessing facility for Advanced fuels in Lead cells (CORAL) has been commissioned at Kalpakkam. It is aimed at establishing the fast reactor reprocessing process flow sheet. For reprocessing of fuel from fast breeders, IGCAR is setting up the Fast Reactor Fuel Reprocessing Plant (FRFRP). A comprehensive procedure has also been evolved at the Centre for the recovery of uranium and plutonium and separation of the radioactive fission products from the spent fuel solutions.

Fast Reactor Technology Development

Under the technology development programme, IGCAR is pursuing engineering-related research and development such as thermal hydraulic and structural mechanics studies, development of components such as control and safety rod drive mechanism and various test facilities such as Sodium Water Reaction Test Facility and Steam Generator Test Facility.

NUCLEAR POWER PROGRAMME-STAGE-III

THORIUM BASED REACTORS

Thorium utilisation is the long term core objective of the Indian Nuclear Power Programme for providing energy security for the country on a sustainable basis. The third stage of the Indian Nuclear Power Programme is based on the thorium-uranium-233 cycle.

A beginning has already been made by introducing thorium, in a limited way, in research reactors and in pressurised heavy water reactors.

The research reactor KAMINI operating up to a nominal power of 30kW for neutron radiography of various materials, at Kalpakkam, uses uranium-233 fuel derived from thorium. This fuel is bred, reprocessed and fabricated indigenously.

BARC is engaged in developing 300MWe advanced Heavy Water Reactor (AHWR). This endeavour aims at developing expertise for thorium utilization and demonstrating advanced safety concepts. Its reactor physics design is tuned to generate about 75% power from thorium. Being a first of its kind in the world, the AHWR design is being subjected to a rigorous peer review so as to optimize and validate it.

Mixed Thoria-Urania and Thoria-Plutonia are the candidate fuels for the AHWR. The fuel pellets have been successfully fabricated by the conventional power metallurgy route. The design of this reactor incorporates several advanced safety

features. The overall physics design including core configuration has been completed. A critical facility for validation of physics calculation pertaining to AHWR core design is being set up at BARC.

Design and development of a high temperature reactor system including Compact High Temperature Reactor, Nuclear Power Pack and High Temperature Reactor for Hydrogen Generation, mainly for process heat and non-grid based electricity generation applications, are also continuing at Trombay. A Compact High Temperature Reactor (CHTR), with 100kW thermal power rating, being developed here, will be used for electricity generation in remote places, production of alternative transportation fuel such as hydrogen, and refinement of low-grade coal etc.

For breeding fissile uranium-233 from thorium, development of Accelerator Driven Sub-Critical Systems (ADS) for nuclear reactor is the latest addition to the Indian nuclear programme. ADS can provide a strong technology base for large-scale thorium utilization. This endeavour offers promise of incineration of long-lived actinides and fission products, thereby reducing the technical complexities of storage of long-life high-level radioactive wastes. As a first step towards realization of ADS, DAE has launched development of proton injector. To carry out experimental studies on sub-critical assemblies, a 14 MeV neutron generator has also been upgraded with a higher current ion source.

For the separation of uranium-233 from irradiated thorium fuel on a plant scale, a uranium-thorium Separation Facility is in operation at Trombay.

SAFETY & ENVIRONMENT

The safety operations through the entire nuclear fuel cycle, from prospecting and mining of ores to management of waste, encompass all the aspects of safety, viz. radiological safety, industrial safety, occupational health, fire safety and environmental protection.

In all the nuclear installations, care is taken to protect operating personnel, public and the environment. An independent body, the Atomic Energy Regulatory Board (AFRB) monitors safety. The safety standards formulated by AREB are on par with those recommended by the international organisations such as the International Atomic Energy Agency (IAEA) and the International Commission on Radiological Protection (ICRP).

NPCIL is a member of the World Association of Nuclear Operators (WANO). The Association has conducted peer reviews of the atomic power stations at Kakrapar and Narora. Also, from time to time, Indian experts have participated in peer reviews in a number of countries including USA, Japan and South Korea. As a result of consistent efforts, the nuclear power plants have achieved about 260 reactor years of safe operation.

Safety surveillance inspections are regularly carried out and comprehensive Emergency Preparedness and Response Plans to handle postulated emergency scenarios are in action at the DAE facilities.

BARC and the laboratories accredited by it conduct countrywide personnel monitoring in about 3000 industrial, medical, research and DAE organisations which benefit over 30,000 radiation workers annually.

Environmental radiation monitoring and environmental surveillance are the regular features of the environmental protection programme of DAE.

At different sites, the Environment Survey Labs (ESLs) of BARC continuously monitor environment, and collect site-related meteorological data. Sophisticated weather monitoring SODAR systems are operational at Kaiga, Kalpakkam, Tarapur and Trombay.

IREMON, a nationwide network of environmental radiation monitoring stations detects radiation releases. Interfaced with global positioning system, a Compact Aerial Radiation Monitoring System (CARMS) for estimation of large area contamination using unmanned aerial vehicle, is also in operation at Trombay.

DAE is committed to not only preserving the environment but also to its further enrichment. All the operating nuclear power plants and heavy water plants now have the ISO environment certificate.

To educate the public living around nuclear power plants, public awareness programmes by DAE organisations are organised on a regular basis.

Environment Friendly Technologies

DAE is a pioneer in conducting comprehensive thermal ecology studies in India. The flue gas conditioning technology developed by Heavy Water Board is now helping to reduce fly ash emission from thermal boilers.

The Nisarga-Runa technology developed at BARC converts biodegradable solid waste into useful manure and methane. A number of such plants have been set up at various places.

The Sewage Sludge Hygienisation plant (SHRI) at Vadodara continues to provide dried hygienised sludge for use by farmers.

The hygienised sludge being pathogen free can be beneficially used as manure in the agricultural fields as it is rich in nutrients required for the soil. Further, it can also be used as a medium for growing soil-useful bacteria like rhizobium and azetobactor to produce enriched manure that can be used to enhance the crop yields. Large scale field trials of utilizing radiation processed municipal sewage sludge in the agricultural fields have been conducted under the supervision of Krishi Vigyan Kendra (KVK, Vadodara). The trials conducted showed increase in the yields of many agricultural crops.

RADIATION TECHNOLOGIES & APPLICATIONS

DAE's programme relating to radiation technologies and application covers building and operation of research reactors for production of radioisotopes, and other sources of radiation such as accelerators and lasers, and developing and deploying radiation technology applications in the field of medicine, agriculture and industry.

Research Reactors

The research reactor programme of DAE provided research and development support to the nuclear power programme, produces radioisotopes for use in health care, agriculture, industry and research, and provides manpower training.

The research reactors set up by DAE so far, have been Apsara (1mW, Fuel: Enriched Uranium-Aluminium alloy), CIRUS (40MW, Fuel: Natural uranium), Zerlina (zero energy, Natural Uranium), Purnima I-III (Fuel: Plutonium/Uranium-233), Dhruva (100 MW, Fuel: Natural Uranium) at Trombay (Maharashtra), and Kamini (30kW, Fuel : Uranium-233-A1 alloy) and Fast Breeder Test Reactor (40MW, Fuel :

Uranium-Plutonium carbide) at Kalpakkam (Tamil Nadu). Of the research reactors, Zerlina was decommissioned in 1984, and Purnima series made way for Kamini.

Dhruva, CIRUS and Apsara are used for producing radioisotopes besides their use in research and development relating to nuclear technologies and materials, applied and basic research, and training. KAMINI is used mainly for radiography of various materials, and FBTR is the test bed for the development of fuel, blanket and structural materials for fast breeder reactor programme.

The new ventures include the development of a Critical Facility at Trombay for reactor physics experiments relating to AHWR and 540 MWe PHWR, and a pool type 200MWt Multi Purpose Research Reactor.

Radioisotope Production & Processing

India is a leading producer of radioisotopes in the world. Radioisotopes are produced in the research reactors at Trombay, atomic power reactors at various places in the country, and cyclotron at Kolkata.

The radioisotopes produced at Trombay and at the nuclear power stations, are processed by BRIT. These products include radiopharmaceuticals, labelled compounds, radiochemicals, radiobiomolecules, radiosources and a number of devices using radioisotopes.

The radioisotope-based products and services are now commercially available through BRIT.

Applications of Radioisotopes

The radioisotopes produced at Trombay find wide applications in the fields of agriculture and food, medicine and health care, industry, and research. Based on these applications, the following programmes have been established.

Nuclear Agriculture

The Nuclear Agriculture Programme of DAE focuses on the use of radiation technology for the development of high yielding crop seeds, radiation processing of food items, fertilizer and pesticide-related studies, and other areas. These technologies are benefiting Indian farmers and traders.

Crop Improvement

BARC, in collaboration with agricultural universities, has been engaged in research and development in the field of crop improvement. The Centre has successfully developed several high yielding crop varieties. Of these 29 varieties have been notified and released for commercial cultivation by the Ministry of Agriculture, Government of India. These include 12 groundnut, 11 pulses, 2 mustard varieties, 2 soybean varieties and one each variety of jute and rice.

BARC has successfully developed green manure crop - *Sesbania rostrata* that is proving highly cost-effective for small farmers. A tissue culture-based protocol for rapid multiplication of some commercial cultivars of banana has been developed here. This technology has been transferred to the Maharashtra State Seeds Corporation.

Using micro-propagation technology, BARC has standardised large-scale multiplication of pineapple. Micro propagation protocol has also been standardized in three varieties of sugarcane. The Centre has made good progress in developing hardened plants for *Acacia Victoriae* - a plant suitable for desert area. Here, several

insect pheromones have also been synthesized and techniques for determination of nutrients in soils have been developed.

For wider deployment of the technologies developed by its organisations, DAE has set up an interface with Ministry of Agriculture.

Food processing

The Department has set up plants for demonstration of high and low dose applications of radiation. These are Radiation Processing Plant set up by BRIT at Navi Mumbai for high dose radiation processing of spices, and KRUSHAK (Krushu Utpadan Sanrakshan Kendra), set up by BARC at Lasalgaon near Nashik, for low dose applications of radiation for food preservation. This plant processes onion, pulses, rawa and turmeric.

The Government of India has approved radiation processing of certain food items both for export and domestic consumption.

The Radiation Processing Plant at Vashi processed more than 1500 MT of spices and other allied products.

The major thrust given to the area of setting up of new radiation processing plants for medical, food-related and allied products, has shown very encouraging results. Considerable progress has been achieved in the setting up of radiation processing plants in private sector. The first radiation processing plant in private sector by M/s. Organic Green Foods Ltd. is operating in Kolkata. Three Gamma Processing Plants have been completed in Sonapat (Haryana), Ambernath (Maharashtra) and Vadodara (Gujarat). Apart from supplying the Cobalt-60 sources for the new plants, BRIT provides requisite technical guidance and facilitation services (from conception to commissioning stage) to enable the entrepreneurs to commission the plants in a time-bound manner. Recently, four more private agencies have signed MOU with BRIT for setting up gamma irradiation plants in different parts of the country.

Research at BARC is focused on radiation processing for preservation of cereals and pulses, fruits and vegetables, meat and meat products and seafood. In meat preservation, a process for preparation of shelf-stable intermediate moisture meat products using gamma radiation has been standardized. The effect of the combinations of radiation, packaging, and low temperatures, extension of shelf-life of a number of fruits and vegetables and coffee beans, are under extensive study.

Nuclear Medicine and Health care

Radioisotopes and their formulations find wide applications in diagnosis, therapy and health care. BARC and BRIT are the main centres of this activity.

At BARC, Cesium-137 based brachy therapy sources are routinely produced. For treatment of cancer of eye, radiation sources of the size of rice grain, containing 2-3 milli curie of Iodine-125, have been produced here. This miniature source was tried for the first time for treatment of eye cancer at Sankara Netralaya, Chennai. Another salient development here is the digital medical imaging system based on a Charge Coupled Device (CCD).

BARC has successfully developed radiation-processed hydrogel for treating burns, wounds and leprosy; Holmium-166-Hydroxy Apatite (HoHa) and Samarium-153-Hydroxy Apatite (SmHa) radiopharmaceuticals for treatment of arthritis, and radiolabelling of phosphonates with Luthinium-177 for internalised radiotherapy.

Tuberculosis is a major health problem in India. For detection of the disease infection, BARC developed a sero-diagnostic test-kit with X-ray imaging using a three dimensional cone-beam tomography which is another important development.

BARC's Radiation Medicine Centre (RMC) in Mumbai is involved in research and development in nuclear medicine and allied sciences. The centre offers diagnostic and therapeutic services using radioisotopes, and promotes human resource development in nuclear medicine. It is a regional referral centre of the World Health Organisation, and the International Atomic Energy Agency (IAEA).

Radioimmunoassays (RIA) and related procedures are used for the measurements of hormones, enzymes, certain serum proteins, and others. RMC is a major provider of RIA services in the country, to thyroid patients. This centre annually dispenses of 90,000mCi of Technetium based radiopharmaceuticals, and annually carries out 8000 radiodiagnostic investigations and 9000 radioimmunoassays.

For the radiodiagnosis needs in the eastern part of the country, the Regional Radiation Medicine Centre (RRMC) of VECC is operating at Kolkata. The Centre carries out nuclear imaging and hormone estimations.

BRIT processes and formulates radioisotopes produced in the research reactors Dhruva and Apsara at Trombay and also in the power reactors of NPCIL. These products are supplied to nearly 2000 institutions in the country for applications in agriculture, health care, and supporting research in life sciences and bio sciences. BRIT also manufactures radiation technology based equipment, and provides radiation processing services to medical sector.

Annually, BRIT supplies over 43,000 consignments of radioisotopes and allied products, and over 45,000 cold kits for formulation of ^{99m}Tc (Technetium) radiopharmaceuticals, and ^{99}Mo and ^{131}I to nuclear medicine centres and cancer hospitals all over the country. With the help of these radiopharmaceutical products and cold kits, over 3 lakh diagnostic imaging studies are performed annually, and a number of patients are treated for thyroid disorders and thyroid cancer. BRIT is working on the development of Samarium ^{32}P Phosphate colloid injection for the treatment of the disease of joints. With this development, a long-felt need of the medical community for an inexpensive alternative to bone palliation agents will be fulfilled. A new automated remote liquid dispensing system for dispensing radioactive consignments into vials has been developed and deployed in the ^{99}Mo production plant. Supply of Cs-137 Manual After-Loading Applicators was resumed for the benefit of cancer patients in the country, particularly, those suffering from the cancer of the cervix. Technology for the production of Hydrogel Burn & Injury dressings was transferred to a private sector firm in Hyderabad which is going to launch the product in a big way.

Radioimmunoassay (RIA) is a versatile *in vitro* technique for the measurement of hormones, vitamins, drugs and other substances present in biological fluids. Another technique known as immuno-radiometric assay (IRMA) is also used for such estimations.

Nearly 10,000 RIA/IRMA kits of different hormones are supplied to about 650 RIA centres in the country. The newly developed T3/T4 magnetic particle based RIA kits have been introduced in the market for thyroid hormone investigations. About 5 lakh patient sample analyses are carried out every year using these radioimmunoassay kits.

The RIA Centres of BRIT at Bangalore and Dibrugarh conduct 6000 and

5000 radioimmunoassays annually. BRIT's regional centres at Bangalore and Delhi process ready-to-use Technetium-99m radiopharmaceuticals for use in hospitals in their regions.

Labelled compounds are versatile tools for research and tracers. Important labelled compounds supplied by BRIT include phosphorus-32 and Phosphorus-33 labelled nucleotides, Sulphur-35 labelled amino acids, Carbon-14 labelled compounds, Tritium labelled compounds, and others, and cold kits for biological research/non-radioactive labelling.

BRIT's biomolecule producing laboratory Jonaki at Hyderabad supplies over a dozen labelled nucleotides and molecular biology kits to user institutions across the country on a regular basis.

BRIT produces and supplies sealed radiation sources of Cobalt-60 and Iridium-192 to a number of radiotherapy centres in the country, for cancer treatment.

To provide a low cost alternative teletherapy unit for the expensive imported teletherapy unit, a Cobalt-50 Teletherapy Machine has been developed at BARC. The first unit of Bhabhatron installed at Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Navi Mumbai is used regularly for treating cancer patients. An improved model of the Bhabhatron has been installed in a Red Cross Hospital in Nellore, Andhra Pradesh.

Radiation Sterilization of Medical Products

BRIT has been operating radiation sterilization plant ISOMED, now ISO-9002 accredited, at Trombay. The plant provides radiation sterilization services to several users. This plant processes more than 14000 cubic metres of medical products annually.

Over two million Dai (midwifery) kits and delivery packs were radiation sterilized at ISOMED, and distributed for use in rural areas for preventing infection of mothers and helping to minimize infant mortality rate, through rural health programmes funded by WHO. The International Institute of Population Studies, Mumbai, in its study has found that the infant mortality rate has fallen by 25-30% in Rajasthan, Madhya Pradesh, Maharashtra and Uttar Pradesh, as a result of distribution of the kits in these areas.

Similar to ISOMED, plants are also in operation at the Shriram Centre for Industrial Research, Delhi and Kidwai Memorial Institute of Oncology, Bangalore. A plant for R&D purposes has been in operation at the Defence Research and Development Organisation, Jodhpur, Rajasthan.

Radiation Processing Plants in the Private Sector

With a new gamma irradiation plant in the private sector having been commissioned in Bangalore under the technical guidance facilitation services provided by BRIT there are now five such plants operating. Seven MoUs have been entered into with private agencies for setting up such plants.

Industrial applications of Radioisotopes

The studies conducted by BARC have immensely contributed to the detection and recharge conditions of ground water bodies. Some of these include evaluation of the groundwater recharge conditions in the Delang-Puri sector of coastal Orissa, determination of the origin of thermal waters in the geothermal areas in Madhya

Pradesh, Uttar Pradesh and Himalayas, and establishment of the ancient course of the legendary 'Saraswati' river in Western Rajasthan.

Major activities relating to hydrology cover evaluation of recharge measures at coastal fresh groundwater system of Thiruvadanai, Tamil Nadu, sustainability of deep groundwaters at Kuttanad, Kerala, detection of fluoride contamination in groundwaters of Karnataka, solution of leakage/seepage problems of a few dams in Kerala and Rajasthan; origin of groundwater along paleo channels in Jaisalmer district, Western Rajasthan, and seepage and source of salinity in the Indira Gandhi Nahar Pariyojana Command Area, Hanumangarh, Rajasthan.

The studies conducted by BARC on sediment transport at almost all the major ports have resulted in increasing the intervals between desilting campaigns, which saved huge cost of desilting operations. Studies on bed load transport at Kolkata and Karwar ports have helped in port-expansion programmes. A nucleonic suspended sediment concentration gauge developed at Trombay has proved to be a useful tool of the dredging operation in ports.

Using radioisotope tracer techniques, a major study on the dilution and dispersion of the sewage disposed of into sea at the Colaba outfall in Mumbai, was conducted by BARC.

BARC's expertise in gamma scanning is being used by the major petrochemical industries for troubleshooting in process equipment, detecting leaks in buried pipelines, industrial process controls etc. Other noteworthy studies carried out by BARC include detection of leakage points in 350 km long natural gas pipeline of the Gas Authority of India, and gamma scanning of distillation and degasser columns for Mumbai and Baroda based companies.

Using radiotracing techniques, leaks in the heat exchangers of the Indian Oil Corporation's Panipat Refinery, Haryana and Tamil Nadu Petroproducts Ltd. Chennai, Tamil Nadu were detected. These techniques were also used in the effective management of the oil fields of the Oil and Natural Gas Commission.

BARC's radiotracing expertise is being used by the industrial units in many diverse ways. Gamma scanning is an indispensable non-destructive technique for solving online problems in industrial process columns. Using this technique, BARC has successfully conducted investigations on a depropaniser column of the Reliance Industries Ltd., Hazira, Gujarat, and carried out shielding integrity tests for different DAE facilities.

Gamma scanning technology developed at Trombay is used for trouble shooting and process optimization in a number of process industries in the country. This has resulted in minimizing production losses, which could be of the order of several crores of rupees per day for such big units.

Automated Gamma scanning system is developed for on-line inspection, troubleshooting and process optimization of industrial process plants, Petrochemical/Oil refineries, Heavy Water plants etc. The technique utilizes scanning of process columns up to 70-metres height.

Radiochemicals are used as tracers for studying mechanisms of chemical reactions, leakage and flow rate measurements in pipelines and sediment studies. BRIT produces a number of radiochemicals to facilitate such studies.

The radiation technology equipment manufactured by BRIT for use in industry

include radiography camera for ascertaining internal defects of welding, casting etc., Gamma chamber, a compact self-shielded Cobalt-60 research irradiator for irradiating samples, and Blood Irradiator for radiation processing of blood and blood products by gamma rays to eliminate the risk of post transfusion graft versus host disease.

BRIT has helped ONGC in its soil exploration efforts by supplying ^{14}C -ammonium thiocyanate (500 mCi) and Tritiated Water (75 Ci).

NDT centres are the major beneficiaries of BRIT which is the sole supplier of Ir-192 radiography sources in the country. Sealed sources are fabricated, processed and supplied for various industrial applications. BRIT also exported 60 Co source pencils to Vietnam.

A large number of Radiography Cameras and Gamma Chambers manufactured by BRIT are already in the use of Indian Industry. Blood irradiator developed at BRIT is used in hospitals and blood banks. Such units have also been installed at the regional centres of BRIT in Bangalore and Delhi.

BRIT processes Cobalt-60 at RAPP COF, Kota, Rajasthan, and manufactures radioisotope based equipment for industrial and other applications. For radiography examination of industrial products, it supplies Iridium-192 sealed sources and remotely operated radiography cameras (ROLI-1).

The Board also exports radioisotopes and related equipment to countries such as United Kingdom, Germany, Bangladesh, Egypt, Myanmar, Nepal, Sri Lanka, Syria and Tanzania.

Beam Technologies

Laser systems and Electron Beam Accelerators are the areas where India is one of the front runners. The DAE's research organisations, viz. Raja Ramanna Centre for Advanced Technology (RRCAT) in Indore, Madhya Pradesh and Bhabha Atomic Research Centre (BARC) in Mumbai, are engaged in the development of applications in the areas of Laser systems, Electron Beam processes and devices, and Plasma devices.

Currently a number of equipment based on electron beam technologies are being developed. BARC is working with major cable manufactures to indigenously develop electron beam cross linked cables. In collaboration with Sriram Institute of Chemical Research, New Delhi, BARC developed a special formulation of PVC based material which on radiation cross-linking, leads to a product that can withstand temperature upto 105 deg. Celsius. To induce uniform crosslinking, a rotating multispindle conveyor system was designed at Trombay. The process has been commercialised.

BARC has successfully developed a 500 keV, DC Accelerator, housed at BRIT Complex, Vashi, Navi Mumbai. The accelerator has been in regular operation for surface modification studies as well as applications. M/s Reliance India Ltd. is using it for crosslinking of plastic sheets and granules. BARC and IIT-Madras, Chennai are pursuing radiation damage studies of materials by using 500keV accelerator beams.

To meet the diverse demands of radiation processing of materials, BARC is designing and developing a 3 MeV, 30 kW DC accelerator and a 10 MeV, 10kW RF electron Linac. They are going to be housed at Electron Beam Centre (EBC), Kharghar, Navi Mumbai. A 10 MeV, 10 kW RF electron Linac has been installed and the

components of a 3 MeV accelerator are in the advanced stage of fabrication. EBC is planned to serve as a unique and dedicated centre for carrying out research and development in the areas of industrial accelerators and material processing.

High Power Pulsed Electron Accelerators

High Power pulsed electronic accelerators are used for producing Flash X Rays (FXR) and High Power Microwaves (HPM). These accelerators have many applications in the industry, nuclear power sector and the strategic areas. BARC has been developing two types of accelerator in this category, namely single and repetitive shot types. Kali 200, Kali 1000 and Kali 5000 belong to the single shot and the Linear Induction Accelerator (LIA) to the repetitive type. Kali 200 has been handed over to DRDO, MTRDC Bangalore. Kali 5000 has been commissioned recently and is in use at a microwaves power level of about 2 gigawatt. The Kali-5000 is used for High Power Microwave (HPM) generation and Flash X-Ray experiments.

High Power Electron Beam Units for Thermal Processing

BARC has developed a number of High Power Electron Beam (EB) machines for evaporation, melting and welding of reactive and refractory metals and their compounds. One 150 kV, 6 kW welder has been supplied to Machine Tool Prototype Factory of Ministry of Defence, Ambernath. This is being used for welding of maraging steel components. At present it is developing one 80 kV, 24 kW welder for welding thick section materials. The centre has recently developed one 30 kV, 80 kW melting unit for melting of reactive and refractory metals. Coating units have been developed for production of hard and corrosion resistant coatings as well as optical coatings on various surfaces.

Laser Systems and Applications

BARC and RRCAT have developed a variety of lasers that include gas lasers, solid state lasers and semiconductor lasers which find wide applications. The laser based devices that have been developed include a projectile speed-measuring instrument commissioned at the Defence Metallurgical Research Laboratory, Hyderabad, and Surface Profilo-meter for measuring roughness. For measurement of the equation-of-state-of-materials, various shock diagnostics systems are being set up at Trombay.

Plasma Devices and Systems

BARC has developed a large number of atmospheric plasma torches and processing systems. The high power plasma torches (40 - 300 kW) operating in transferred and non-transferred arc mode have been used for cutting, melting, spraying and other high enthalpy applications. A few notable examples are the joint work with Department of Space culminating in establishment of a plasma jet assisted thermal protection materials testing system at Thiruvananthapuram, underwater plasma cutting systems and plasma assisted aerosol generator for BARC. On surface engineering, plasma spray systems have been extensively used to develop special purpose thermal barrier, chemical barrier and bioceramic coatings that have drastically improved system performance. Low pressure surface coatings of 1-2 micron have also been developed using microwave plasma.

Water Management

BARC has developed a number of desalination technologies. These are based on multi-stage flash (MSF) evaporation, reverse osmosis (RO) and low temperature

evaporation (LTE). Using these technologies, desalination plants have been developed for providing potable water in rural areas and on ships, and water for industrial uses.

To utilize low pressure steam and waste heat from nuclear reactors, BARC is setting up a 6300 cubic metre/day combined MSF-RO Nuclear Desalination Demonstration Plant (NDDP) at Kalpakkam, Tamil Nadu. The plant will utilize seawater, steam and power from Madras Atomic Power Station (MAPS) for achieving cost effective desalination of seawater.

The 1800 cubic metre/day desalination unit, based on reverse osmosis (RO) process, has been commissioned. It is now producing potable water from seawater.

A small 30 cubic metre/day desalination unit, based on low temperature evaporation technology, and using waste heat of CIRUS, has been set up and commissioned at Trombay.

A 30 cubic metre/day brackish water RO plant operates at Satlana village, Jodhpur District, Rajasthan for providing drinking water to the villagers.

BARC has recently developed the Vapour Compression (VC) technology for seawater desalination and a 50,000 litres/day VC desalination plant has been installed and commissioned successfully.

BARC has also introduced an on-line Domestic Water Purifier that has been brought to the commercial market by several BARC licensees.

BASIC RESEARCH

The research centres of DAE are engaged in basic research in the areas relevant to their programmes. In addition, the autonomous research institutes, supported by grant-in-aid by DAE, are the centres of excellence in basic research that ranges from mathematics to computers, physics to astronomy, and biology to cancers.

Mathematics & Computation

In the field of mathematics and computation science, TIFR pursues academic programmes in algebra, algebraic geometry, Lie group, ergodic theory, number theory, combinatorics and topology at Mumbai and applications of mathematics at its Bangalore Centre; the *Harish Chandra Research Institute*, Allahabad, carries out research in advanced fields of mathematics and theoretical physics including astrophysics, high-energy physics, condensed matter physics and mathematical physics, and the *Institute of Mathematical Sciences* at Chennai, Tamil Nadu is engaged in research in the fields of Theoretical Physics, Mathematics and Computer Science.

The Anupam-Ameya supercomputer developed by BARC is a 512 CPU cluster and is the largest and fastest in the ANUPAM series. The machine consists of 256 Dual processor Xeon based IU servers interconnected to gigabit Ethernet network.

Physics

The School of Physics of TIFR is engaged in basic research in various fields of physics.

The national Facility for High-Field NMR at TIFR provides state-of-the-art services to researchers.

The Institute of Physics, Bhubaneswar conducts research in condensed matter and high energy, nuclear, atomic and accelerator based physics and other related

subjects. One of the main experimental facilities at the Institute is the Ion Beam Accelerator. The research facilities set up here are used by the researchers from within the Institute as well as from other research institutes and universities in India.

At the *Harish-Chandra Research Institute*, the research in physics covers the work on understanding the ground state of open string theories, which possess tachyons. Supergravity solutions with a positive cosmological constant are the other major areas of studies.

Seismic Studies

BARC monitors seismic activities at Garibidanur in Karnataka, Delhi and Trombay seismic stations. In addition to routine seismic analysis, research is also carried out in surface wave studies, development of analysis software and in other frontline areas.

Superconductivity

The field of superconductivity holds big promise for the future. BARC has completed a test facility to characterize samples of superconducting cables at liquid helium temperature. At VECC, test facility has already been created and successfully used to characterize superconducting cables and their joints. IGCAR is also working towards the development of SQUID based systems for material technology including non-destructive testing.

Astronomy

In the field of radioastronomy, a *Radiotelescope Array*, set up in the Nilgiri Hills near Ootacamund, Tamil Nadu, has been in use for decades. It is used in the studies of distant extragalactic radio-sources and interplanetary objects.

At Narayangaon, near Pune, Maharashtra, the *Giant Metre Wave Radio-Telescope* (GMRT) with 30 gigantic parabolic dishes, has been in operation. Set up by TIFR, the telescope is a frontline research facility in radioastronomy and is the world's most powerful radiotelescope in its range. GMRT is now a full fledged international observational facility for radioastronomy. A number of national and international users have carried out research in astronomy, on this telescope.

Another international class astronomy-research facility *GRACE* has been set up by BARC at Mount Abu, Rajasthan. It includes TACTIC. (Tera-electron-Volt Atmospheric Cerenkov Telescope with Imaging Camera). This is the first-ever Indian imaging gamma-ray telescope, and is being used for high-sensitivity observations of cosmic gamma ray sources above 1 TeV energy.

Chemistry

BARC provides state-of-the-art services to nuclear power plants, research reactors and heavy water plants, and carries out research in the frontier areas of chemistry.

The Centre also offers specialised analytical chemistry services to various user organizations within DAE and outside. The type of samples analysed cover a wide spectrum of materials such as metals and alloys, organic and organometallic compounds, inorganic compounds, rocks and minerals, nuclear and strategic materials, high purity materials, environmental and biological materials and others.

BARC's Centre for Compositional Characterization of Materials (CCCM) in Hyderabad provides high quality analytical services to various departmental,

governmental and private institutions.

Biology

At Trombay, the research in bio-sciences is directed towards evolving high yielding food crops, delaying or preventing post-harvest losses by increasing shelf life, developing modalities for low dose cancer radiotherapy and employing molecular and isotope techniques in basic biology for disease diagnosis and finger printing of individuals and population.

The *National Centre for Biological Sciences* of TIFR at Bangalore has been working on research initiatives in the frontline areas of biology.

The *Saha Institute of Nuclear Physics*, Kolkata is engaged in research elucidating the structure function correlation of biomolecules at the cellular and molecular level.

RESEARCH EDUCATION LINKAGE

DAE supports synergistic interaction amongst the national laboratories and the university systems through a number of mechanisms such as utilisation of DAE's research facilities through Inter-University Consortium, funding of extra-mural research, grant-in-aid to institutes of national eminence, and others.

UGC-DAE Consortium for Scientific Research

DAE and the University Grants Commission (UGC) had signed an MoU (Memorandum of understanding) in 1989 for setting up Inter-University Consortium of DAE Facilities (IUC-DAEF) at Indore. The Consortium, now known as UGC-DAE Consortium for Scientific Research, functions under the control of UGC. The scope of co-operation between UGC and DAE has been broadened to include all programmes pursued by DAE in the area of physical, chemical, life and engineering sciences.

Academic Programmes

The research centres of DAE are recognized by universities as the centres for research leading to postgraduate degrees. A number of scientists and engineers are recognized as post-graduate teachers by the respective universities. The employees are encouraged to register and obtain research degrees based on the work done in these research centres.

Homi Bhabha National Institute having the status of deemed University, was established in the year 2005 for nurturing the young talents to pursue research activities in nuclear science and technology and allied subjects to meet the future human resource needs of the DAE.

Funding of Extra-mural Research

DAE encourages and promotes scientific research in universities, institutes and laboratories in the areas of relevance to the Department. This is done through the Board of Research in Nuclear Sciences (BRNS) and the National Board for Higher Mathematics (NBHM), both in Mumbai.

BRNS is an advisory body of the DAE to recommend financial assistance to universities, academic institutions and national laboratories. It supports high quality R&D projects and lays emphasis on collaborative programmes amongst DAE organisations and the organisations outside the Department. It also provides financial assistance to organize symposia/conferences/workshops on topics of relevance to

DAE programmes.

To motivate young scientists to adopt a career of research, BRNS awards projects to them. It has initiated DAE Graduate Fellowship Scheme also. The Board awards Dr. K.S. Krishnan Research Associateships to attract highly talented young scientists and technologists. Its DAE-BRNS Senior Scientist Scheme aims at utilizing the expertise of active retired scientists/engineers who were involved in high quality research in the units of DAE or any National Laboratory or Universities/ Institute, and who, after retirement, are keen to carry out R&D in the field of their choice and of interest to DAE. It offers Homi Bhabha Chair to honour distinguished scientists. BRNS also encourages visiting scientist programmes for promoting active interaction with senior level scientists.

BRNS has also introduced "DAE Science Research Council (DAE-SRC) Award" that aims to set up frontier area research units around individuals. During the year 2006-07, the Board approved 90 new research projects.

DAE, through the National Board for Higher Mathematics (NBHM) is engaged in promoting excellence in higher mathematics, education and research in the country.

NBHM operates schemes such as helping the development of mathematical centres, giving scholarships to research fellows at doctoral and post-doctoral levels, travel assistance to young mathematicians for attending conferences/seminars etc., visiting professorship, assistance for research project/schemes, support to libraries, assistance to conferences, monitoring Mathematics Olympiads, and others. In collaboration with the International Mathematical Union, NBHM initiated schemes for making mathematical literature accessible through electronic-communication. During the year 2006-07, an annual budget of ₹ 12 crore was allocated to the Board. One third of the budget of NBHM is released to the mathematics departments of about 80 universities/institutions towards library support for purchase of books of mathematics.

NBHM will be hosting the next International Congress (ICM 2010) in India.

Grant-in-Aid to institutions and cancer hospitals

DAE provides grant-in-aid to seven national research institutes engaged in basic and applied research work ranging from natural sciences, mathematics and astronomy to cancer and fusion research. The Department also supports a society which manages education for the children of DAE employees.

Growing synergy between these research institutions and the research and development units of DAE has led to several joint projects between the DAE units and the aided Institutions.

During the financial year 2006-2007, the grant-in-aid of about ₹ 532 crore was provided by DAE to these institutions.

DAE extends financial assistance to cancer hospitals located in various parts of the country. The financial support provided in this regard during the year 2006-2007 was about ₹ 6 crore. The Department, under a Tripartite Agreement with the North-Eastern Council and the Government of Assam, is further strengthening Dr. B. Barooah Cancer Institute, Guwahati, Assam. The hospital is the regional centre for cancer treatment and control in the North-Eastern Region.

DAE has also initiated Out-Reach efforts in cancer care programme that include creation of better network between cancer institutions in the country focusing on

research and development, training and preparation of protocols for treatment, as well as incentive for indigenisation of radiation-related equipment for cancer treatment.

International Research Collaboration

Under a co-operation agreement, signed in March 1996, DAE, through its units, is engaged in development and supply of sophisticated components for Large Hadron Collider (LHC), a particle accelerator under construction by European Organisation for Nuclear Research (CERN) at Geneva, Switzerland.

Under this collaboration, through development done at RRCAT, delivery of over 7000 precision magnet positioning system (PMPS) jacks and about 2000 superconducting corrector magnets, over 1400 Local Protection Units for the LHC was completed by January 2006. Photo-multiplicity detector arrays have been manufactured at VECC, installed, and commissioned at LHC, CERN, Geneva and Relativistic Heavy Ion Collider (RHIC) in the Brookhaven National Laboratory of United States. VECC scientists have also participated in experiments, and joined in collaborative data analysis.

RRCAT has also collaborated with CERN on Novel Accelerator Technologies in the upcoming Compact Linear Collider Test Facility (CTF-3) and super conducting proton LINAC 4 projects at CERN.

CERN and BARC have strong collaborative activities which include supply of 1000 numbers of large area silicon strip detectors for use in Compact Muon Solenoid (CMS) at CERN. About 800 detectors have already been delivered.

At SINP, 80,000 MANAS chips were fabricated and delivered to CERN.

Contributions of DAE and other organisations in India to such activities have earned the “Observer” status for India at CERN.

BARC has supplied and successfully commissioned RF Resonator Control Electronics for Super-conducting Linac at the Australian National University, Canberra, Australia.

In the past, BARC had participated in an IAEA sponsored international effort for searching of Sr-90 “orphan sources” at Georgia. The Aerial Gamma Spectrometry System (AGSS), developed by BARC, was deployed in the search operations. The technical superiority of this system in detecting the orphan sources and the expertise of BARC staff in locating the same, and training of the staff of Nuclear Radiation and Safety Services (NRSS), Ministry of Environment, Georgia in the operation of the AGSS system, were highly appreciated by both the Government of Georgia and IAEA.

National Security

On 18 May 1974, India had conducted a peaceful underground nuclear experiment at Pokhran in Rajasthan desert. Here after twentyfour years, on 11 and 13 May 1998, India successfully conducted five nuclear tests that included a thermonuclear device, a fission device and three sub-kiloton nuclear devices.

Material Sciences

In the area of material science, the efforts of BARC and IGCAR are directed towards the development of materials for pressure vessels, clad and control elements, multiphase alloys and structural intermetallics, refractory metals and alloys, preparation of radiation sources, ultra high purity metals, and other special applications.

Accelerators

DAE has established capability in design, construction and operation of accelerators used in nuclear research, isotope production and radiation processing. The Variable Energy Cyclotron (VEC) at Kolkata, 14MV Pelletron Accelerator in Mumbai, and Synchrotron Radiation Sources (SRS) Indus I&II at the Raja Ramanna Centre for Advanced Technology (RRCAT) Indore, and Folded Tandem Ion Accelerator (FOTIA) at Trombay, are the major accelerator facilities in the country.

Cyclotrons & Other Accelerators

The **Variable Energy Cyclotron Centre (VECC)** at Kolkata is a national centre for accelerator-based research. The Variable Energy Cyclotron set up here by BARC in 1977, is used for basic research. It also produces radioisotopes for various applications. The Cyclotron is utilized by over 35 national laboratories and universities.

The Electron Cyclotron Resonance (ECR) ion source at VECC is a unique facility for research with heavy ions. An ECR-2 Ion Source is also connected to cyclotron. The heavy ion accelerator programme has succeeded in providing the heavy ion beams beyond 6 MeV/nucleon. So far oxygen, nitrogen, argon, neon, sulphur ion beams have been accelerated successfully. For the study of exotic nuclei, an indigenously designed and fabricated Isotope Separator-on-Line (SOL) system is also in operation here.

Currently, VECC is constructing a K500 Superconducting Cyclotron and a Radioactive Ion Beam (RIB) facility for accelerating radioactive ions.

The installation, commissioning, cool down, liquid helium filling, progressive increase of current in the superconducting magnets etc. have been accomplished. The maximum current achieved in small coils is 600 amperes and in large coils is 675 amperes. The peak magnetic field achieved is 5.0 Tesla. The magnetic field mapping of particle acceleration zone and analyses of data have been completed.

The Cyclotron was planned for re-commissioning from February 2007.

An ISOL (Isotope Separator On-Line) post-accelerator type Radioactive Ion Beam facility project is also under development at this centre. The facility will utilize proton and alpha beams from the existing cyclotron accelerator and thick targets to produce short lived radioactive species. These will be ionized in an on-line ion source, mass separated for purity and accelerated to higher energies for accelerator-based physics research. The most important landmark of this project so far is the successful development of heavy ion REQ (Radiofrequency Quadrupole) accelerator. This is the first of its kind in India and only a few countries in the world today have this technology. An online ECR ion source and on-line isotope separator have been developed, that are working nicely. Significant progress has been made in the research and development of thick target, two-ion-source for the production of high charge state ions, helium jet coupled two stage skimmer system. A special type Linac cavity for acceleration of low energy heavy ions is in the advanced stage of fabrication now. The facility was expected to deliver a few radioactive ion beams from early 2008.

Synchrotron and its Utilization

In the late 80s, accelerator-related research and development in India got a boost with the setting up of the Raja Ramanna Centre for Advanced Technology (RRCAT). It took up the task of setting up two Synchrotron Radiation Sources (SRS). In the first few years, the injector system in the form of a 20MeV microtron and a booster synchrotron (450-700 MeV) were set up. Then the first ring Indus-1, a 450MeV SRS was put together as a national research facility, in 1998. Current was stored in Indus-I, for the first time,

in April 1999. This SRS has since been operating routinely.

The work on construction of Indus-2, a 2.5 GeV SRS commenced in the late 90s and the assembly of ring was completed in 2005. The commissioning of this ring, and experiments to store the beam started towards the end of 2005. Indus-2 has now commenced operation and starting with injection of electrons at 550 MeV, a stored current of up to 38 mA was achieved. The beam energy was ramped up to 2.4 GeV.

Only about a dozen countries in the world have the capability in designing and construction of complex accelerators like Indus-2.

FOTIA

For providing light and heavy ion beams for use in basic and applied research in nuclear, atomic and material sciences, BARC had commissioned a Folded Tandem Ion Accelerator (FOTIA) in April 2000 at Trombay. The accelerator is being used for various research and development work.

Pelletron

The BARC-TIFR *Pelletron Accelerator Facility* at Mumbai, operating for over a decade, has made an impact internationally, in the field of nuclear research. To further increase the beam energy of Pelletron, a superconducting linear accelerator (LINAC) is being set up. The Phase-I of LINAC is operational now.

Other Accelerators

Recently, IGCAR has successfully commissioned at Kalpakkam, a 1.7 million-volt Tandatron accelerator, with high current and heavy ion capability.

The design of a 30 mA, 10 MeV Proton LINAC has been initiated at BARC.

Fusion & Other Plasma Technologies

The Institute for Plasma Research (IPR), Ahmedabad operated ADITYA Tokamak for the studies on high temperature magnetically confined plasmas. These studies have important implications on the nature of particle transport in the edge of tokamaks.

To address physics and technology issues related to advanced Tokamak configurations, SST-1, one of the world's first Superconducting Steady State Tokamaks with elongated diverter plasmas and 1000 second operation capability, is being set up at IPR. Most of the sub-systems of SST-1 have been fabricated, assembled and individually tested before final assembly. The basic machine itself is now fully assembled and is going through the process of commissioning.

Experts from International Thermonuclear Experimental Reactor (ITER) central team and member countries assessed India's technical capability and preparedness to participate in the ITER project as full member. At the end of successful negotiations India's accession to ITER took place on the 6 December 2005 during Negotiator's meeting at Jeju in South Korea. Also an acceptable package has been allotted to India that includes sub-systems requiring contribution from the Indian heavy industry such as the large cryostat of ITER including erection and commissioning, components for the cooling system, cryolines and components for cryo-distribution system, vacuum vessel shields etc. The Indian package also includes components for high technology systems like Ion Cyclotron heating and Current drive, Electron Cyclotron Start up system, Diagnostic Neutral Beam and some diagnostic systems. It is a matter of pride that the international fusion community has accepted Indian expertise in fusion

science and technology at the international standard and shown confidence by accepting India as a member and allocating a demanding package to be delivered.

ITER

Fusion is the energy source of sun and stars. In fusion, two light nuclei (e.g. deuterium and tritium) combine to form a heavier nucleus, and a large amount of energy is released. For the past 50 years, scientists have been working on the development of fusion technologies to generate energy on earth. Fusion has several attractions as a large-scale energy source. Its basic fuels are abundant and available everywhere and the technology is environment-friendly.

Considering the complexity of this technology, Japan, European Union, the then Soviet Union and the United States had established a collaborative project International Thermonuclear Experimental Reactor (ITER) in 1985 to harness fusion energy. China and South Korea also joined the consortium of parties to the ITER venture.

India has had a fusion research programme of its own, since the early eighties. Two tokamaks have been indigenously built at the Institute for Plasma Research (IPR) near Ahmedabad, and a small tokamak has been imported from Toshiba, Japan for the Saha Institute for Nuclear Physics, Kolkata (SINP).

The European Union (EU) encouraged India to join ITER and a team from EU visited India for initial discussions in October 2004. This was followed by further interactions at the international level and approvals at home. Finally India was admitted to the ITER negotiations on 5 December 2005 at a meeting held at Jeju, South Korea.

The ITER project is an international collaborative research project on an unprecedented scale, which will reproduce the fusion reaction on the earth. ITER is the Latin for “the way”.

India will contribute equipment worth nearly 500 million US dollars to the experiment and will also participate in its subsequent operation and experiments. India's contributions to ITER are largely based on the indigenous experience and the expertise available in Indian industry.

India will be fabricating the 28 m dia, 26 m tall stainless steel cryostat, which forms the outer vacuum envelope for ITER. The vacuum vessel shields made of 2% boron steel and occupying space between the two walls will also be designed and fabricated by India. It will also take up the design and fabrication of eight 2.5 mega watt ion cyclotron heating sources, complete with power systems and controls. It will also take up the fabrication of a diagnostic neutral beam system which will give crucial information about the physics of burning plasmas in ITER. India will also be responsible for a number of other diagnostic sub-systems. Finally, India will contribute to cryo-distribution and water cooling sub-systems. All this equipment will have to be built with ITER quality standards and in a time frame (approximately ten years) determined by the International Team at the host site in Cadarache, France.

TECHNOLOGY TRANSFER

The research carried out in DAE research centres is generating several spin-off technologies that are transferred to industry for commercial production. These centres also provide various technical services that are benefiting industry. The recent ones transferred from BARC to industry are online domestic water purifier, electrolyzing

of reactor channel sealing plug jaws, and improved lascan dia gauge, Medical Analyser Software Technology, Digital Medical Imaging System etc. The technology of nisarg-runa, a biogas plant based on biodegradable waste, has been transferred to about 30 parties. The instrumented pipe inspection gauge is now commercially available to inspect 12-inch oil pipe lines.

BARC has also transferred the technology of the indigenously developed Cobalt-60 teletherapy unit to private entrepreneurs for commercial production.

The Technical Services offered by DAE research centres to industry are related to non-destructive testing, stress measurements, acoustic topography, material characterisation and others.

BARC offers complete range of conventional fabrication and machining, specialized design and development expertise, and co-ordinate machining facilities, for developing sophisticated equipment for various applications. The Centre also provides analytical services for determining radioactivity content, in packed drinking water samples and samples for pharmaceutical companies.

Human Resource Development

In 1957, BARC had started a Training School at Trombay to prepare a select group of young scientists and engineers every year for responsible positions in various institutions and projects of DAE. Since its establishment, over 7000 young men and women from varied disciplines have passed through the portals of the School. They are contributing to all the segments of the nuclear programme.

The School admits about 100 Engineering graduates and Science post-graduates annually, mainly in the disciplines of Physics, Chemistry, Biology & Radiobiology and Engineering (Chemical, Mechanical, Electrical, Computer, Electronics and Metallurgy). They go through an integrated course for one year, which exposes them to the multi-disciplinary culture of the Department. There is also an additional entry channel via the DAE Graduate Fellowship Scheme (DGFS), which operates in collaboration with six IITs. About 40 graduates are sponsored for MTech in these IITs who join the department after obtaining the qualification. This group also goes through a 4-month induction course at the Training School.

The endeavour of the School is to produce an individual in whom there is an integration of a large number of sciences and technologies, that are demanded by any work in atomic energy today.

Some other courses conducted by various divisions of BARC are :

- Radiation Medicine
- Medical Radioisotope Techniques
- Health Physics
- Radiological Physics
- Radiation Protection and Safety of Radiation Sources
- Radiation Safety in Industrial applications of Radioisotopes and X-rays
- Radiography Testing Techniques
- Radioactive Waste management
- Safety Assessment of Waste Disposal
- Radioimmunoassay and its Clinical Application

- Chemical Analysis and NDT Techniques
- Operation/maintenance and Inspection of Research Reactors
- Mutation Breeding of Tropical Crop Plants
- Pesticide Residue Analysis

To cater to the growing demands of DAE, BARC Training School now has affiliates for various specializations. The BARC Training School thus has associated with it the Training Schools at the Centre for Advanced Technology (CAT), Indore, the Nuclear Fuel Complex-Heavy Water Board (NFC-HWB), Hyderabad and the Nuclear Power Corporation of India Ltd. (NPCIL) Training School with centres at Tarapur, Rawathaba, Kaiga and Kalpakkam. Each of these training schools prepare the scientists and engineers for specific tasks as follows.

- CAT Training School is for research and development in lasers, accelerators, cryogenics, superconductors, material science, power electronics and microwaves.
- NPCIL Training School is for training in operation and maintenance of nuclear power plants.

International Relations

India is a designated member of the Board of Governors of the International Atomic Energy Agency (IAEA) since its inception. Besides taking active part in policy management and programme of the Agency, India offers training facilities, fellowships, scientific visits, etc. to foreign scientists and provides the services of its scientists for expert assignments to other countries, both through IAEA and to the countries with which we have entered into bilateral agreements for co-operation in the field of peaceful uses of atomic energy.

INDIAN SPACE PROGRAMME

Today, India is one of the few countries which has an impressive array of achievements in the area of space. Besides, the country has successfully applied space technology for its rapid development and is offering a variety of space based services benefiting the common man. During the formative decade of 1960s, space research was conducted by India mainly with the help of sounding rockets to study upper atmosphere. The Indian Space Research Organisation (ISRO) was formed in 1969. Space research activities were provided additional fillip with the formation of the Space Commission and the Department of Space (DOS) by the Government of India in 1972. ISRO was brought under the DOS in the same year. For the saga of Indian space efforts, 70s were the era of experimentation during which experimental satellite programmes like Aryabhata, Bhaskara, Rohini and Apple were undertaken. The success of those programme, led to era of operationalisation in 80s during which operational satellite programmes like INSAT and IRS came into being. Now, INSAT and IRS are the major programmes of ISRO. Today, satellites built by ISRO have become an integral part of our national infrastructure. While the experimental satellites were launched from abroad, in order to achieve self reliance in launching satellites development of launch vehicle was also undertaken.

The two major operational space systems namely Indian Satellite (INSAT) for telecommunication, television broadcasting and meteorological services and Indian Remote Sensing (IRS) Satellites for resources monitoring and management together with the two operational launch vehicles, Polar Satellite Launch Vehicle (PSLV)

primarily for launching remote sensing satellite into polar orbit and Geosynchronous Satellite Launch Vehicle (GSLV) for launching communication and meteorological satellite into Geosynchronous Transfer Orbit (GTO) have continued to provide services to the nation.

The most significant milestone of the Indian Space Programme during the year 2009-2010 was the pathbreaking discovery of the traces of water in the lunar surface by India's first mission to moon - Chandrayaan-1. During its 10 months of operation, it sent valuable data on mineral and chemical content and topographic feature of the lunar soil which is being analysed and several interesting results have already been published. Other important developments were: the static testing of largest solid booster S200 built by ISRO to be used in the advanced version of GSLV namely GSLV Mark III capable of putting 4 tonne satellite into Geo-stationary orbit, launching of Radar Imaging Satellite (RISAT-2) and ANUSAT onboard Polar Satellite Launch Vehicle (PSLV-C12) on 20 April 2009 and launch of Oceansat-2 along with six nano-satellites for international customers onboard PSLV-C14 on 23 September 2009 from Sriharikota.

INDIAN NATIONAL SATELLITE (INSAT) SYSTEM

The Indian National Satellite (INSAT) system is a joint venture of Department of Space, Department of Telecommunication, India Meteorological Department, All India Radio and Doordarshan. Established in 1983, INSAT is the largest domestic communication satellite system in the Asia Pacific Region with Eleven satellites in operation: INSAT-2E, INSAT-3A, INSAT-3B, INSAT-3C, INSAT-3E, KALPANA-1, GSAT-2, EDUSAT, INSAT-4A, INSAT-4B and INSAT-4CR. The overall coordination and management of INSAT system rests with INSAT Coordination Committee. The latest satellite in the series, INSAT-4CR, was launched on 2 September 2007 using GSLV from Sriharikota giving further boost to INSAT capability, especially for Direct-To-Home (DTH) television broadcast. Following are the major services providing by INSAT with its nearly 200 transponders in the C, Extended C and Ku-bands:

a. Being a multipurpose satellite, the INSAT serves many important sectors of the Indian economy. Foremost amongst them is Telecommunication sector wherein INSAT is providing Mobile Satellite Service besides providing VSAT services. Today, a total of about 650 Earth stations and nearly 1,19,000 VSATs telecommunication terminals of various sizes and capabilities (excluding NICNET and VSAT micro terminals) are operating in INSAT telecommunications network providing about 9600 two-way speech circuits and providing transmission backhaul point-to-point connectivities.

b. Similarly, INSAT has been a major catalyst for the expansion of television coverage in India. Satellite television now covers 100% area and 100% population. the terrestrial coverage is over 65 percent of the Indian land mass and over 90 percent of the population.

c. In addition to this, social development through exclusive channels for training and developmental education has become possible through INSAT.

d. A Telemedicine network to take super speciality medical services to the remote and rural population has become a reality. Presently, ISRO's Telemedicine Network has enabled 382 Hospitals with the Telemedicine facility. 306 Remote/District/Health Centres and 16 Mobile Telemedicine units are connected to 60 Super Speciality

Hospitals located in the major cities.

e. The launch of EDUSAT, India's first thematic satellite dedicated exclusively for educational services has provided further fillip to the educational services offered by the INSAT system. Today, EDUSAT network has about 60,000 class rooms connected to various academic institutions and universities. About 15-18 lakh students are being benefited through EDUSAT every year.

f. INSAT system is also providing meteorological services through Very High Resolution Radiometer and CCD cameras on some of its spacecrafts. This apart, cyclone monitoring through meteorological imaging and issue of warnings on impending cyclones through disaster warning receivers have been operationalised. For this, 350 receivers have been installed along the east and west coasts of India.

INDIAN REMOTE SENSING SATELLITE SYSTEM

Indian Remote Sensing (IRS) Satellite system is one of the largest constellations of remote sensing satellites in operation in the world today. The IRS programme commissioned with launch of IRS-1A in 1988 and presently includes ten satellites that continue to provide imageries in variety of spatial resolutions from less than a metre ranging upto 500 metres. Besides, the state-of-art cameras of IRS spacecraft take the pictures of the Earth in several spectral bands. The satellites of IRS system which are in service today are TES, Oseansat-1 & 2, Resourcesat-1, Cartosat-1 and Cartosat-2 & 2A, IMS-1, RISAT-2. The upcoming Remote Sensing Satellites are Cartosat-2B, Resourcesat-2 and Radar Imaging Satellite RISAT-1.

Imagery sent by IRS spacecraft is used for several applications covering agriculture, water resources, urban development, mineral prospecting, environment, forestry, drought and flood forecasting, Ocean, Disaster Management Support and Village Resource Centres.

Besides village Resource Centres, single window agencies providing the services offered by INSAT and IRS satellites to provide information on natural resources, land and water resources management, tele-medicine, tele-education, adult-education, vocational training, health-care and family welfare programmes, have been established. Already 473 VRCs in 22 States and Union Territories have been established in the country.

LAUNCH VEHICLE PROGRAMME

The launch vehicles developmental programme in the country began in early 1970s. The first experimental Satellite Launch Vehicle (SLV-3) was developed in 1980. An Augmented version of this, ASLV, was launched successfully in 1982. India has made tremendous strides in launch technology to achieve self-reliance in satellite launch vehicle programme with the operationalisation of Polar Satellite Launch Vehicle (PSLV) and Geosynchronous Satellite Launch Vehicle (GSLV).

Polar Satellite Launch Vehicle (PSLV)

PSLV represents ISRO's first attempt to design and develop an operational vehicle that can be used to orbit remote sensing satellites. While SLV-3 secured for India a place in the community of space-faring nations, the ASLV provided the rites of passage into launch vehicle technology for ISRO. And with PSLV, a new world-class vehicle has arrived. PSLV is now capable of launching a 1750 kg satellite in 620 km sun-synchronous polar orbit, 1050 kg satellite in geosynchronous transfer orbit or a 3500 kg class satellite into Low Earth Orbit. In the standard configuration, it measures 44.4

m tall, with a lift off weight of 295 tonnes. PSLV has four stages using solid and liquid propulsion systems alternately. The first stage is one of the largest solid propellant boosters in the world and carries 139 tonnes of propellant. A cluster of six strap-ons is attached to the first stage motor, four of which are ignited on the ground and two are air-lit.

PSLV has repeatedly proved its reliability and versatility by launching 39 satellites/spacecrafts (17 Indian and 22 for International customers) into a variety of orbits so far (till April 2010). With its various configuration, PSLV has proved its multi-payload, multi-mission capability in a single launch and its geosynchronous launch capability. In Chandrayaan-1 mission, another variant of PSLV with an extended version of strap-on motors, PSOM-XL, the payload capability was enhanced to 1750 kg in 620 km Polar Sun Synchronous Orbit. PSLV has rightfully earned the status of workhorse launch vehicle of ISRO.

Geosynchronous Satellite Launch Vehicle (GSLV)

The GSLV is capable of launching 2,000 kg class satellites into Geosynchronous Transfer Orbit (GTO). It is a three stage vehicle, 49 m tall, with 414 t lift off weight. It has a maximum diameter of 3.4 m at the payload fairing. First stage comprises S139 solid booster with four liquid (L40) strap-ons. Second stage (GS2) is liquid engine and the third stage (GS3) is a cyro stage.

The first flight of GSLV took place from SHAR on 18 April 2001 by launching 1540 kg GSAT-1. It was followed by five more launches, GSLV-D2 on 8 May 2003 (GSAT-2 1825 kg); GSLV-F01 on 20 September 2004 (EDUSAT 1950 kg); GSLV-F02 on 10 July 2006 and GSLV-F04 on 2 September 2007 (INSAT-4 CR 2130 kg). Till now, GSLV has launched four satellites. Preparations for launch of GSLV-D3 carrying indigenous cryogenic engine are in an advanced stage.

GSLV-Mk III, a new version of GSLV and capable of launching spacecraft weighing upto 4 tonnes to GTO, is under development.

Launch Infrastructure

An elaborate launch infrastructure at the Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota Island on the East Coast of India has the necessary infrastructure for launching satellite into low earth orbit, polar orbit and geostationary transfer orbits. Sriharikota located at 13 deg North latitude is situated in the Nellore district of Andhra Pradesh and is about 100 km from Chennai. From here, satellites can be launched into a variety of orbital inclinations. Apart from full-fledged facilities for satellite integration, assembly and launch, Sriharikota also houses a Telemetry, Tracking and Command network for tracking satellites and monitoring them. The Second Launch Pad at SDSC SHAR was built as a redundancy to the existing launch pad, and to cater to the requirement of GSLV MkIII as well as other future launch vehicles. Proposal for building third Launch Pad is underway in order to cater to the needs of Human Space Flight Programme of the country.

The launch complexes provide complete support for vehicle assembly, fuelling, checkout and launch operations. Apart from these, it has facilities for launching sounding rockets meant for studying the earth's atmosphere. SDSC-SHAR has a separate launch pad for launching the sounding rockets. The centre provides necessary launch base infrastructure for sounding rockets of ISRO and for assembly,

integration and launch of sounding rockets and payloads. During the year, a state-of-the-art S200 solid propellant plant with built-in automation and safety features has been successfully commissioned at SDSC SHAR.

SPACE SCIENCE

Starting with ground based and balloon borne experiments in 1940s, the Indian space research activities were initiated with the launching of sounding rockets from the Thumba Equatorial Rocket Launching Station (TERLS) in 1963 to measure the equatorial electrojet parameters. Since then, the Space Science Programme has progressed with setting up of state-of-the-art ground based experimental facilities and conducting a large number of rocket and balloon borne experiments on upper atmospheric phenomena, cosmic rays, energetic X-rays and gamma rays. With the advent of satellite era, scientific payloads have been launched to investigate the upper atmosphere/ionosphere, observe in the X-ray and UV wavelengths which otherwise would not have been possible from ground.

India has a vibrant space science programme covering Astronomy, Astrophysics, Planetary Science and Exploration, Solar Terrestrial physics including Space Weather, Space Meteorology and Climate and Microgravity science/applications. As part of that programme, ground facilities like astronomical observatories, Giant Meter Wave Telescope, Mesosphere-Stratosphere-Troposphere Radar facility, etc., have been built. Balloons, sounding rockets and satellite platforms are used for flying scientific instruments.

Chandrayaan-1, India's first mission to the Moon was successfully launched on 22 October 2008. The eleven payloads have studied the moon from different perspectives and provided excellent quality of high resolution data. The most significant result is the discovery of the presence of hydroxyl and water molecules on the lunar surface and inference of sub-surface water ice deposits in the base of craters in permanent sun shadow.

ISRO's future map consists of front ranking space science missions which include:

- ASTROSAT, the first dedicated Indian space astronomy mission for simultaneous multi-wavelength observations of stellar and galactic sources.
- Chandrayaan-2, a logical extension of Chandrayaan-1 to carry out *in-situ* analysis of lunar samples and study lunar surface properties using instruments onboard Orbiter and Rover.
- YOUTHSAT, a mini satellite to study the impact of Sun and Space Weather.
- Megha-Tropiques, to study the convective systems that influence the tropical weather and climate.
- Several small satellite missions like ADITYA-1 (Solar coronagraph), X-ray Polarimeter Experiment (POLIX), Infra-Red Spectroscopic Imaging Survey (IRSIS), SENSE P/E (Satellite for Earth's Near Space Environment) and I-STAG (Indian Satellite for Aerosol and Gases) are also on the anvil.

SPACE-INDUSTRY CO-OPERATION

One of the important features of the Indian Space Programme since its inception has been the co-operative approach with the Indian industries. The DOS has established linkages with about 500 industries in small, medium and large-scale sectors, either

through procurement contracts, know-how transfers or provision of technical consultancy. So far, DOS has transferred nearly 300 technologies to Indian industries for commercialisation and undertaken technical consultancies in various fields. Because of its association with the space programme, the space industry is now capable of meeting the challenges in terms of adopting advanced technologies or handling complex manufacturing jobs.

INTERFACE WITH ACADEMIC AND R&D INSTITUTIONS

The ISRO Sponsored Research Programme (RESPOND) support research and developmental projects and other scientific activities at the academic institutions and R&D laboratories in the country in the areas of relevance to the Space Programme. In addition, RESPOND also supports Advanced Technology Research in Space technology Cells established at premier Institutions like IITs and IISc. The major activities supported cover research projects in a wide range of topics in science, applications and technology areas and support to conferences, symposia and publications, which are of relevance to space research. The prime objective of this programme is to strengthen the ISRO Academic Institution interaction for the generation of a wider infrastructural and manpower training base for conducting space research in the country.

During the year 2009-10, ISRO has supported 33 New Projects and renewed 50 Ongoing Projects and 6 space technology cells established at the Academic Institutions. In addition, 1 Educational Program, 1 ISRO Chair and 104-conferences/symposia/publications and other scientific promotional activities have been supported.

INTERNATIONAL CO-OPERATION

International cooperation is an integral part of space activities and ISRO continues to lay importance on bilateral and multilateral relations with space agencies and space related bodies with the aim of taking up new scientific and technological challenges, defining international frameworks for exploitation and utilisation of outer space for peaceful purposes, refining space policies and building and strengthening existing ties between the countries. ISRO also takes great interest in providing expertise and services available at its centres for helping other developing countries in the applications of space technology.

Formal co-operative arrangements in the form of either Agreements or Memoranda of Understanding (MoU) or Framework Agreements have been signed with Argentina, Australia, Brazil, Brunei Darussalam, Bulgaria, Canada, Chile, China, Egypt, European Centre for Medium Range Weather Forecasts (ECMWF), European Organisation for Exploitation of Meteorological Satellites (EUMETSAT), European Space Agency (ESA), France, Germany, Hungary, Indonesia, Israel, Italy, Japan, Kazakhstan, Mauritius, Mongolia, Myanmar, Norway, Peru, Russia, Spain, Sweden, Syria, Thailand, the Netherlands, Ukraine, United Kingdom, United States of America and Venezuela. Following are the major co-operative activities with international communities :

- ISRO's maiden mission to Moon, the Chandrayaan-1, has been an exemplary example of international co-operation with its 6 international payloads.
- Data from Oceansat-2 is highly sought after by international scientific community and in this respect a co-operative programme on sharing the data with National Aeronautics and Space Administration (NASA) and National Oceanic and Atmospheric Administration (NOAA) for their operational research is expected to be

signed shortly. It may be recollected that Oceansat-2 carried an atmospheric sounder ROSA from Italy apart from the main payloads, namely, Ocean Colour Monitor and imaging scatterometer.

- The Indo-French joint satellite mission called MEGHA-TROPIQUES for the study of the tropical atmosphere and climate related to aspects such as monsoons, cyclones, etc., is making steady progress.

- India continues to play an active role in deliberation on Science, Technology and Legal sub-committees of the United Nations Committee on the Peaceful Uses of Outer Space (UN-COPUOS). India also played major role in other multilateral institutions including United Economic and Social Commission for Asia and the Pacific (UN-ESCAP), International COSPAS-SARSAT system for search and rescue operations, International Astronautical Federation (IAF), Committee on Earth Observation Satellites (CEOS), Committee on Space Research (COSPAR), Inter Agency Debris Coordination Committee (IADC), Space Frequency Coordination Group (SFCG), Coordinating Group on Meteorological Satellites (CGMS), International Global Observing Strategy (IGOS), International Space University (ISU), Asian Association for Remote Sensing (AARS), International Society for Photogrammetry and Remote Sensing (ISPRS), etc.

- Internationally, ISRO plays active role in sharing its expertise and satellite data for the management of natural disasters through various multi-agency bodies like International Charter for Space and Major Disasters, Sentinel Asia and UNSPIDER.

- ISRO, along with Astronautical Society of India, successfully organised the Eighth IAA international Conference on Low-Cost Planetary Missions at Goa. During this Conference, election of Chairman, ISRO as the President of IAA was formally announced and Chairman, ISRO became the first dignitary outside USA to head the well-acclaimed international academic body.

- Sharing of Experience in Space (SHARES) is a scheme initiated by ISRO under which training in different applications of space technology is being provided to scientists from other developing countries.

- The Centre for Space Science and Technology Education for Asia and the Pacific (CSSTE-AP) has been set up in India under the initiative of the UN Office for Outer Space Affairs (UN OOSA) and offers nine month postgraduate diploma courses in Remote Sensing, Geographic Information Systems, Satellite communication, Satellite Meteorology and Global Climate and Space and Atmospheric Science. As of now, a little more than 860 participants from 31 Countries in the Asia Pacific Region have got benefited from CSSTE-AP Courses.

- India has also set up local User Terminals and a Mission Control for the international COSPAS/SARSAT programme for providing distress alert and position location service. A Search and Rescue Transponder is included in INSAT-3A spacecraft. India is a signatory to the International Charter on Disaster Management and is providing remote sensing data for the same.

COMMERCIAL VENTURES

The Antrix Corporation Limited is the marketing agency under Department of Space established in 1992 with access to resources of ISRO DOS as well as Indian space industries. From the modest beginning in early days of its existence, today Antrix is recognised as "One Source" for meeting all space needs of the customers. Antrix markets sub-systems and components for satellites, undertakes contracts for building

satellite to user specifications, provides launch services and tracking facilities and organises training of manpower and software development.

The major achievements during the year was the signing of Ka band Transfer orbit Support Services (TOSS) and facilities contract with a leading international agency. Further, back-to-back agreements were signed with the party for the provision of TOSS services in C & Ku band. During the year, TTC support for DLR mission was provided by Antrix. The company continues to provide Telecommand, Control and Ranging Services (TCR), Network Monitoring & Control Services (NMC) and Operation Support for Radio Frequency Auto Track (RFAT) and uplink station for international space agencies.

The delivery of Hylas spacecraft, being developed and built for Avanti Screenmedia, UK jointly with EADS Astrium under a contract through ANTRIX, was expected to be completed in third quarter of 2010.

Antrix has been marketing data from the IRS series of satellites for meeting diverse application needs across the globe. Acceptance of IRS services by the international customers from all parts of the globe is growing over the years. Antrix at present is marketing the data from Cartosat-2, Cartosat-1, Resourcesat-1, Oceansat-1 and Oceansat-2 satellites, thus adding diversity to the data products offered. Downlink services for IRS data at 25 international ground stations is further strengthened by a network of 21 international resellers for marketing.

The highlight of the achievement in launch service area was the successful launch of six nanosatellites for international customers on board PSLV-C14 mission on 23 September 2009. Contracts have been signed for launch of satellites from Singapore, Japan, Europe, Canada and Indonesia during 2010-11. timeframe.

Antrix has been conferred with several prestigious awards including "India Pride Awards-Gold 2009" by *Dainik Bhasker* for "Excellence in India Image Enhancement for PSU's" and "Geospatial Company of the year 2009" was conferred by GEOSPATIAL Today. Antrix also bagged the "MOU Excellence Certificate" for 2007-08 for excellence in the achievement of MOU Targets set by Department of Public Enterprises (DPE).

Recently, several path breaking discoveries related to lunar studies like presence of water and presence of chemicals and minerals were made by Chandrayaan-1. The space programme in the country is now poised for several major breakthroughs in the development of advanced technology needed for realisation of the future launch vehicle and spacecraft missions in the coming years. Necessary infrastructure for casting large boosters, liquid propellant engines, heavy cyro boosters for advanced heavier launchers and missions in the area of remote sensing, communications and navigational satellites as well as space science have been established.

The continuing expansion of space application programmes like Village Resources Centres, telemedicine, tele-education, disaster management support and outreach through Direct-to-Home television, reiterates the increasing role played by the Indian space systems in providing direct benefits to the society. Thus, Indian space programme continues to pursue successful goals on all fronts in meeting the objective of achieving self-reliance in space technology and its applications for national development.

EARTH SCIENCES

Earth Sciences cover a gamut of policies and programmes that contribute to societal benefits in the areas of Weather (General), Weather advisories specific to agriculture,

aviation, shipping, sports, etc, Monsoon, Disasters (cyclone, earthquake, tsunami, sea level rise), Living and Non-living resources (fishery advisory, Poly-metallic nodules, Gas hydrates, etc) Coastal and Marine Ecosystems, and Climate Change. The Programme of the ministry are wide ranging and highly multidisciplinary, which require experts in different fields of science and technology. Recognizing the increasing sensitivities of matters relating to the Earth Science System, Government of India established the Ministry of Earth Sciences on 12 July 2006. The vision of the Ministry is to excel in knowledge and technology enterprise for the earth system science (atmosphere, biosphere, hydrosphere, cryosphere and geosphere) realm towards socio-economic benefit of the Indian subcontinent and in the Indian Ocean region. The primary mission is to develop scientific understanding of the Earth System to improve prediction of climate, weather and natural hazards for the Indian subcontinent and in the Indian Ocean Region, Long-term measurements of variables to record vital signs of the Earth system, Conduct focused process studies, Development of Earth system models, Development of an information system and services for Societal, environmental and economic benefits.

At the field level the work of the Ministry is supported by the following organizations:-

- India Meteorological Department (IMD).
- Indian Institute for Tropical Meteorology (IITM) at Pune and a National Centre for Medium Range Weather Forecasting (NCMRWF) at Noida.
- National Institute of Ocean Technology (NIOT) at Chennai.
- National Centre for Antarctic and Ocean Research (NCAOR) at Goa.
- Indian National Centre for Ocean and Information Services (INCOIS) at Hyderabad.
- Integrated Coastal and Marine Area Management (ICMAM) at Chennai.
- Centre for Marine Living Resources and Ecology (CMLRE) at Kochi.

The details of the Ministry's programme as well as the working of the research centres are given in the following paragraphs.

ATMOSPHERIC SCIENCE, INFORMATION SERVICES

Cyclone Warnings

The extensive coastal belts of India have always been vulnerable to deadly storms that strike in the form of tropical cyclones. To give people of these areas a timely warning of an impending cyclone is of paramount importance and IMD does exactly that. The aim is to minimize the losses of life and property due to tropical cyclones.

About four to six tropical cyclones, all characterized by torrential rain, gales and storm surges causing heavy loss of human lives and destruction of property, originate in the Bay of Bengal and the Arabian Sea every year. The IMD, besides monitoring and forecasting cyclones, provides relevant data and advice to members of the World Meteorological Organization (WMO) so that economic and social co-operation can be built upon by exchanging ideas between the Pacific Panel [Economic and Social Commission for Asia and the Pacific (ESCAP)] countries like Pakistan, Bangladesh, Sri Lanka and others.

The agency acts as a Tropical Cyclone Advisory Centre (TCAC) for international civil aviation as well. At the national level, IMD interacts

continuously with the National Disaster Management Authority and Ministry of Home Affairs to provide timely information and warnings for emergency support services. Therefore, continuous efforts are being made for expanding and strengthening IMD's activities in relation to observing strategies, forecasting techniques, disseminating methods and conducting research related to different aspects of tropical cyclones.

Cyclone monitoring

With the help of satellite imageries, particularly, those from INSAT, the Indian geostationary Satellite, IMD keeps a constant watch on the Arabian Sea and the Bay of Bengal for the likely genesis of tropical cyclones. Data from ships and ocean buoys also make valuable contribution. As the systems come nearer to the Indian coastline, their subsequent development and movement is thoroughly monitored by a chain of Cyclone Detection radars set up at various centres to cover the entire coastal belt.

The likely movement of the storms is predicted with the help of tracking models and reference to past climatology, which has been built using 125 years of cyclone data. The observational network for cyclone monitoring consists of land-based surface and upper-air stations, observations from Doppler Weather Radars/Cyclone Detection Radars and data from geostationary satellites. By virtue of installation of these radars, the loss of lives has considerably dropped from 20,000 during 1977 to about 1000 in 1996 and further to about 27 in 2005, when the cyclones of similar intensity hit the Indian coast.

The forecast delivers information on (i) current location and intensity of the cyclone, (ii) forecasting the intensity, direction and speed of the cyclone, (iii) time and location of landfall and warning to coastal areas likely to be affected by the gale force wind, (iv) estimated height of tidal waves/storm surge and the part of the coast likely to be affected by tidal waves/storm surge and (v) likely area to be affected by heavy/very heavy/extremely heavy rainfall. Apart from the synoptic analysis, various climatological, statistical and numerical weather prediction models are used for the above purpose.

Warning responsibility centres

The Cyclone Forecasting Wing in IMD has a three-tier structure to cater to the needs of the maritime states and other users. There are Cyclone Warning Centres (CWCs) at Visakhapatnam, Ahmedabad and Bhubaneswar that provide cyclone warnings for coastal regions of the maritime states in which they are located.

In addition, there are Area-based Cyclone Warning Centres (ACWCs) at Kolkata, Chennai and Mumbai that not only provide warnings to their respective maritime states but also supervise the advisories of these centres under their jurisdiction. The national and international coordination as well as liaison with the Central Government and other organizations is done by the Cyclone Warning Division located at the IMD headquarters in New Delhi. The ACWCs/CWCs issue warnings at three-hourly intervals to ships in the high seas, ships in coastal waters, ports, fishermen, government officials and the general public regarding adverse weather likely to be experienced in their respective areas. During a cyclone warning, bulletins are broadcast through All India Radio (AIR) and electronic and print media. When a radar station tracks the cyclone with confidence, which happens usually about 24 hours before landfall, hourly broadcasts are also made.

Warning dissemination channel

Cyclone warnings are disseminated through radio, television, print media, telephones, fax, telex, telegrams, police wireless network etc. A specially designed Cyclone Warning Dissemination System, which works via the INSAT satellite, provides area specific service even when there is a failure of conventional communication channels.

These warnings are issued for general public, officials of Central and State government responsible for disaster mitigation and relief, industrial and other establishments, railways, aviation, communications and power authorities. These warnings are disseminated in two stages. The first stage is called "Cyclone Alert" that is issued 48 hours in advance of the expected commencement of adverse weather over the coastal areas. The second stage is known as "Cyclone Warning" and is issued 24 hours in advance. A pre-cyclone warning is instituted prior to cyclone alert and a post-landfall outlook is issued for areas in the interior which may be affected by the cyclone.

The office in New Delhi has been designated as the Regional Specialized Meteorological Centre for Tropical Cyclones. It is one of the five such centres recognized by the WMO under a global system for monitoring tropical cyclones.

Skills and capabilities

The average operational forecast error of IMD for 24 h track forecast is about 140 km. Considering the landfall forecast of cyclones, based on the last five years data, the 12 h and 24 h landfall forecast errors are comparable with those of other ocean basins.

However, continuous efforts are being made to improve effective dissemination of efficient forecasts. This can be achieved through improved scientific understanding, enhanced observation network and improved modelling technique through collaborative research. Improved telecommunication mechanism, along with coordination with media and disaster management personnel are given prime importance in this effort.

Besides, timely projects are undertaken for improved understanding and prediction through special observations in and around the tropical cyclones and utilizing improved modelling techniques.

Monsoon Prediction

Large-scale droughts and floods pose a grave concern for human existence across the world. In India, a few climatic rampages in recent times have adversely affected the country's agricultural production and economy, resulting in immense loss to life and property.

The forewarning capability has, therefore, become an important aspect in gauging our country's progressive stance. Finally, the efforts of over a century to predict the total summer monsoon rainfall have borne fruit, using empirical techniques involving local and global antecedent parameters that correlate with the monsoon. The revamped models permit a forecast in mid-April itself as against the fourth week of May in the case of the earlier model. Besides, the new scheme enables a mid-course correction in July, which could help minimize the impact of a deficient monsoon on agriculture. The linear and nonlinear regression

models as well as the neural network-based models perform reasonably well when the monsoon is close to normal but fail to predict the extremes with useful skill. A case in point is the failure of almost all empirical models in predicting the drought of 2002. Dynamical prediction of the seasonal moods like monsoon, using state-of-the-art facilities based on climate models, is currently being tested as a logical alternative to empirical forecasting. Unfortunately, the skill of prediction of the summer precipitation over the Asian monsoon region is currently rather poor for almost all state-of-the-art climate models. This is, in part, due to inadequate observations over the oceanic regions and largely due to inadequacy of the climate models to represent the complex monsoon climate. Various organizations around the world, including the one at IITM, Pune, are currently involved in research and development to improve the skills of monsoon prediction through such models.

It is a matter of common experience that the rains during monsoon do not pour continuously for all the four months. Rather they come in spells. There are periods of heavy rainfall activity over a large part of the country (monsoon is 'active') and there are spells of complete lull in monsoon activity (monsoon takes a 'break').

This becomes clear if we trace the history of rain over Central India for any year. A long break such as the one during July 2004 informs that severe drought will hit the country. It is found that almost all droughts are associated with long breaks. Similarly, more frequent or intense active conditions lead to floods in the country. Considerable research during the past two decades has led to a much better understanding of the spatial and temporal structure as well as the processes responsible for active-break cycles of the Indian monsoon. For example, it is now known that these spells result from a repeated northward migration of a large scale east-west oriented cloud band from near the equator to the foothills of the Himalayas. It is also found that although the active-to-break spells are not completely periodic, there is an underlying quasi-periodicity of about 45 days. Further, the spells strongly modulate the weather activity in the region with most of the lows and depressions occurring during active spells and getting clustered along the Indo-Gangetic plain. Therefore, foretelling of these active and break spells 15-20 days in advance would be very useful for water resource management of dams/reservoirs and planning agricultural activities (sowing, harvesting, etc).

Scientists at IITM, Pune have recently developed such a method for predicting active and break spells of about 20 days in advance. The prediction technique is based on a methodology known as the "analogues." With the help of the philosophy of analogue techniques, experts recall that active-break spells are a part of a quasi-oscillatory phenomenon. It has different phases where "active" and "breaks" represent peaks and troughs. The climatic condition at the prediction time may be identified with a particular phase of the oscillatory process. As data on clouds, rainfall and large-scale circulation fields, like winds and temperature, are now available for at least 25 years, we may see if the spatial pattern and evolutionary history of the current phase matches with the same at any time in the past. A reasonable match may be called a close analogue and it is possible to find such close analogues. Once such an analogue is identified, the evolutionary history in the past could be used to make predictions in future from the present state. If there is more than one analogue, averaged evolution from all analogues may be used for prediction. The technique developed

by IITM scientists is a major advancement in this field and shows useful skill up to four pentad (20 days). IMD has operationally implemented this technique for real time prediction of active-break spells during the monsoon 2008 season. These forecasts are routinely put out on the IMD, Pune website. Though these still need fine-tuning, there is reasonable hope of active-break cycle prediction in the 15-20 day range.

Agrometeorological Advisory Services

In spite of considerable technological advancement and improved irrigation facilities in recent times, Indian farmers seemed left out by a coordinated mechanism and continued to depend on fluctuating weather conditions in their yields. The Ministry of Earth Sciences has stepped in to fill the vacuum by creating a system that can help farmers take the best advantage of favourable weather conditions and minimize the adverse impact of unfavourable ones. Now the Agromet Advisory Service (AAS), that was earlier operating at the level of 127 agro-climatic zones, has micro-scaled its work by providing district-wise advisories. The changeover is significant considering that even within the individual zones, there are considerable variations in weather conditions as well as differences in terms of cropping system, farm operations and soil conditions. The AAS was upgraded in June 2008, and thus, an improved service was developed and rendered by NCMRWF Headquartered New Delhi, IMD generates the necessary weather forecast up to five days using weather models of both Indian and foreign agencies, the agro met-field units in state agriculture universities, institutes of the Indian Council of Agriculture Research (ICAR) and other such centres. At present, 515 districts of the country are covered with the agrometeorological advisory service, then get disseminated to the farmers through private television channels, FM radios and NGOs at the grassroots level, the All India Radio, Doordarshan, newspapers, district agriculture offices and the web-sites of IMD and universities.

Weather observing system

The Ministry has to set up 550 additional Automatic Weather Stations (AWS) and 1,350 Automatic Rain Gauge (ARG) stations in the first phase of its modernization plan to complement the existing 125 AWS. With this, every district in the country will have at least one AWS and two ARG stations. In addition to this, a network of 55 Doppler Weather Radars has been planned, of which 12 are to be commissioned in the first phase. Techniques have been developed to assimilate a large volume of satellite derived information, including that which will be available from the INSAT-3D to be launched next year. Through improvement in observation systems, it will be easier to define the initial conditions to run the numerical weather prediction models, which may lead to further improvement in weather forecast. As a part this programme, a set of 4 High performance Computing systems (HPCs) of IBM have been operational by March 2010 one each at INCOIS, Hyderabad and IITM Pune of 7.2 Tflop and two HPCs installed at IMD, NCMRWF with a capacity of 24.5 tFlops. These will augment substantially capability of Assimilation of data and use of coupled models, increase the resolution of the current GFS to T256L64 (horizontal resolution of approximately 35Km, strengthen Atmospheric Observing Systems by completing installation of over 550 systems, including AWS, ARG, DWR, GPS sonde, wind profiles, etc. Data processing System for INSAT 3D has been set up

for immediate operational use as soon as it is launched.

Weather forecasting system

Operational since 1 June 2008, the weather forecasting system has already started issuing quantitative district level forecasts up to five days, covering all the 613 districts. The products comprise quantitative forecasts for seven weather parameters like rainfall, maximum and minimum temperatures, wind speed and direction, relative humidity and the amount of clouds. Since no single numerical model, at present, is reliable enough over the Indian region, IMD is also generating these products using a multi-model ensemble technique whereby forecast outputs from the best set of numerical models available all over the world are assessed with appropriate weightage based on their individual performances. These include: T-256 model of NCMRWF, T-799 model of European Centre for Medium Range Weather Forecasting (ECMWF); United Kingdom Met Office (UKMO), National Centre for Environmental Prediction (NCEP), USA, and Japan Meteorological Agency (JMA). The products thus generated get subsequently disseminated to regional meteorological centres and IMD's own centres located in different states of the country. Upon value addition to these products, these offices communicate the same to 130 AgroMet Field Units (AMFUs) located within the State Agricultural Universities (SAUs) and institutes of ICAR.

Advisory Service Network and Information Dissemination

Based on the above forecast products and the crop information available from districts, the AMFUs prepare district-wise agro-advisories. It involves all stake holders such as SAUs, ICAR, Krishi Vigyan Kendras (KVK), Department of Agriculture & Cooperation, State Departments of Agriculture/Horticulture/Animal Husbandry/Forestry (up to district level offices), NGOs and media agencies. This project involves a five-tier structure which includes all the components of service spectrum like meteorological (weather observing and forecasting), agricultural (identifying weather sensitive stress and preparing suitable advisory using weather forecast), extension (two way communication with the user) and information dissemination (media, information technology, telecom) agencies. These weather-based advisories are being disseminated to farmers through the mass media and district level intermediaries as mentioned earlier as well as through Cell Phone-SMS, KVKs/District Agricultural Offices (DAO), Kisan Call Centres and NGOs. A mechanism has also been developed to obtain feedback from the farmers on quality of weather forecast, relevance and content of Agromet advisories and effectiveness of the information dissemination system.

Plans for Modernization of India Metrological Department

With the rains becoming more and more erratic in India, IMD is set to modernize its meteorological services through commissioning of various observation systems, their interconnectivity, and processing and efficient real time dissemination system. The entire modernization plan proposed in three phases consists of upgradation and/or procurement of various instruments in the field of communication, observation, forecasting system, cyclone warning, aviation, etc. The primary purpose is to ensure that every district has a weather monitoring equipment directly linked to the satellite for monitoring weather data in real time, which would provide data on air temperature, wind speed and direction, atmospheric pressure, relative humidity, rainfall, solar radiation and soil temperature and

moisture. During the last south-west monsoon, these systems were of immense use. For instance, the forecasters could study the movement of depression belts minutely and weather events were predicted more accurately. Since the system is automated, the recorded data have much higher level of accuracy. They are free from human errors such as inconsistent recordings from remote weather station with no trained personnel. The world over studies using network of AWS have shown marked improvement in local weather forecasts as required for cities, airports and ports. In order to implement the project in an expeditious manner, the modernization project has been split into 10 sub-projects. To ensure their smooth functioning, a well defined enabling as well as overseeing mechanism has also been put in place. A multilingual web portal for disseminating agrometeorological advisories for different parts of the country has been created and is being routinely updated from the Agrimet Centre of IMD at Pune.

The entire operation of IMD is based on collection of data from a large number of observatories and processing of collected information to produce deliverables for different segments of the society.

The accuracy of forecast/advisory depends on several factors, such as number of observing stations; quality of instruments being used for collection of data over ground as well as from upper air; quickness of the data reaching CRC from all stations without any distortion and methodology of processing data; and so on.

National Centre for Medium Range Weather Forecasting

For medium range weather forecasting Cray XIE and PARAM Padma computer systems were installed and acceptance tests were carried out. Real-time prediction of monsoon rainfall was made in the month of May 2006 for monsoon season. In 2005, an ensemble prediction system with the T80/L18 model was implemented. The latest version of NCEP Regional Spectral Model (RSM97) was experimentally run nesting with T80 global spectral model. Extended Range Monsoon Predictions were provided to IMD jointly with Space Applications Centre (SAC), Ahmedabad using 10 ensemble members. The Weather Research Forecast (WRF) model with 30 km horizontal resolution and 31 levels in the vertical was installed. In 2004, the centre started functioning from the new campus located in Noida and necessary computing facilities were established without affecting the operations. A Mesoscale Eta model at 10 km resolution was installed and tested in Linux environment to facilitate input with better lead-time to Wave Watch Model to forecast ocean state wind. The 3D-VAR assimilation system was successfully installed and tested to enable provision of better initial conditions for operational MM5/WRF model. Daily forecasts with a temporal range of 4 days were issued to 82 AAUs twice a week. All India weekly weather forecasts were supplied to crop weather watch group of the Ministry of Agriculture on every Monday. Medium range customized forecasts were provided to many user sectors, e.g. to ISRO for space vehicle launch, to Defence for Everest and other mountaineering expeditions, to agencies involved in water resource management and to power generation and transport sectors. Experimental seasonal forecast during monsoon 2006 and 2007 were generated and provided to IMD, Department of Science & Technology (DST) and MoES. NCMRWE contributed towards capability building in generation, use and interpretation of Numerical Weather Prediction (NWP) products.

OCEAN SCIENCE AND SERVICES

This mission primarily comprises conducting of basic research, operational generation and dissemination of products/services, deployment of observational network, development of ocean models, etc. The Ministry has a comprehensive ocean observation programme for acquiring *in-situ* data from the seas around India through Surface Drifting Buoys, Current Meter Arrays, Expandable Bathythermographs, and Tide Gauges. The International ARGO Project envisaged deployment of 3000 ARGO floats in the global ocean at a spacing of 300 sq. km. India has so far deployed 176 floats in the Indian Ocean, of which about 68 floats are active as on date. Besides, over 618 active floats deployed by other countries including India in the Indian Ocean are active. All the data acquired by the floats are available at Indian National Centre for Ocean Information Services (INCOIS), by virtue of India's active participation. A wide range of user-oriented data products being generated from the ARGO data are made available through INCOIS Ocean portal for effective utilization.

INCOIS, established at Hyderabad in February 1999, is a knowledge and information technology enterprise for the oceanic realm. INCOIS has been responsible for providing a wide range of coastal and ocean information advisory services. The MoES had formulated a programme to provide the fishing community with credible advisories on potential Fishing Zones (PFZ). The concerted efforts of scientists from ocean, space and fishery sciences in collaboration with the maritime states have resulted in the timely and reliable services of PFZ advisories. The integrated PFZ advisories are generated using both the Sea Surface Temperature (SST) and Chlorophyll based on the features such as oceanic fronts, meandering patterns, eddies, rings, and up-welling areas that are proven to be prospective sites for fish accumulation. The integrated PFZ advisories prepared in local languages and local measurement units are disseminated to over 225 nodes, thrice a week (i.e. Tuesday, Thursday and Saturday) during non-ban and cloud free days, through innovative and novel initiatives such as Electronic Display Boards (76 operational, currently) and Information Kiosks at the fishing harbours as well as through radio, print media, e-mails and web sites supplementing fax and telephone. This is the only short-term forecast available to the fishing community of the country. Besides, frequent and intense interactions, at the fishing harbours, between scientists and fishing community ensured better awareness and effective use of these advisories. Parallel affirmation and feedback are integral to this mission for which necessary institutional mechanism is in place. It has been observed, from the data collected from 295 Gill netters and 400 Ring Seiners off the Kerala coast, that the search time has been reduced by 30 to 70 per cent for pelagic fish due to the usage of these advisories and resulted in a saving of ₹ 1.50-6.00 lakh per vessel per year. This is an excellent example of providing the benefits of science to society.

INCOIS is providing Ocean State forecast to over 60 registered users besides sending the information through its website for coastal and offshore developmental activities. INCOIS has also established ARGO data centre for archival and dissemination of all the data collected from the ARGO floats deployed in the Indian Ocean. A set of 12 ARGO data products is also being made available in near real time through INCOIS website.

In January 2010, a unique ocean information service, viz., Indian Ocean Forecasting System (INDOFOS) was launched by INCOIS, Hyderabad by

integrating existing forecasts of ocean wave and the surface and subsurface parameters of the Indian Ocean. The system, at present, provides forecast on wave heights, wave direction, sea surface temperature (SST), surface currents, mixed layer depth (MLD) and depth of 20C isotherm up to 5-7 days in advance. This system is operational since January 2010. The beneficiaries of INDOFOS are: traditional and mechanized fishermen, the maritime boards, Indian Navy, Coast Guard, shipping companies and oil and natural gas industries, energy industries and academia.

Ocean Technology

The National Institute of Ocean Technology (NIOT), Chennai, an autonomous body of MoES was established to serve as the technical arm of DOD through a pool of highly trained personnel by taking up technology development and demonstration projects in major areas, viz. Ocean Energy, Deep Sea Technology and Ocean Mining, Coastal and Environmental Engineering, and Marine Instrumentation. NIOT has been working towards development of a wide range of technology for harnessing the vast ocean resources in sustainable way and to develop instruments for exploring the ocean science. One of the activities is development of technology for producing fresh water from sea water using the concept of low temperature thermal desalination (LTTD), in which fresh water is produced by flashing warm surface sea water under low vacuum conditions and condensing this vapour using deep-sea cold water. Though the process of LTTD is fairly well understood, the challenge lies in drawing the cold seawater using long pipes.

The rapid increase of world's population and non-uniform distribution of potable water has forced scientists to develop new techniques to generate potable water from sea water, as fresh water from natural sources is not able to meet the ever-growing demand.

Sea water is available in abundance; however, its conversion to fresh water is limited and restricted due to high cost of conversion. Various processes are being developed to reduce the salinity of sea water so as to make it fit for human consumption and use. The popular processes presently being used are distillation, reverse osmosis and electro dialysis. The selection of the right process depends upon the initial capital investment, plant capital, operation and maintenance costs, etc. Scientists all over the world are constantly working on developing economical processes to generate fresh water.

Current Endeavours

Considering the requirement of fresh water for both island territories and coastal mainland of India, two types of desalination plants have been developed, namely, Land-based Plant and Offshore Plant. The land-based plant is suitable for Lakshadweep islands, while the offshore plants are suitable for mainland India. The islands of the Lakshadweep are very small with no fresh water bodies such as ponds, lakes and rivers. The major source is mainly from the rainfall that occurs during the monsoon. The borewells are often contaminated with sea water. Thus an efficient desalination technique such as LTTD is one of the potential alternatives to the islanders.

Land-based Plants: A land-based plant of one lakh litres per day capacity was

installed in Kavaratti in May 2005. This LTTD desalination plant was developed indigenously by NIOT. The plant has been working continuously without any interruption and contributing significantly to the needs of the people of Kavaratti, and has improved the quality of their life. To date, this plant has produced over nine crore litres of water and the production often exceeds the designed capacity. On 3 March 2006, the LTTD plant at Kavaratti was handed over to the administration of Lakshadweep for operation, maintenance and supply of drinking water to the people of the island. Due to the safe and unpolluted drinking water supplied by the Kavaratti Plant since May 2005, the waterborne diseases, especially in children, have come down to less than 10 per cent. Based on all these benefits to the society, the Lakshadweep administration plans to have more desalination plants in each of the islands. Currently three more plants are being set up at Minicoy, Agatti and Androth, one of them is in the advanced stage of commissioning. A land-based plant of 100m³/day was set up at North Chennai Thermal Power Station (NCTPS) in May 2009. Apart from producing distilled mineral quality water or potable water, such use of LTTD provides an environmentally clean way to dissipate waste heat from the power plants.

Offshore Plant: In April 2007, a 10 lakh litre per day capacity plant indigenously designed and developed was commissioned on a barge, about 40 km off Chennai. This offshore demonstration plant was successfully run continuously for a period of several weeks. This was the first ever offshore LTTD plant with a single point mooring at 1000 m water-depth and laid cold water pipe vertically suspended below the vessel. Currently an offshore plant of 10 million litre capacity per day is being designed.

Due to the requirement of the cold sea water, such plants will necessarily have to be an offshore one, particularly for providing fresh water to the mainland. Efforts would be made to reduce the unit cost further by generating non-conventional energy. There have been several desalination plants maintained under low pressure of about 25 mbar installed and operational in various parts of the world. Mostly they are located in advanced countries and are based on the reverse osmosis technology. This process is power consuming and difficult to maintain, particularly for developing countries like India. On the other hand, the LTTD plant developed by NIOT is suitable for the tropical countries like India, where sufficient vertical temperature gradient exists.

Implementation Status: The LTTD-based desalination projects are environmental friendly and consume less power (less carbon emission) compared to the alternate desalination technologies. Currently the detailed design of the plant is being carried out for further analysis. The Ministry is also exploring the possible public-private partnership for operation and maintenance of the plant after its commissioning.

Mining the Ocean

India is the first country to be accorded status of a Pioneer Investor in mining the ocean, in 1987 and was allocated an exclusive area in the Central Indian Ocean by UN for exploration and utilization of resources. India is seeking to mine polymetallic nodules from the Indian Ocean bed found at a depth of about 6000 m. Indian scientists in collaboration with Russian scientists have developed

and tested an instrument to measure sea bed soil properties *in-situ*, at a depth of 5200 m. Also a project for the development of a Remotely Operable Vehicle (ROV) to operate at a depth of 6000 m has been taken up in collaboration with Russia. A prototype system was developed and tested successfully at a depth of over 5000 m in April 2010. The complete hardware and software for the instrumentation and control system has been developed by Indian scientists. This places India among the handful of nations that have capacity for deep sea mining.

In-situ soil property measurement system: As part of the Manganese Nodule Mining Programme, the next phase is to design a crawler for 6000 m operation. The challenges at 6000 m are high pressure of 600 bar, extremely soft sea bed and the varied topography of the ocean floor. In order to design a crawler capable of locomotion in the soft sea bed, it is essential that the sea bed property is measured *in-situ* which will provide undisturbed ground truth. This prompted the scientists to develop an instrument to measure the soil property *in-situ*. Accordingly, instrument has been developed jointly with Sevmorgeo, Russia to measure the soil property *in-situ*, at a depth of 6000 m.

This is the first time an instrument for *in-situ* soil property measurement has been developed and tested at a depth of 5200 m successfully by Indian Scientists. It is worth mentioning that India got elected as Member of the Legal and Technical Commission of the International Seabed Authority (ISA) for a period of 5 years from 2007.

GEOSPHERE AND SEISMOLOGICAL DISASTER

Early Tsunami Warning system

In the aftermath of the Great Sumatra earthquake of 26 December 2004, Government of India has set up the National Tsunami Early Warning system at INCOIS, Hyderabad, for Tsunamis in the Indian Ocean region, which was inaugurated on 15 October 2007. The system is operating on 24x7 basis and provides advance warnings of Tsunamis likely to affect the coastal areas of the country. As part of the Early Warning System for Tsunamis, a Real-Time Seismic Monitoring Network (RTSMN) has been set up by IMD. The network is designed to monitor and report, in least possible time, the occurrence of earthquakes capable of generating Tsunamis in Indian Ocean region. The data from the seismic field stations are transmitted simultaneously in real time through V-SAT communication facilities to the Central Receiving Stations (CRSs) located at IMD, New Delhi and INCOIS, Hyderabad for processing and interpretation. The CRSs are equipped with state-of-the-art computing hardware, communication, data processing, visualization and dissemination facilities. The earthquake information shall be disseminated through various communication channels to all concerned user agencies in a fully automated mode. The Warning System has been established by MoES as the nodal ministry in collaboration with DST, Department of Space (DOS) and the Council of Scientific and Industrial Research (CSIR).

Tsunamigenic zones that threaten the Indian coast have been identified by considering the historical tsunamis, earthquakes, their magnitudes, location of the area relative to a fault, and also by tsunami modelling. The Indian Tsunami Early Warning System comprises a real-time network of seismic stations, Bottom

Pressure Recorders (BPR) and tide gauges to detect tsunamigenic earthquakes and to monitor Tsunamis.

A state-of-the-art early warning centre has been established at INCOIS with all the necessary computational and communication infrastructure that enables reception of real-time data from all the sensors, analysis of the data, generation and dissemination of Tsunami advisories following a standard operating procedure. Tsunami warnings/watches are then generated based on pre-set decision support rules and disseminated to the concerned authorities for action, following a standard operating procedure.

The National Early Warning Centre (NEWC) generates and disseminates timely advisories to the Control Room of the Ministry of Home Affairs (MHA) for further dissemination to the public. For the dissemination of alerts to MHA, a satellite-based Virtual Private Network for Disaster Management Support (VPN DMS) has been established. This network enables early warning centre to disseminate warnings to the MHA, as well as to the State Emergency Operations Centres. In addition, messages would be sent by phone, Fax, SMS and e-mails to authorized officials. In case of confirmed warnings, NEWC is equipped with necessary facilities to disseminate the advisories directly to the administrators, media and public through SMS, e-mail, Fax, etc. The cyclone warning network of IMD and electronic ocean information boards of INCOIS could be effectively used for dissemination of warnings directly to the public.

A Standard Operating Procedure (SOP) was developed for generation and dissemination of Tsunami advisories on 24x7 basis. The efficiency of the end-to-end system was proved during the large undersea-earthquake of magnitude 8.4 that occurred on 12 September 2007 in the Indian Ocean.

In April 2008, the 5th IOC Coordination Group on Indian Ocean Tsunami Warning System (IOTWS) set up by UNESCO was endorsed as Regional Tsunami warning system for the Indian Ocean, to discharge the responsibility.

Seismology Centre

The seismology network needs to be increased to capture earthquakes of lower magnitude, which are required for precursor studies, and more detailed zoning of vulnerability. In addition it must be connected by telemetry to reduce the time lag of occurrence and detection. Such a system will be especially required for Tsunamigenic earthquake detection. A set of 10 broadband seismic observational network in the peninsular India were upgraded. For this, an Earthquake Risk Evaluation Centre was created in New Delhi to evaluate seismic hazards at a very high resolution so that its engineering applications are possible.

Microzonation Studies of Selected Urban Centres : Microzonation is a multi-disciplinary and multi-institutional effort, which has direct application in Disaster Mitigation and Management, Urban Development, Planning, Design & Construction, Risk Assessment to existing life and property, Defence Installations, Heavy Industry and Public Utilities and Services. During the last few years, efforts have been made to take up microzonation studies for Delhi, Guwahati, Sikkim and Bengaluru. While the microzonation of Guwahati and Sikkim has already been completed on 1:25000 scale, the work related to Delhi on 1:50,000 scale has just been finalized and the maps are being further refined on 1:10000 scale. Bengaluru microzonation is also progressing well and is expected to be completed soon. All these studies are now being coordinated by MoES.

CRYOSPHERE AND POLAR SCIENCE

Antarctic Treaty - India's 3rd Research Base at Antarctica

India was privileged to host the 30th Antarctic Treaty Consultative Meeting (ATCM) in May 2007 for the first time, ever since India joined the Antarctic Treaty in 1983 and was granted the consultative status. Amongst other significant outcomes of this meeting, was the ATCM's acceptance of the Indian proposal for a new Indian Research Base at the Larsemann Hills, East Antarctica, which paved way for India to proceed with final design of the 3rd station and its construction at the Larsemann Hills, Antarctica.

On the occasion of the 25th year of Indian presence in Antarctica, a special expedition to the Southern Ocean and Larsemann Hills of East Antarctica was launched onboard the Research vessel 'Akademik Boris Petrov' on 25 January 2006. The main objective of the expedition was to carry out swath bathymetric surveys in the approach to the Larsemann Hills area where India has proposed its new station. Scientists from NCAOR, IMD, Naval Hydrographic Office (NHO), Physical Research Laboratory (PRL), K Banerjee Centre of Atmospheric and Ocean Studies (KBCAOS) and Cochin and Goa Universities participated in the expedition to carry out various multi-disciplinary observations including biological, geological, physical, chemical, suspended particulates in oceans, aerosols, meteorology and atmospheric data and sampling.

During the 29th Antarctic expedition concluded by March 2009, the studies accomplished in the Larsemann Hills area for setting up the Third Station in the Antarctic including transportation of heavy equipment (American Crane - MANTIS) of 4 tons. India would be launching an expedition to South Pole with the American counterparts. The expeditions to Arctic and southern ocean were launched timely by December 2009 as scheduled.

Ice-core laboratory: The establishment of NCAOR at Goa, as an exclusive polar research laboratory, by the Ministry is a reflection of India's sustained and far-fetched interests in Antarctic science and protection of its environment. The Centre has been designated as the focal coordinating agency for the Indian Antarctic programme and is responsible for maintaining the Indian permanent station, Maitri, in Antarctica. The Centre has helped to consolidate and focus our scientific activities in the domain of polar sciences and also aims at conducting in-house R&D activities in exclusive areas, such as ice-ocean-atmosphere interaction and climate modelling, global change and Antarctica, palaeo-climate and palaeo-environment and Southern Ocean oceanography. The ice-core laboratory complex is now operational at the Centre. It will serve as repository of cores both from the Antarctica and the Himalayas. This is being used to infer past climate and environmental changes and will help the scientists to refine the climate models. An earth station has been set up at Maitri with a connectivity of 2mbps line for communication with mainland India.

Expedition to Arctic: India already has a strong presence in the Antarctica for the past 27 years. However, despite the scientific and logistics expertise gained by the country over the years in Antarctica, a wide gap exists in our knowledge of the Arctic, hindering a much-needed bi-hemispherical approach to polar sciences. The Arctic Ocean and the surrounding regions are one of the most important areas that not only

govern the earth's climate but have also faithfully recorded its past climatic history. The region is also an excellent harbinger of future change, because the signals or clues that signify climate change are so much stronger in the Arctic than elsewhere on the planet. This region has always been significant to the Indian subcontinent due to probable tele-connection between the northern polar region and Indian monsoon intensity, which is critical for our agricultural output and economy. However, the exact mechanism by which this tele-connection exists is still open to debate and is a topic of the ongoing research. In quest for knowledge and pursuit of science, India has recently embarked upon Arctic research by launching the first ever scientific expedition to this region under the leadership of Shri Rasik Ravindra, Director, NCAOR, Goa in the first week of August 2007 using the international research facility at Ny-Alesund in Spitsbergen island of Norway. The first Indian Arctic Expedition has marked a beginning of long-term scientific research by the Indian scientists in yet another arena of global scientific collaborative research in the difficult polar regions. The five member interdisciplinary and inter-institutional team of scientists of the first Arctic Expedition drawn from NCAOR, Goa; Centre for Cellular and Molecular Biology (CCMB), Hyderabad; IITM, Pune and Lucknow University, initiated three projects on Atmospheric Studies, Arctic Microbes and Earth Sciences. In the second phase, four more projects had been initiated in the early spring with the launch of winter expedition in February 2008. The name of the Indian Arctic Station is Himadri set up at the base camp in Norway.

NON-LIVING RESOURCES

Polymetallic Nodule Programme

As allocated by UN for exploration and utilization of nodules in Central Indian Ocean Basin, India is presently having an area of 75,000 sq km, located about 1600 Nm away from her southern tip. India is one among the top 8 countries/contractors and is implementing a longterm programme on exploration and utilization of Polymetallic Nodules. As part of the Manganese Nodule mining programme, a crawler, *in-situ* tester and ROV were designed, developed and tested at depths of 410m, 5200m and 205m, respectively. For extraction of metals, 3 primary process routes were tested on the semi-continuous demonstration pilot plant set up at Hindustan Zinc Limited, with successful extraction of Copper, Nickel and Cobalt from Polymetallic Nodules.

Indian Continental Shelf Programme

This is a major multi-institutional national endeavour that seeks to establish the outer limits of the country's continental shelf. Following India's ratification of the convention in June 1995, it was mandatory for the country to lodge her claims for an extended shelf latest by May 2009. The Indian endeavours towards this national goal were being spearheaded by NCAOR. Underpinning the efforts is a comprehensive multi-institutional marine geophysical data acquisition programme which commenced in July 2002. Spreading over 385 days of fair-weather period, more than 31,000 km of seismic reflection gravity and magnetic data were collected from the project area. In addition, for the first time in the country, 90 state-of-the-art Ocean Bottom Seismometers (OBS) were successfully deployed along several seismic transects to constrain the velocities from the reflection data and to develop a crustal model of the area. The post-processing and interpretation of the data have been undertaken by three of the leading National Institutes, viz., NCAOR, NGRI and NIO. As per the provisions of United Nations Convention on the Law of the Sea (UNCLOS) the

documentation is currently in progress. India was elected a member of the Commission in 2007.

During the year 2009-10 the Ministry had undertaken a bilateral programme to conduct geophysical survey as required by the Community Learning Centres (CLCS) for Myanmar. A workshop has already been organized at NCAOR, Goa for the scientists of Myanmar to provide hands-on training on the analysis of geophysical data. A total length of 2759 km has been surveyed for collection of geophysical data in the Exclusive Economic Zone (EEZ) of Myanmar.

The Ministry with the support of the research institutes completed the entire work relating to data/analysis of sea-bed sedimentation etc. in order to stake India's claim to the continental shelf by the prescribed dead line of the 12 May 2009. India made a partial submission in pursuant to Article 76 of the 1982 UNCLOS towards the establishment of the outer limit of its continental shelf on 11 May 2009, as per the decision of Cabinet.

Gas Hydrates

Considering the vast potential of various resources including the gas hydrates in the EEZ of India, a comprehensive bathymetric survey of EEZ was also taken up during 10th Plan (2002-07). An Indo-Russian Gas hydrate centre was established to address the technological aspects.

COASTAL AND MARINE ECOSYSTEM

Marine Living Resources

A dedicated programme was launched for systematic scientific assessment of living resources in the seas around India through a network of Fishery Research and other organizations. This programme is being coordinated by Centre for Marine Living Resources and Ecology (CMLRE), Kochi. Considerable progress has been made towards the development of drugs from the marine organisms during the last two decades. Clinical tests of two compounds (antidiabetic, antidyslipidemic) derived from marine organisms are in the advanced stage of drug development. Besides, some lead compounds found to have potential antibiotic, antiviral, antileukemic activities have also been taken up for toxicity and clinical trials.

Lobster Fattening Technology

National Institute of Ocean Technology (NIOT), Chennai, successfully developed and disseminated the viable technology for fattening lobsters and mud crabs in cages to select beneficiaries in the Gulf of Mannar in Tamil Nadu and Andaman Islands, on an experimental basis. There has been a substantial improvement in earnings of coastal fishermen due to implementation of this scheme. The technology for seaweed culture will be extended to 100 women beneficiaries in the Gulf of Mannar region, 25 each for lobster fattening (Gulf of Mannar) and crab fattening (Andaman & Nicobar Islands). Besides, NIOT has also deployed a set of 28 Fish Aggregating Devices in the Arabian Sea for the benefit of fishing community in the Lakshadweep Islands.

Ornamental Fish Culture: In February 2010, a field Research station was established at the Agatti Island, Lakshadweep for hatchery technology for captive breeding of marine ornamental fishes for the economic benefit of the local population.

Integrated Coastal and Marine Area Management

The Integrated Coastal and Marine Area Management (ICMAM) programme initiated in 1998 aims at facilitating the use of scientific tools and techniques in addressing the coastal problems like erosion, pollution and habitat degradation. Remote sensing and Geographic Information System (GIS) have been applied in the assessment of status of health of mangroves, coral reefs and other biologically important areas and also their integrated management. Use of mathematical modelling in assessing the coastal erosion and development of remedial solutions has been demonstrated at Ennore (Tamil Nadu), Panathura and Kayangkulam (Kerala) and Mangalore (Karnataka). Projects of similar nature are being taken up at Gopalpur (Orissa), North Kanara coast and at selected locations in Kerala. A major initiative has been taken for modelling coastal ecosystems, especially at Kochi backwaters, Chilka lake and Sundarbans. As an aid to the pollution control activities, mathematical modelling techniques have been used to estimate waste assimilation capacity of sewage at Ennore, Tapi (Gujarat) and Hooghly (West Bengal). Further, seawater quality criteria have been developed for mercury, copper and cadmium using modern ecotoxicological experiments and determination of such values is in progress for other major pollutants.

Coastal Ocean Monitoring and Prediction System

A major long-term programme to assess the health of marine environment has been operational since the year 1990. Levels of chemical elements indicating the contamination of seawater due to disposal of untreated sewage and industrial wastes both from point and non-point sources are being determined at 76 locations along the coastline of the country. It has been found that the sea beyond 2 km from the coast is clean at all the locations except off-Mumbai where the sea beyond 5 km is clean. The major pollutant along the coastal water is the untreated sewage as indicated by moderate to high numbers of pathogenic bacteria at all the 76 locations in the sea. The coastal water of Mumbai, fishing harbour at Veraval, nearshore water of Veli in Kerala are severely polluted. Moderate levels of pollution are also noticed at Hazira, Kochi, Cuddalore, Tuticorin, Ennore, Vishakapatnam, Puri and Sandheads (W.Bengal). The sea water is found to be free from the contamination of pesticide residues such as DDT and HCH.

OCEAN RESEARCH VESSELS

Recognizing the necessity of research vessels for conducting Marine Scientific Research, the Department of Ocean Development acquired two state-of-the-art Research Vessels, viz. (ORV) Sagar Kanya and ORV Sagar Sampada in 1983 and 1984, respectively. These Research Vessels are equipped with advanced scientific instruments to conduct multi-disciplinary research and contributed in a major manner to the advancement of oceanographic and atmospheric research in India, for nearly two decades. So far Sagar Kanya and Sagar Sampada conducted over 230 and 247 cruises, respectively, in the Indian Ocean including the Southern Ocean for the exploration and exploitation of living and non-living resources including Antarctic Krill resources. ORV Sagar Kanya underwent a major dry-docking and is now equipped with a new DP system and up-gradation of generators, bow thruster power management system, and a state-of-the-art Multibeam Swath Bathymetric System. Besides undertaking over 10 cruises for over a period of 140 days at sea, an Integrated campaign for Aerosol, Gases & Radiation Budget (ICARB), under ISRO-GBP for observations over Bay of Bengal and Arabian Sea, was successfully completed through

a cruise of more than 50 days with the participation of 29 Scientists/Technical personnel from Space Physics Laboratory (SPL), Vikram Sarabhai Space Centre (VSSC), PRL, IITM, Centre for Earth Sciences Studies (CESS), Sri Krishnadevaraya University (SKU), Indian Institute of Remote Sensing (IIRS), Indian Institute of Chemical Technology (IICT), Gauhati University (GU), Regional Research Laboratory (RRL), Indian Institute of Technology Kanpur (IITK), Andhra University (AU), NPL, IISc, IMD, Indira Gandhi Centre for Atomic Research (IGCAR) and Norinco, and collected various samples/data. For the first time, ORV Sagar Kanya undertook a survey over approximately 600 lines km covering 92 sq. km for recovery of failed GSLV engine. Three step-on engines S3, S2 and S1 were recovered and many parts of the S4 stage engine/core vehicle were collected from the bottom of the sea. Around 550 diving operations were carried out along 94 target points. The recovery of GSLV subsystems from sea is second such attempt in space history (after recovery of Ariane by European Space Agency in 1996).

During 1998, two Coastal Research Vessels, viz. Sagar Poorvi and Sagar Paschimi were acquired to specifically monitor coastal pollution aspects. In 2006, a Buoy Tender Vessel "Sagar Manjusha" was commissioned to cater to the needs of ocean observation systems.

To harness various non-living resources in a sustainable way, a suitable platform like the Technology Demonstration Vessel (TDV) is essential. In 2005, a programme for acquisition of a new multipurpose vessel for technology was taken up. A Technology Development Multipurpose Vessel "Sagar Nidhi" was designed, built in record time and launched in 2007. This vessel will also cater to shallow water survey, and act as a supply and support platform for the various coastal and deep ocean activities planned by the Ministry. It is capable of conducting multi-disciplinary studies in the sea continuously for 45 days with 30 scientists onboard and is equipped with state-of-the-art facilities for launching and testing various items of marine equipment including Remotely Operated Vehicle (ROV), Autonomous Underwater Vehicle (AUV) and Manned Submersible.

CLIMATE CHANGE STUDIES

The Ministry has taken up a programme to set up a dedicated centre at Pune to address various scientific issues relating to climate change, including impacts on sectors like health, agriculture and water. With the mandate to explore and assess targeted scientific facets of climate change that are of high relevance to the Indian region along with their global linkages, an exclusive programme on climate change science has been initiated. It would create research infrastructure; integrate existing research teams and develop new groups through the development of institutional research network; develop collaborative linkage with international institutions to enhance research capabilities; and coordinate systematic observation programmes for climate change-related parameters including fluxes over Indian region and ocean in the neighbourhood. In tune with the mandate of basic research for advancing the prediction of tropical weather and monsoon climate, IITM has made fundamental and noteworthy contributions during the past three years in areas of monsoon prediction, monsoon variability, climate change and climate variability, modelling of atmospheric chemistry and air quality measurements. A few of the salient contributions are listed as follows:

(a) IITM has developed empirical models for long-range prediction of seasonal mean monsoon rainfall and Indian summer monsoon rainfall and its variability by

using an atmospheric model as well as by developing an intermediate atmosphere-ocean coupled model.

(b) For the first time in the country, projections of Indian summer monsoon under different climate-change scenarios have been made through downscaling with the latest version of Hadley Centre Regional Climate Model. The scenario data products have been distributed to several impact assessment groups in the country.

(c) The first evidence of a significant rising trend in the frequency and intensity of heavy rain events, and decreasing trend in the frequency of light-to-moderate rain events over central India in the monsoon season during 1951-2000 has been produced and its connection with global warming has been projected.

(d) Discovered a coupled feedback between the tropical Indian Ocean circulation and the south-west monsoon winds, on Sub-seasonal/intra-seasonal time-scales, which is pivotal in forcing long-lasting breaks in the monsoon rainfall over India and occurrence of droughts over the subcontinent.

(e) Lidar Group scientists at IITM developed an Excimer laser-based DIAL (Differential Absorption Lidar) technique for vertical profiling of ozone up to stratospheric altitudes at the Institute and measurements of vertical profile of ozone were made at Pune for the first time in the country.

(f) A new insight as to why all El Ninos are not associated with monsoon droughts has been unravelled. The El Nino events with the warmest Sea surface Temperature (SST) anomalies in the central equatorial Pacific are more effective in focusing drought producing subsidences over India than events with the warmest SST in the eastern equatorial Pacific.

BIOTECHNOLOGY

Biotechnology is a set of rapidly emerging and far-reaching new technologies with great promise in areas of sustainable food production, nutrition security, health care and environmental sustainability. Biotechnology is globally recognized as a rapidly emerging, complex and far reaching new technology. Biotechnology can, over the next two decades, deliver the next wave of technological change that can be as radical and pervasive as that brought about by IT. In the recent years, biotechnology industry has been growing at a rate of 40%. Though the growth was achieved mainly through leadership in biogenetics and contract manufacturing, research leading to innovative product development did not lag behind. The social impact of such growth is evident from India assuming a dominant place in vaccine exports, diagnostics, transgenics (BtCotton) and a number of biotherapeutics. There is a projection of an annual turnover of US \$ 10 billion for India by 2010 and a speculated about 25% annual growth rate between 2010 and 2015. In the area of health care, new vaccines and diagnostics have been indigenously developed and are under clinical trials. A major initiative has been taken to develop stem cell research in the country and 6 centres have received programme support. A road map has been formulated and city clusters established to forge interdisciplinary collaboration, crucial to this sector. Cutting edge research in areas of tissue engineering, bio-medical devices, biomaterials, nano-biotechnology and RNAi is being supported. A special initiative for devices and formulation required for a national programme on maternal, neonatal and child health has been initiated. In the area of agriculture biotechnology the focus is on nutritional enhancement, increased productivity and development of crops resistant to biotec and abiotic stresses. Establishing Centres of Excellence has received special attention during the

current year to achieve re-engineering of certain institutes for greater innovation and focus.

HUMAN RESOURCE DEVELOPMENT

Presently, 63 Post Graduate teaching programmes in various areas of biotechnology namely General Biotechnology, Agricultural Biotechnology, Animal Sciences, Medical Sciences, Marine Sciences, Neurosciences, Industrial Biotechnology, Molecular and Human Genetics, Environmental Biotechnology and Pharmaceutical Biotechnology, M. Tech Biochemical Engineering and Biotechnology, in addition to seven Post Graduate diploma in bio-safety and regulations, animal cell culture etc. are being supported all over the country. Around 1000 students are admitted for these courses through an All India Common Entrance Examination. There is a provision to give industrial exposure to PG students for six months with an aim to bridge gap between skilled set of students produced by universities and requirements of the industry, under Biotech Industrial Training Programme (BITP).

The Department started JRF programme from 2004. 100 JRFs are selected through Biotechnology Eligibility Test (BET) conducted by University of Pune and fellowships are provided initially for a period of 3 years which may be extended up to five years. The programme is also being extended to students with Medical and Engineering background. Post Doctoral Fellowships (PDFs) are given to 100 fellows each year and selection is done by IISc. Bangalore.

There is provision for upgrading skills of mid-career scientists faculty involved in undergraduate and post graduate teaching by participation in short term training courses in leading institutions in the country and specialized training in overseas laboratories.

BIOTECH FACILITIES AND PROGRAMME SUPPORT

Six Centres of Excellence have been supported so far in the areas of genetics and genomics of silkworms; co-ordinated research on tuberculosis, design of novel inhibitors against infectious disease agents, high-throughput allele determination for molecular breeding of crops and for developing high throughput molecular approaches for rice breeding. In addition, eleven proposals have been supported so far in Programme Support mode in the areas of therapeutic proteins, novel yeasts, abiotic and biotic stress tolerance in crop plants; cancer biology and therapeutics, nutrition genomics, human genetic disorders, micronutrient deficiencies, immunotherapy of cancer and leishmaniasis, translational research on transgenic rice and diagnostics for neglected infectious diseases.

AGRICULTURAL BIOTECHNOLOGY-CROPS

In a project to identify, map and transfer desirable alleles at QTLs for yield and yield components and stability and also to generate QTL bear isogenic lines of rice, and agronomic evaluation of BC2F4 Near Isogenic Introgressions lines (NIILs) as many as 200 BC2F5 progenies were evaluated for the second consecutive year during summer 2006 in multi-location trials. A new triticale line involving Himalayan rye and indigenous wheat genotypes has been synthesized to be further utilized as a diverse source for obtaining certain important wheat-rye translocations. In project on functional genomics of rice aiming at discovery and functional validation of genes,

novel genes conferring bacterial blight (BLB) resistance have been discovered in accessions of wild species like *O. longistarminata*, *O. nivara*, *O. glaberrima* and *O. barthii*; land race accession Ac32753 and a few mutant lines of IR64. Gall midge resistance genes Gm 1 and Gm4 are being fine mapped to within 10cM of 2 MB region of the genome. In the network project on programme on development of Salinity and dehydration stress tolerance in rice, a gene encoding fructose 1, 6 bisphosphate was cloned to full length from *Portresia* (PCFR) and this enzyme was found to be active in the presence of NaCl. In the project on multi-site Evaluation of Transgenic Mustard (DMH-11) based on barnase-barstar system, the National Research Centre of Rapeseed-Mustard, Bharatpur conducted these trials along with four checks, viz. CMS based hybrid (DMH-1), National Checks (Varuna and Kranti) and a zonal check, at 10 locations during the year 2006. It was observed that higher yield of DMH-11 over the best check variety was recorded in 6 out of 9 locations. In the project on development of Transgenics Cotton for Resistance to Insect Pests, around 300 independent transgenics lines in cotton (Coker 310-FR) carrying the cry 1Ac gene for attaining resistance to *Helicoverpa armigera* developed. In most of the transgenics the cry1Ac gene is under the control of the double enhancer CaMV 35S promoter. Improvements have also been made in the transformation protocol of cotton which allows the use of Imidazolinone as a selection agent instead of kanamycin by using a double mutant acetolactate synthase gene as marker.

BIOFERTILISERS

With growing environmental concerns, the sole dependance on chemical inputs-based agriculture is being replaced by integrated approach involving conjunctive use of both organic and inorganic sources. In this context, biofertilizers have been well accepted as an economical, cost effective, renewable and safe organic source of plant nutrients to sustain crop productivity. Moreover, with recent focus on organic/bio-dynamic farming, the demand of biofertilizers is likely to grow at a much faster rate than before. At this juncture, we must realize that microbial inoculants are 'ecological inputs', whose effects are 'subtle and not dramatic' like chemical inputs. Hence, inoculation with good quality inoculants is a must and should be treated as an insurance against failure of nodulation. The shelf life both in the store and transit needs to be improved with due consideration to various 'abiotic' stresses. The quality-oriented production and marketing network will certainly make biofertilizers a viable enterprise for ultimate customer satisfaction. Keeping these in view, programmes on development of liquid biofertilizers and biofertilizers-based Integrated Nutrient management packages for plantation crops and medicinal plants have been generated.

BIOPESTICIDES AND CROP MANAGEMENT

The programme is directed towards the management of pests, diseases and weeds of economically important crops as well as development of commercially viable mass production technologies. A number of potent and cost effective methods of biological pest control were successfully developed. Formulations were prepared and tested successfully against viral and fungal infections of various crops. Genetic improvement of various species of entomopathogenic nematodes for enhanced efficacy and tolerance to environment, e.g. temperature etc. was achieved and found to be effective against insect pest of pigeon pea, rice stem borer, gram pod borer, cardamom root grub,

sucking pests of cotton etc. Conservation and augmentation of two predators, viz. *Dipha aphidivora* and *Microuns igorotus* was achieved, which suppressed sugarcane wooly aphid populations. Pheromones were found to be quite effective against various species of bollworm, viz. pomegranate fruit borer and sucking moths of sweet orange. Pheromones dispensers, suitable for Indian conditions were also developed. Insecticidal toxin genes of various plant species and various novel bacterial strains are being done to develop a potent biopesticides formulation. The multicentric programme on the management of *Parthenium* launch to control the weed and for its possible economic potential is progressing well. At the initiative of DBT, guidelines for registration of biopesticides have been simplified and streamlined. In order to promote and facilitate the commercialization of biopesticides, 10 biopesticides have been taken up for generation of toxicological data, both for primary cultures as well as for their formulations. A comprehensive website on "Bio-pesticides" has been developed which highlights the achievements made in major programmes supported by the Department on biological control of pests, disease and weeds.

NATIONAL BIORESOURCE DEVELOPMENT BOARD

Programmes under the Board continued in the area of Biodiversity Characterization and Inventorization, Bioprospecting, improvement and utilization of resources and Capacity Building. A web portal Indian Bioresource Information Network (IBIN) has been launched as a single window access to spatial and non-spatial data. This unique effort is the first of its kind which overlays all spatial information with ground level species information, the address to providing details of the genetic level studies being conducted. Study on Mapping and Quantitative Assessment of Plant Resources continued for Eastern Himalayan Region, Western Ghats and Eastern Ghats. The country's first Butterfly Park at Bannerghatta Biological Park, Bangalore was inaugurated on 25 November 2006. The Park houses more than 2000 butterflies at any given time representing 42 species. The uniqueness lies in the research activities continuing specially for rearing technologies, DNA Barcoding etc.

Under the Zingiber network, programmes have been supported on biochemical and molecular characterization in relation to commercially useful traits, prospecting for selected secondary metabolites and domestication of some underutilized species of ornamental value. Under the Tea Research Network, a major new initiative has been taken on generation and analysis of Expressed Sequence Tag (EST) and also integrated genetic linkage map and marker assisted selection. A network programme has been launched for the Indian Coffee Genome Research under which CDNA libraries and ESTs are being developed. Under the Sugarcane Genomics a major achievement has been the development of PCR based diagnostic kits for red rot and smut diseases which is presently undergoing validation. Under the Bamboo Demonstration programme nearly 380-ha has been planted with tissue culture material. In addition R&D programmes have also been supported for developing and standardizing tissue culture protocols for other priority bamboo species.

MEDICINAL AND AROMATIC PLANTS

Four gene banks have been further strengthened with respect to collection, conservation and characterization of more number of germplasm accessions. A rapid and highly reproducible protocol for *in vitro* propagation of *Picrorhiza scrophulariflora* has been developed. High yielding lines of *Nothapodytes nimmoniana* with more than 1% camptothecin were identified from Western Ghats.

Evaluation of the performance of elite tissue culture plantlets vis-a-vis stem cuttings of vanilla (*Vanilla planifolia*) in farmers' field over an area of 20 ha. in Tripura state has been initiated. Cell-cultures of *Commiphora wightii* were grown in 2 litre stirred tank and 6-litre airlift bioreactor for guggulsterone production. A network project on development of standardized herbal product for bovine mastitis has been initiated. Purified pectic polysaccharide from *Aegle marmelos* have shown significant *in vivo* anti-leishmanial activity. Root extract of *Clitoria ternatea* and taraxerol showed significant inhibition of acetyl cholinesterase activity and cognitive enhancing property. RAPD and minisatellite profiles of the sandalwood (*Santalum album*) populations of the southern regions of India have been generated. Work on cloning and characterization of regulatory elements of genes involved in picrosides biosynthesis in *Picrorhiza kurrooa* has been initiated. The full length 4, 11-diene synthase gene involved in sesquiterpene biosynthesis regulation in *Artemisia annua* has been cloned. Four genes of isoquinoline alkaloid biosynthetic pathway in *Papaver somniferum* have also been cloned.

PLANT BIOTECHNOLOGY

The thrust of the activities was on plant tissue culture for mass multiplication of desired planting material, use of molecular markers for characterization of genetic diversity and superior accessions with reference to identified desirable traits, molecular biology tools for production of improved varieties through transgenic and molecular breeding approaches. Projects in the area of horticulture crops focused mainly on production of disease free quality planting material, improvement of crops, with specific reference to extended shelf-life and genetic characterization studies. Potato, onion, brinjal and okra have been identified and programmes have been supported. Project to study the signal transduction cascade events for both biotic and abiotic stress, hormones, light, etc. were supported. An International Solanaceae Genome initiative was launched. Both structural and functional genomics studies are being supported. Public Private model has been worked out and projects in the area of Biofuels are being supported for the industry.

ANIMAL BIOTECHNOLOGY

New programmes were initiated in the area of animal nutrition and development of newer animal vaccines. Standards were developed for estimation of mycotoxins in animal feed and distributed to various laboratories for routine analysis. A novel and potent anthrax vaccine which includes mutants of lethal factor and edema factor was developed which provides better efficacy *in vivo*. An attenuated buffalo pox virus vaccine was developed and its field trial is under way. Vaccines for Rabies, *Clostridium*, Hemorrhagic septicaemia, Foot and Mouth disease, Bovine brucellosis, Bovine tuberculosis etc. are in various stages of development. Phage display technique was used as an alternative to hybridoma to produce mono specific antibodies against recombinant gag antigen of Bovine Immunodeficiency Virus. Diagnostics for paste des petits virus and buffalopox virus were developed and validated successfully. A RT-PCR assay was standardized for specific detection of Border disease virus and a nested PCR was also developed for differentiation of Border disease virus. Bovine viral diarrhoea virus 1 and 2 Multicentric programme on Buffalo Genomics was implemented with focus on identification of genes of economic importance. Structural and functional aspects of 3D scaffold of bovine origin for cardio myocyte culture are being studied. Effects are also on to develop biomaterial of bovine origin for reconstruction surgery in animals.

AQUACULTURE & MARINE BIOTECHNOLOGY

Programme on biosurfactants, exploration of marine enzymes, bioactive molecules, reproductive biology and cell cycling, plasmid immune response, neuro-peptide synthesis, bioreactors, vaccine development for fish, bacteriophage therapy in improvement of shrimp larvae, oligonucleotide probe for monitoring vibrio counts in hatcheries, genetic characterization of marine organisms, organ development, cell lines from seabass, shrimp genomics and fish nutrition are being implemented. Biosurfactants were screened using marine *Acinetobacter* *genospecies*. A prototype for raceway based shrimp production technology was utilized for nursery rearing of shrimp. Studies on occurrence of human pathogenic viruses in coastal marine waters were carried out. Marine cyanobacteria and chlorella species were studied for over expression of superoxide dismutase enzyme useful for bioremediation and salt tolerance. Bioactive molecules were explored for antibacterial, antiviral and anticancer agents. Role of bacterial plasmid gene was studied in pathogenesis of Epizootic Ulcerative Syndrome and its virulence. Applications with the use of phytase were explored from yeast as an alternate fish feed supplement. Neuro-peptides synthesis was explored from Indian cone snails and conus peptide sequence was worked out. A bioreactor was under development for microbial based treatment system for seafood industrial discharge. Vaccine development for fish for *Aeromonas* showed promising leads. Bacteriophage therapy in improvement of shrimp larvae was pursued as an alternative to antibiotics in aquaculture. Oligonucleotide probe for monitoring vibrio counts in hatcheries were designed. Organ development and differentiation were studied using perivitelline fluid of Indian Horse Shoe Crab.

SERIBIOTECHNOLOGY

Screening of silkworm germplasm for baculovirus resistance in silkworm (*Bombyx mori*) has resulted in identification of three each of bivoltine and multivoltine strains under a network project. Microsatellite analysis carried out in muga silkworm (*Antheraea assama*) populations indicate genetic variability in hill populations as compared to plain area populations. A *Bombyx mori* gene that code for antiviral protein has been partially characterized. A collaborative project has been initiated on epidemiology, spatial and temporal dynamics of diseases of muga silkworm. Under the Indian initiative on International Consortium on Lepidopteran Genome Project, functional annotation of unique putative genes of muga silkworm has been carried out. Field evaluation of mulberry transgenics (with HVA-1 gene) for abiotic stress tolerance has been initiated. A few epicuticular wax related gene fragments having homology with *Arabidopsis* have been cloned from mulberry. Under a network project, screening of mulberry germplasm for disease response to powder mildew, tukra and nematode has been completed. A new programme on biotechnology in tassar sericulture has been recently initiated in collaboration with Central Silk Board.

BASIC RESEARCH IN MODERN BIOLOGY

Research highlights for basic research in Modern Biology include: promising results for improvement of the oral bio-availability of cyclosporine and reduction of nephrotoxicity associated with the commercial formulation at NIPER, Mohali; Studies carried out at Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum, using an *in vitro* cell culture model to evaluate the response of adult rat cardiac fibroblasts to hypoxia; IISc Bengaluru revealed that UdgB plays a significant role in mycobacteria; Scientists at IMTech., Chandigarh showed that *phoP* Promoter activity is negatively auto-regulated by PhoP through sequence-specific interaction(s)

involving 3 direct repeat subunits with a 9-bp consensus binding sequence. Studies carried out at IISc, Bengaluru indicated that both MBP and Pre MBP are more prone to aggregation under crowded conditions with preMBP showing a greater extent of aggregation; Scientists at School of Life Sciences, JNU studied delineation methods to explore the physiological role of SMARCAL 1; Scientists at IISc., Bangalore revealed that the stabilizing contacts in the folded conformations of glycodefins are different; Scientists at CDRI, Lucknow used NMR spectroscopy to solve structure of *Mycobacterium tuberculosis*, *Escherichia coli*, and *Homo sapiens* peptidyl-TRNA hydrolase. A structural model based on *E. coli* Pth crystal structure, was generated; Crystallographic analysis of PffBZ of *Plasmodium falciparum* carried out at IISc., Bengaluru revealed new strategies in the design of novel antimalarials; Studies done at JNU, New Delhi suggested that *D. discoideum* under oxidative stress exhibits PARP mediated caspase independent paraptotic cell death; Oxidative stress induced DNA damage in ICSI being investigated at IIT Kharagpur revealed a positive correlation between ROS and sperm morphology and its DNA damage; Scientists at ICgeb, New Delhi characterized CIPK protein and showed that the protein contains autophosphorylation activity; Scientists at IIT, Kharagpur attempted to make folate-nanoparticle conjugate by grafting folic acid through some biocompatible nonpolymeric coupling agent and Scientists at University of Madras, Chennai are using biophysical techniques, chiefly X-ray crystallography, but also computer modelling, UV spectroscopy and gel mobility, to study the structures of DNA junctions, such as three way and four-way junctions, as well as unusual DNA packing modes that lead to novel microstructures.

MEDICAL BIOTECHNOLOGY

Concerted efforts have been made towards development of vaccines and diagnostics for the major infectious and non-infectious diseases specially in the areas of tuberculosis, avian influenza, Chikungunya, rotavirus, typhoid, malaria and HPV. New DBT-ICMR collaborative efforts have been initiated on HIV/AIDS and Microbicides research. Emphasis was laid on setting up virus research network projects. Typhoid vaccine development technology was transferred to an industry for further cGMP grade production, pre-clinical and clinical studies. A rapid diagnostics test system for filariasis (Signal MF) developed by Anna University, Chennai has been commercially launched. Efforts have been initiated to study molecular evolution and for the development of cost effective and easily upscalable multivalent vaccine for avian influenza (H5N1). Studies on development of a lentivirus based high efficiency gene transfer vector has culminated in development of indigenous gene transfer vector with novel features of versatile multiple cloning site with expanded cloning capabilities. An agreement has been signed between DBT and IAVI to pursue the biomedical research programme towards vaccine development of HIV/AIDS, and collaborative programme Neutralizing Antibody Consortium is going to be initiated soon. Follow-up actions have been initiated on the leads available towards development of newer diagnostic systems, better therapeutics, RNAi and newer vaccines.

STEM CELL

Stem cell biology is a promising and emerging field of the life sciences. The potential of stem cell technology to develop therapy for many untreatable diseases through cellular replacement or tissue engineering is widely recognized. Keeping in view its

potential therapeutic applications, both basic and translational research are being promoted by the Department in various institutions, hospitals and the industry. Till date, more than 55 programmes have been identified and supported on various aspects of stem cell research. These include generation of human embryonic stem cell lines, differentiation of pancreatic progenitor cells to insulin secreting cells, isolation of multipotential adult progenitor cells from bone marrow and their clonal expansion, use of banana lectins for stem cell preservation, hematopoietic stem cells (HSC) for haplo-identical HSC transplantation, use of limbal stem cells for ocular surface disorders, isolation and characterization of mesenchymal and liver stem cells, *in vitro* differentiation of human embryonic stem cells to neural and non-neural lineages, cardiac stem cells, embryonic stem cells etc.

Disease specific brainstorming sessions have been organized in the area of cardiac, stroke, limb ischemia and orthopaedics to explore the potential applications of stem cells in these areas. "CMC-DBT Centre for Stem Cell Research" has been established at CMC, Vellore to carry out basic and translational research. Multi-centric clinical study has been implemented on acute myocardial infarction and pilot study has been initiated on acute ischaemic stroke to determine safety and efficacy of bone marrow mononuclear cells. Stem cell research facilities including clean rooms to handle stem cells have been created at PGIMER, Chandigarh, SGPGIMS, Lucknow, KEM Mumbai and LVPEI, Hyderabad. A training centre to provide training for embryonic and adult stem cells has been supported jointly at NCBS & JNC SAR, Bengaluru. Current Good Manufacturing Practices (CGMP) workshop/training course was also organized. A number of scientists and clinicians were invited to participate in the training course.

In order to formulate road map in the area of stem cell research, a series of disease specific meetings were organized. Based on the consensus, road map for stem cell research has been categorized into basic research, translational research; human resource development; creation of infrastructure facilities; establishment of Centre of Excellence, institutions, creation of basic research units in medical institutions, good animal models for the diseases, etc.

The Department of Biotechnology under Ministry of Science and Technology and Indian Council of Medical Research have jointly formulated draft guidelines for stem cell research.

BIOENGINEERING

Bioengineering has been identified as a potential area of research by the Department. In order to identify priority areas, create road map, strengthen R&D activities and infrastructure for bioengineering research in the country, the Department organized a number of brainstorming meetings. The key areas identified are: tissue engineering, biomaterials for therapeutics, medical devices, bioinstrumentation and biosensors. A number of workshops were organized in the identified areas. Brainstorming meetings were also organized on "Devices and Equipment for Maternal, New Born and Child Health Care" and "Indigenous Production of Surfactants for the Treatment of Premature Babies". It was felt that there is a need to initiate mission mode programmes at institutions having adequate facilities in collaboration with the industry; to strengthen R&D activities for the development of biomaterials especially for drug delivery, cellular/molecular imaging technology; disposable biosensors at low cost for rapid diagnosis of diseases, MEMS biosensor using multi-parameter approach;

fabrication of medical devices and bio-instruments, development of implants, etc. As an outcome, several network groups of clinicians and basic researchers have been formed. Multicentric projects have been generated and implemented in the key areas of bioengineering.

HUMAN GENETICS AND GENOME ANALYSIS

The Human Genetics & Genome Analysis programme which is under implementation since 1990-91 has established major infrastructure to pursue post genomic research activities in the country and also to keep pace with international efforts to exploit the available human, animal and microbial genomics available in public domain. A total of 21 genetic diagnosis-cum-counselling units established since 1991-92 provide continuous patients services in the country to affected families to reduce common genetic disorder/disease burden. So far more than one lakh families got benefited from these units and saved foreign exchange by providing diagnostic services in the country. In order to develop trained manpower in the area, the Government established four training centres (CMC, Vellore, AIIMS, New Delhi, IIH, Mumbai, and SGPGIMS, Lucknow) to train clinician scientists and technicians working at various medical colleges/institutions.

Several projects in the area of human genetics, human genome diversity, functional, structural, microbial, biocomputing, pharmacogenomics, and clinical proteomics were implemented involving a large number of clinicians, molecular geneticists and anthropologists. A strategy plan/roadmap document for the 11th Plan was prepared to initiate major programmes in human genetics and genomic network projects including genetic education in the country.

ENVIRONMENTAL BIOTECHNOLOGY

Under the 11th Plan, the thrust area for the environmental biotechnology has been for research, multi institutional network projects. Efforts are being made to provide the biotechnological solutions to the industries for abatement of pollutions with value added products from waste and conservation of endangered, threatened plant/animal species. A joint programme with NTPC has been planned to formulate programme on carbon sequestration using biotechnological tools. R&D leads in some of the projects like Hydrogen (bio energy) from waste, industrial waste water treatment of highly polluting industries like Petroleum installations/refineries, pulp and paper industries, textile/dye industries and poultry waste are being taken up for joint ventures with user industries for demonstration of the technologies developed at laboratory scale.

MISSION MODE PROGRAMME ON BIOFUELS AND BIOENERGY

The Department of Biotechnology has launched a mission programme on biofuel from biomass. The thrust is on developing ethanol using lingocellulose waste as a raw material, identifying recombinant microbial strains for enhanced ethanol recovery, producing high quality raw material for biodiesel production and developing enzymatic transesterification process for conversion of oil to Biodiesel. Under a micromission on production of quality planting material of *Jatropha curcas*, for the first time a systematic scientific survey, characterization and collection of superior accessions from across the country, has been taken up.

Programme has also been initiated on using Lignocellulosic materials as they are cheap renewable resources, available in large quantities in our country and would

sustain the supply of raw material for ethanol production. The economic viability of the process depends on efficient conversion of cellulose and hemicellulose to soluble sugars, which can be achieved by bringing down the cost of existing enzyme production by twofold. Under the Bioethanol programme, recombinant microorganisms have been identified, which are thermo tolerant and help in enhanced ethanol recovery, enzymatic pretreatment processes for lignocellulosic degradation are also going on. Efforts are continuing for scale-up of these technologies to make them commercially viable.

BIOTECHNOLOGY FOR SOCIETAL DEVELOPMENT

Demonstration and training programmes on proven and field-tested technologies were continued. The projects implemented could help in increasing the skills and income of SC/ST people, rural folk and women through product and process development and employment generation and improvement of their health status. More than 1,16,000 people have been benefited through around 135 ongoing projects in cultivation of aromatic and medicinal plants, mushroom, biological control of plant pests and diseases, solid waste management, vermiculture and vermicomposting, biofertilizers, aquaculture, guail farming, human health care etc.

FOOD AND NUTRITION BIOTECHNOLOGY

The main emphasis has been on development and use of nutraceuticals and probiotics for holistic health. The Department after indepth consultation with national and Canadian experts has worked out the logistics to establish a *National Agri-Food Biotechnology Institute* (NABI), and the *Bioprocessing Unit* (BPU) as autonomous institutions under the Department of Biotechnology (DBT), Ministry of Science & Technology. Both NABI and BPU are planned to come up along with an Agri-food Park designed to house start-up companies. All these three - NABI, BPU, and the Park - will form the *Agri-food Cluster* at Mohali, Punjab. Further, taking into account the demand of trained manpower in the area of food and nutritional sciences, the Department took the initiative for seeking letters of intent for creation and/or remodelling of Departments for an integrated Master's and Doctorate programme in Nutritional Science or Food Science & Technology.

MICROBIAL AND INDUSTRIAL BIOTECHNOLOGY

The technologies for production and application of various enzymes having industrial importance such as keratinase, pullulanase, cellulase, lactase, protease etc. have been developed. Emphasis has also been given on production of enzymes like hydrolase, L-asparaginase, phytase, chitinase etc. and medicinally important fungal products such as fumagillin, lovosatin and ezetimibe. The new projects relevant to health sector are focused on development of a novel vesicular drug delivery system for psoriasis and biochip based diagnostics for detection of genetic diseases. Projects in hyper production of dyes/pigments from selected lower fungi for application in textile dyeing industry, development of membrane bioreactor for the synthesis of structured lipids, preparation of an amperometric biosensor for determination of triglycerides, development of immunodiagnostic kit for the detection of Karnal bunt in wheat lots, production of wine from mango, and design and optimization of a circulating fluidized bed biomass gasifier have been implemented. Thrust areas have been identified for implementation as net work programmes/mission mode projects for implementation during the 11th Plan.

SMALL BUSINESS INNOVATION RESEARCH INITIATIVE (SBIRI) FOR PUBLIC PRIVATE PARTNERSHIP

The department initiated the scheme "Small Business Innovation Research Initiative (SBIRI)" in September 2005 to bring biotech industry at the forefront of technological revolution. The programme aims to build and capture a leadership position for India among the topmost countries of the world in biotech sector. The SBIRI scheme operates in two phases. Under Phase-I highly innovative, early stage, pre-proof-of-concept research is supported, while under Phase-II, the funding is provided for late development and commercialization of innovative research leads. The proposals that address important national needs are given preference. This scheme marks a new phase in public-private partnerships in a way that combines the strengths of the public sector with creativity and efficiency of the private sector. Effective linkages between the industry and academia are forged for up-scaling and validation of laboratory research to facilitate commercialization. The SBIRI scheme reaches out to entrepreneurs at the grass-root level and supports pre-proof-of-concept and innovative research leading to commercialization.

For close monitoring and review of the projects a two-tier mechanism is envisaged. At the first level, a Project Monitoring Committee (PMC) comprising of 2-3 experts would review the progress on a periodical basis.

The SBIRI initiative marks an important milestone and augurs well for the development of the Biotech Sector in India. The scheme has been well received and appreciated at different fora.

BIOSAFETY ISSUES

Under Biosafety programme main emphasis has been given to facilitate and implement biosafety procedures and guidelines for ensuring safety from the use of Genetically Modified Organisms (GMOs) and products thereof in research and application to the users as well as to the environment. The institutions and industries involved in recombinant DNA work are carrying out their activities with the approval from Institutional Biosafety Committees (IBSCs), Monitoring-cum-Evaluation Committee (MEC) and Review Committee on Genetic Manipulation (RCGM) and other institutional structures. The Department had reconstituted the Review Committee on Genetic Manipulation (RCGM) to monitor the safety related aspects in respect of ongoing r-DNA projects and activities involving Genetically Engineered Organisms/ Hazardous organisms and controlled field experiments of transgenic crops, in compliance with the Rules-1989 of Environment (Protection) Act, 1986 (EPA-1986). The RCGM was actively involved in clearing and guiding public and private institutions in the development of transgenic crops and r-DNA therapeutics.

Apart from considering the applications submitted by various organizations involved in the r-DNA technology, RCGM has taken several policy decisions such as standardization of protocol for conduct of multi-location field trials, data collection parameters, nomenclature of transgenic crop/gene/event, and new monitoring mechanism for Bt. cotton. In the area of recombinant pharma sector, the Department actively participated in finalization of report for the Task Force on "Recombinant Pharma Sector" constituted by the Ministry of Environment & Forests. The recommendations of the Department on protocols for different kinds of r-DNA pharma products based on indigenous development and marketing, import and marketing, purified materials from Genetically Modified Organisms (GMOs) as products for

commercialization and GMOs as products were included in the final report. The Department had actively provided inputs on rationalization of biosafety regulatory procedures on transgenic crops and recombinant DNA therapeutics to several committees set up by Government of India. M/s Biotech Consortium India Ltd. New Delhi has been supported by the Department to organize workshops on National Consultation on Biosafety aspects related to Genetically Modified Organisms to apprise the members of the IBSCs on biosafety Rules, Regulations & Procedures.

For making available transgenic crops and recombinant DNA therapeutics to the society at the earliest and at the same time not compromising on the safety of the products, the rationalized Biosafety guidelines and procedures were followed. A dedicated dynamic and interactive website on Biosafety reflecting National and International Guidelines, National Rules & Procedures with dynamic interaction with Institutional Biosafety Committees (IBSC) has been developed and launched. Another website on "Indian GMO Research Information System (IGMORIS)" aimed to provide information on research work going on in Indian laboratories, has also been launched. A handbook for members of IBSCs was prepared by the Department and distributed to all IBSCs. The Department had played an active role for the environmental release of four Bt. Cotton events expressing *cry1Ac* (*Mon 531 event*); *cry1Ac* and *cry2Ab* (*Mon 15985 event*) and *GFM cry1A* and *cry1Ac* (*event No. 1*) genes by different seed companies/industries based on the recommendations of Review Committee on Genetic Manipulation (RCGM) and Monitoring-cum-Evaluation Committee (MEC). About 320 IBSCs have been constituted so far at various public funded institutions, universities, private R&D institutions and industries. Keeping in view the recent Orders of the Hon. Supreme Court, the Department has been making efforts to ensure that the conditions laid out in the Orders are adhered to, while taking any decision on the applications for various research field trials.

BIOINFORMATICS

The BTIS net programme of this Department has today developed into an extensive nationwide Network covering over 120 institutions, spread geographically all over the country. The Network is engaged in providing support to Biotechnology research, creating human resources in Bioinformatics and carrying out research in different areas of Bioinformatics. Fifty-two Bioinformatics facilities (BIF) were established towards introducing innovation in Biology Teaching through Bioinformatics (BTBI). These facilities will be a centralized resource of individual institutions to support bioinformatics tools and resources for the enhancement of learning capabilities in Biology and Biotechnology.

The Department initiated focused multi-institutional consortium projects in Bioinformatics to address specific problems through bioinformatics approach. Bioinformatics and experimental biology collaborative projects are being considered so as to improve the contribution of bioinformatics in wet lab biotechnology research. The Centres of Excellence in Bioinformatics such as JNU and University of Pune have upgraded their Diploma courses in bioinformatics to M. Tech in Computational and Systems Biology and M.Sc. in Bioinformatics, respectively. A national level Bioinformatics Certification (BINC) Examination was initiated this year to recognize the quality of human resources available in the country in Bioinformatics.

BIOTECHNOLOGY PARKS AND INCUBATORS

The Biotech Parks and Biotech Incubation Centres provide an excellent template for the promotion of Biotech startup companies and the promotion of Public-Private

Partnership. The Biotechnology Park at Lucknow set up on 8 acres land provided by the Department of Science and Technology, Government of Uttar Pradesh is now operational and is emerging as a good model. A Bio-Business Block set up at the Biotech Park would be housing Business Support facilities, Bioinformatics Unit, Conference/Training Room and Cafeteria. The Tissue Culture Unit has the capacity to produce 10000 to 100000 plants/batch. The Biofertilizer unit has facilities for production of bacterial fertilizers. The central support facility will have the facilities for analysis and quality testing of the products. An ancillary service block has been built for air conditioning system, high and low-tension panel, diesel set generator and a boiler room. The extraction block will have system for extraction of phytochemical/lead molecules from high value medicinal plants. The diagnostic facility established by the Industry will manufacture and market the diagnostic kits. Distillation and vermicomposting units have been completed. One TPD oil expeller has been installed for extraction of oil from *Jatropha* seeds at the site of distillation unit.

The Biotech Park and incubator facility at Shapoorji Pallonji Biotech Park, Genome Valley, Hyderabad has been mainly designed for development and scale-up of bio-processes and technologies. Current Good Manufacturing Practices (cGMP) compliance for Pilot plant facilities, required for quality manufacturing and for minimizing or eliminating contamination will be available. A Pre-Biotechnology Incubator (BTIC) Process Generator (PBPG), component of the BTIC was set up at IICT, Hyderabad to act as an intermediate and front-end facility to provide lab and bench scale process technologies for biotech processes. A Biotechnology Incubation Centre (BTIC) in Kerala is being established at Kalamassery, Ernakulum Dist., Kochi to promote small entrepreneurs and units for knowledge of traditional medicine, herbs and plant varieties, spices etc. This would help in modernizing production technologies, quality assurance of raw materials and products. The incubator facility would accelerate commercialization of new technologies, support new ventures in biotechnology and provide appropriate linkages to entrepreneurs. Initiatives are under way in Himachal Pradesh to set up a Biotech Park. The Biotech Park initiative at Bengaluru, Karnataka is being pursued for the promotion of Public-Private Partnership. The Biotech Park at Karnataka will be structured into three components viz. Institutional and Research & Development Block; Biotech Incubation Centre and Common Instrumentation Facility; and Biotechnology Industries Cluster comprising independent private industry units. The Karnataka Biotechnology and Information Technology Services (KBITS) is the implementing agency and they have identified a few Public-Private Partners for the Biotech Park.

INTERNATIONAL COLLABORATION

International collaborations in biotechnology are an important vehicle for expanding the knowledge base and developing of expertise which would leverage the growth of research and development in the country. There is a renewed interest in collaboration with India amongst the developed countries. Good progress has been made following the MoUs which were signed with Denmark and Finland and joint projects have been funded. Joint projects have also been funded with The Biotechnology and Biological Sciences Research Council BBSRC, UK. In new collaborations the Department signed two memoranda with Agriculture and Agri-Food, Canada and the National Research Centre, Canada respectively. The ongoing bilateral agreements and collaborations have also been significant, with joint projects being funded with

Germany, Norway and USA. Bilateral interactions have been initiated with Sweden, Ukraine and EU. The multilateral collaborations including co-operation amongst SAARC countries were pursued.

AUTONOMOUS INSTITUTIONS AND PUBLIC SECTOR UNDERTAKINGS

National Institute of Immunology, New Delhi

The Institute makes inroads into basic research related to the immune system with a commitment that the knowledge gained would contribute to newer and more effective ways of addressing the health needs of the country. The Institute continued with the concept of 'end-to-end' research in the biosciences and have signed MoU with Astra Zeneca India, Bengaluru, and Cadila Pharmaceuticals, Ahmedabad on a technology related to novel molecules that inhibit Mycobacterial Fad D proteins and can have the potential as anti-mycobacterial drugs.

National Centre for Cell Science, Pune

The Centre has emphasis on R&D activities in the areas of cell biology including stem cell biology, signal transduction, cancer biology, diabetes, infection and immunity and chromatin architecture and gene regulation. The national cell repository supplied 1154 cell lines to 128 scientific institutions in India. Training and teaching programmes were also conducted. In the cell biology research, for the first time a nuclear pore protein has been found to be associated with interphase microtubules. A protein molecule from perivitelline fluid of India horse shoe crab has shown cardiac promoting activity. In stem cell research, arachidonic acid omega 6 and its metabolites found to reduce apoptosis in CD34+ cells. The differentiation of mouse embryonic stem cells into dopaminergic neurons has been achieved. In diabetes research, chick pancreatic B islets have been found to be an excellent screening model for physiological and pharmacological studies. In cancer biology area, a distinctive nuclear-mitochondrial mutational profile and varying stem cell dynamics have been identified which seem to be associated with tumorigenesis. As a potential therapeutic anti-cholesterol agent, methyl-B-cyclodextrin in combination with other cytotoxic drugs towards reduction of drug dosage is being evaluated. Studies on signal transduction revealed that cox-2 is a potential agent for prostate tumor suppression. In infection and immunity studies, selenophosphate synthetase gene has been cloned and characterized. Successfully isolated and characterized dendritic cell types 1&2. Genome sequencing of poxviruses and herpesvirus showed that members of these families encode structural homologs of human regulators of the complement activation to mask themselves against the hosts complement attack. Studies on HIV biology indicate that Hsp40 as a crucial player in Nef mediated enhancement of HIV gene expression and replication. Leads from chromatin architecture and gene regulation studies on HIV have advanced the knowledge on mechanism of global gene regulation.

Centre for DNA Fingerprinting and Diagnostic (CDFD), Hyderabad

The Centre for DNA Fingerprinting and Diagnostics (CDFD) is an autonomous organization funded by the Department of Biotechnology, Ministry of Science and Technology, Government of India. CDFD has been providing services for DNA fingerprinting, diagnostics, newborn screening and bioinformatics based modern high-technology DNA-based methods, of direct benefit to the public, as well as in performing fundamental research of international standards in frontier areas of

biological science. CDFD is providing DNA fingerprinting services to various Government and Law Enforcement Agencies and signed MoUs with State/Central Forensic Science laboratories to popularize this technology for the benefit of the society. CDFD also has a Sun Microsystem's Centre of Excellence in Medical Bioinformatics. Based on novel technology developed by the Centre, a new joint activity has been initiated this year at the CDFD as "APEDA-CDFD Centre for Basmati DNA Analysis" with funding through APEDA (Agricultural and Processed Food Products Export Development Authority). The Centre will test and certify export consignments of basmati rice for their purity, and is expected to contribute in increasing the value and quality of such exports from the country. The major thrust areas of research in the Centre continue to be studies on infectious disease pathogens including *M. tuberculosis*, *H. pylori*, HIV, and HPV, silkworm genetics and genomics, computational biology and bioinformatics; and fundamental studies on transcription and signal transduction. Transgenic silkworms have been created that are resistant to baculovirus, causative agent for destroying the worms, by using RNAi technology. Important results in K-Ras signalling pathways in cancer epithelial cells have been obtained and a novel and convenient tool for Human Papilloma Virus detection has also been developed.

National Brain Research Centre (NBRC), Manesar, Haryana

The National Brain Research Centre was established to create a Centre of Excellence in Brain Research with state-of-the-art facility in the country to consolidate, network and undertake basic research of high caliber in neuroscience and also to generate highly trained human resources. The mandate of the centre is also to have established linkages with national and international organizations involved in neuroscience research. The Functional Magnetic Resonance Imaging (fMRI) facility of the centre was made operational on 29 September 2006. As a deemed university, NBRC is continuing its M.Sc. and Ph.D. programmes for research fellows.

National Institute for Plant Genome Research (NIPGR), New Delhi

The National Institute for Plant Genome Research (NIPGR), New Delhi (previously a National Centre) is engaged in plant genomic research with focus on structural genomics and functional with application genomics. It is working on Genomics of certain crops and manipulation of genes/genomes to breed improved varieties of food and industrial crops such as Chickpea, Catharanthus, Potato, Tomato, Lathyrus, Rice, Sweet Potato and Cassava. Besides working on nutritional aspects, improvement in self-life of vegetables and fruits, development of resistance/tolerance against diseases and abiotic stresses, the Centre is actively engaged on programmes related to enhanced production of medicinal alkaloids from Catharanthus plant. The Institute is also making a significant contribution towards scientific manpower development in advanced areas of plant molecular biology, genomics and genetic transformation.

Institute of Bioresources and Sustainable Development, Imphal

The research programmes of the institute have continued towards bioresource development and its sustainable use through biotechnological interventions for the socio-economic growth of the North-East region. Work on the database on micro-organisms with special reference to cyanobacteria available in Manipur has been initiated. A Distributed Information Sub-Centre (Sub-DIC) under the Bioinformatics

Network has been set up at the institute. *In vitro* multiplication and hardening of tissue culture plantlets of *Kaemferia galanga* is in progress. Hybridization of two rare vandaceous orchids-*Aerides vandarium* and *Vanda coerulea* achieved. Genetic differentiation of tree bean (*Parkia timoriana*) cultivars grown in Manipur were analyzed. Three training programmes on the use of tools and techniques for bioresource development and utilization were organized. Culturable seeds of *Osteobrama belangeri* (Pengba) were produced in a Training-cum-demonstration programme of the institute and about 10 lakh spawns and 20,000 fingerlings were distributed free of cost to selected fish farmers and entrepreneurs of Manipur as starting material for popularization of this fish in the region.

INSTITUTE OF LIFE SCIENCES, BHUBANESWAR

A septuplet PCR assay was developed for rapid identification of species-specific virulent and e-positive strains of *V. cholera* and one hundred strains of *V. cholerae* O1 were tested to document the validity of assay. A multiplex PCR assay to detect a *fluvialtills* sibling species developed during the course of the year will be used to understand feeding habits (Anthropophilic index) and sporozoite carrying capacity of these vectors. Studies on bio-prospecting were continued with a view to tapping the vast potential of thermopiles. A diverse group of bacteria belonging to the genera *Thiomonas*, *Comamonas* and *Chromobacterium* were isolated from previously unexplored hot springs. A chemolithoheterotrophic, thiosulfate oxidizing, gram negative bacterium (designated strain S10) was isolated and identified. 16S DNA sequence data and the total fatty acid analysis suggested it to be a new species of genus *Thiomonas* for which the name *Thiomonas bhubaneswarensis* has been proposed.

PUBLIC SECTOR UNDERTAKINGS

There are two public sector undertakings i.e. Bharat Immunologicals & Biologicals Corporation Limited, (BIBCOL) and Indian Vaccines Corporation Limited (IVCOL). The BIBCOL located at Bulandshahar manufactures Oral Polio Vaccine being used in the National Immunization Programme. The IVCOL was established as a joint venture company. Efforts are being made to revive it with new products mix and financial pattern.

INTERNATIONAL CENTRE FOR GENETIC ENGINEERING AND BIOTECHNOLOGY (ICGEB), NEW DELHI

ICGEB makes its research efforts in identified areas of human health, agriculture and product development. A high through-put microtiter assay based on the heme detoxification pathway of *Plasmodium* has been developed for screening chemical combinatorial libraries and crude extracts of marine organisms. Several bioactive proteins from the secretome of insect pathogenic bacterium, *Xanthomonas nematophila* have been identified. A HCV test based on designer diagnostic HCV multi-epitope protein developed by the centre has been marketed in India.

26 Transport

A well-knit and co-ordinated system of transport plays an important role in the sustained economic growth of a country. The present transport system of the country comprises several modes of transport including rail, road, coastal shipping, air transport, etc. Transport has recorded a substantial growth over the years both in spread of network and in output of the system. The Ministry of Shipping and the Ministry of Road Transport and Highways are responsible for the formation and implementation of policies and programmes for the development of various modes of transport save the railways and the civil aviation.

RAILWAYS

The Railways in India provide the principal mode of transportation for freight and passengers. It brings together people from the farthest corners of the country and makes possible the conduct of business, sightseeing, pilgrimage and education. Indian Railways have been a great integrating force during the last more than 155 years. It has bound the economic life of the country and helped in accelerating the development of industry and agriculture. From a very modest beginning in 1853, when the first train steamed off from Mumbai to Thane, a distance of 34 km Indian Railways have grown into a vast network of 7,030 stations spread over a route length of 64,015 Km with a fleet of 8,592 locomotives, 49,110 passenger service vehicles, 5,985 other coaching vehicles and 2,11,763 wagons as on 31st March, 2009. The growth of Indian Railways in the 150 years of its existence is thus phenomenal. It has played a vital role in the economic, industrial and social development of the country. The network runs multigauge operations extending over 64,015 route kilometres. The gauge-wise route and track lengths of the system as on 31st March, 2009 are as under:

Gauge	Route Km	Running Track Km	Total Track Km
Broad Gauge (1.676 mm)	52,808	75,228	99,416
Metre Gauge (1.000 mm)	8,473	8,973	10,656
Narrow Gauge (762 mm and 610mm)	2,734	2,736	3,043
Total:	64,015	86,937	1,13,115

About 29 per cent of the route kilometre, 41 per cent of running track kilometre and 42 per cent of total track kilometre is electrified. The network is divided into

16 Zones. Divisions are the basic operating units. The 16 zones and their respective headquarters are given below:

Zonal Railways	Headquarters
Central	Mumbai CST
Eastern	Kolkata
East Coast	Bhubaneshwar
East Central	Hajipur
Northern	New Delhi
North Central	Allahabad
North Eastern	Gorakhpur
Northeast Frontier	Maligaon (Guwahati)
North Western	Jaipur
Southern	Chennai
South Central	Secunderbad
South Eastern	Kolkata
South East Central Railway	Bilaspur
South Western Railway	Hubli
Western	Mumbai
West Central Railway	Jabalpur

The rolling stock fleet of Indian Railways in service as on 31st March 2009 comprised 43 steam, 4,963 diesel and 3,586 electric locomotives. Currently, the Railways are in the process of inducting new designs of fuel-efficient locomotives of higher horse power, high-speed coaches and modern bogies for freight traffic. Modern signalling like panel inter-locking, route relay inter-locking, centralized traffic control, automatic signalling and multi-aspect colour light signalling are being progressively introduced. The Indian Railways have made impressive progress regarding indigenous production of rolling stock and variety of other equipment over the years and is now self-sufficient in most of the items.

The main objectives of railways planning have been to develop the transport infrastructure to carry the projected quantum of traffic and meet the developmental needs of the economy. Since the inception of the planned era in 1950-51, Indian Railways have implemented nine five-year plans, apart from annual plans in some years. During the Plans, emphasis was laid on a comprehensive programme of system modernization. With capacity being stretched to the full, investment of cost-effective technological changes become inescapable in order to meet the ever-increasing demand for rail transport. Along with the major thrust directed towards rehabilitation of assets, technological changes and upgradation of standards were initiated in important areas of track, locomotives, passenger coaches, wagon-bogie designs, signaling and telecommunication.

Public Sector Undertakings

There are eleven public undertakings under the administrative control of the Ministry of Railways, viz. (i) Rail India Technical and Economic Services Limited (RITES); (ii) Indian Railway Construction (IRCON) International Limited; (iii) Indian Railway Finance Corporation Limited (IRFC); (iv) Container Corporation of India Limited (CONCOR); (v) Konkan Railway Corporation Limited (KRCL). (vi) Indian Railway Catering and Tourism Corporation Ltd. (IRCTC); (vii) Railtel Corporation of India Ltd. (Rail Tel); (viii) Mumbai Rail Vikas Nigam Ltd. (MRVNL); (ix) Rail Vikas

Nigam Ltd. (RVNL); and (x) Dedicated Freight Corridor Corporation of India Limited (DFCCIL) and Bharat Wagon and Engineering Co. Ltd. (BWFL).

The Centre for Railway Information System (CRIS) was set up as a registered society to design and implement various railway computerization projects.

Rolling Stock

Over the years, Indian Railways has not only achieved self-sufficiency in production of rolling stock in the country but also supplied rolling stock to other countries and non-railway customers. Indian Railways are now manufacturing 4500 HP, state-of-the-art AC-DC microprocessor control, fuel efficient diesel locomotives at Diesel Locomotive Works (DLW), Varanasi and 6000 HP, three phase electric locomotives at Chittaranjan Locomotive Works (CLW), Chittaranjan. In 2009-10, DLW manufactured 258 locomotives which is its best ever performance. DLW also rolled out 110 HHP EMD type locomotives which is again a record. CLW manufactured 220 electric locomotives which includes 60 HHP locomotives.

Indian Railways are manufacturing LHB design high-speed light weight coaches at Rail Coach Factory (RCF), Kapurthala. During 2009-2010, RCF achieved a record production of 1568 coaches. RCF rolled out first prototype air conditioned Double Decker coach in March 2010. RCF also produced 9 stainless steel rakes and 2 fully air-conditioned LHB rakes for running on Duroto trains. Integral Coach Factory (ICF), Chennai produced 1433 coaches including first High Speed Self-Propelled Accident Relief train and four rakes of DMUs with toilet facility.

Rail Wheel Factory (RWF), Bangalore manufactured 187460 wheels, 65302 axles and 55940 wheel sets during 2009-10. Diesel loco Modernization Works (DMW), Patiala rebuilt 112 locomotives during 2009-10 against the earlier record rebuilding of 108 locomotives achieved in 2008-09.

Research and Development

The Research, Design and Standards Organization (RDSO) at Lucknow is the R&D wing of Indian Railways. It functions as a consultant to the Indian Railways in technical matters. It also provides consultancy to other organizations connected with railway manufacture and design.

Railway Finance

Since 1924-25, railway finances remain separated from general revenues. They have their own funds and accounts and the Railway Budget is presented separately to Parliament. However, the Railways contribute to the general revenue a dividend on the capital invested. Quantum of contribution is reviewed periodically by a Parliamentary Convention Committee.

Passenger Traffic

Passengers originating had risen from 1,284 million in 1950-51 to 6,920 million in 2008-2009 and passenger kilometre from 66.52 billion in 1950-51 to 838 billion in 2008-2009. Despite constraint of resources, the Railways have been able to cope with increasing demand of passenger traffic. Railways are the premier mode of passenger transport both for long distance and suburban traffic.

Freight Traffic

Rapid progress in industrial and agricultural sectors has generated a higher level of demand for rail transport, particularly in core sectors like coal, iron and steel ores, petroleum products and essential commodities such as food grains, fertilizers, cement,

sugar, salt, edible oils etc. Revenue freight traffic increased from 73.2 million tonnes in 1950-51 to 833.39 million tonnes in 2008-09. Transport effort measured in terms of net tonne kilometres (NTkm) increased from 38 billion in 1950-51 to 551 billion in 2008-2009. Some of the measures taken for improvement are: (i) line capacity augmentation on certain critical sectors and modernization of signalling system; (ii) measures such as unit train operation for bulk commodities like coal; (iii) increase in roller-bearing equipped wagons; (iv) increase in trailing loads to 4,500 tonnes; (v) operation 'UNI-GAUGE' on Indian Railways; (vi) strengthening the track structure by providing heavier and stronger rails and concrete sleepers; and (vii) production of prototype electric locomotive of 5000 HP for freight operation by Chittaranjan Locomotive Works.

ROADS

India has one of the largest road networks in the world, aggregating to about 3.62 million kilometres at present. The country's road network consists of National Highways, State Highways, major/other district roads and village/rural roads. Though the National Highways, which is the responsibility of the Central Government, has about 70,934 km length and comprises only 2 per cent of the total length of roads, carries over 40 per cent of the total traffic across the length and breadth of the country.

National Highways/Expressways	70,934 km
State Highways	1,33,000 km
Major and Other District Roads	34,17,000 km
Rural Roads	26,50,000 km

The National Highways have further been classified depending upon the carriageway width of the Highway. Generally, a lane has a width of 3.75 m in case of single lane and 3.5 m per lane in case of multilane National Highways. The break-up of National Highways in terms of width is as under :

Single Lane	28 per cent
Double/Intermediate Lane	53.5 per cent
Four Lane/Six lane/Eight Lane	18.5 per cent

About 60 per cent of freight and 87.4 per cent passenger traffic is carried by the roads. Although National Highways constitute only about 2 per cent of the road network, it carries 40 per cent of the total road traffic. The number of vehicles has been growing at an average pace of around 10 per cent per annum (2001-2002 to 2005-06). The share of road traffic in total traffic has grown from 13.8 per cent of freight traffic and 15.4 per cent of passenger traffic in 1950-51 to an estimated 60 per cent of freight traffic and 87.4 per cent of passenger traffic by the end of 2005-06.

NATIONAL HIGHWAYS

The Central Government is responsible for development and maintenance of the National Highways system. The total length of the network, as of today, is 70,934 km. The Ministry is carrying out development and maintenance work of National Highways through three agencies, viz. National Highways Authority of India (NHAI), State Public Works Departments (PWDs) and Border Road Organisation (BRO).

In order to give boost to the economic development of the country, the Government has embarked upon a massive National Highways Development Project (NHDP) in the country. The NHDP is the largest highway project ever undertaken in the country. The NHDP is being implemented by National Highways Authority of India (NHAI).

NHDP Phase I and II: Envisage 4/6 laning of about 14,000 km of National Highways, at an estimated cost of about ₹ 65,000 crore at 2004 prices. These two phases comprise Golden Quadrilateral (GQ), North-South and East-West corridor (NSEW), Port Connectivity and Other Projects. The GQ consisting of 5846 km connects four major cities, viz; Delhi, Mumbai, Chennai and Kolkatta. The NSEW corridors comprising a length of 7142 km connects Srinagar in the North to Kanyakumari in the South including a spur from Salem to Kochi and Silchar in the East to Porbandar in the West, respectively. The NHDP also includes Port Connectivity Project comprising a length of 380 km for improvement of roads connecting 12 major ports in the country and Other Projects involving a length of 962 km.

During the financial year 2008-09, 15 State Highways/routes having a total combined length of 3794 km in various States have been declared as National Highways.

National Highways Development Projects - Achievements

The overall progress of NHDP as on 31 December 2009 is as under :

Phases	Total Length in (km)	Length Completed in (km)	Length Completed during 01.04.2009-31.12.2009	Likely data of Completion
Golden Quadrilateral (GQ) EW-NS corridors, Port connectivity and others	7,498	7263	75	99% of GQ will be completed by March, 2010
II 4/6 laning North South-East West Corridor, Others	6,647	4065	403	Dec.-2010
III Upgradation, 4/6-Laning	12,109	1189	299	Dec-2013
IV 2-laning with paved shoulders	20,000	-	-	Dec-2015 (as per financing plan)
V 6-laning of GQ and high density corridor	6,500	148	41	Dec.-2012
VI Expressways	1000	NIL	NIL	Dec-2015
VII Ring Roads, Bypasses and flyovers and other structures	700 km. of ring roads/ bypass+flyovers etc.	NIL	NIL	Dec-2014

SARDP-NE

Special Accelerated Road Development Programme for North Eastern region (SARDP-NE) aims at improving road connectivity to state capitals, district headquarters and

remote places of NE region. It envisages two/four laning of about 5104 km of National Highways and two laning/improvement of about 4656 km of state roads. This will ensure the connectivity to 85 district headquarters in the North-Eastern states, to two National Highways/two lane State Roads. The programme has been divided into Phase 'A', Phase 'B' and Arunachal Pradesh Package of Roads and Highways.

Phase 'A' comprises of improvement of 2616 km of roads consisting of 1959 kms of National Highways and 657 km of State Roads at an estimated cost of ₹ 16,286 crore. Out of 2616 km, BRO and State PWDs have been assigned with the development of 1400 km of roads at an estimated cost of ₹ 4285 crore. Out of the remaining length of 1216 km, 824 km is to be implemented by National Highways Authority of India (NHAI), 150 km by the Department/Arunachal Pradesh PWD for providing 4-lane connectivity to Itanagar and 242 km length for alternate Highway to Gangtok and improvement of NH-31A will be implemented by BRO. Out of 824 km, works on 330 km will be done by inviting bids for construction works and balance length of 494 km will be taken up on BOT (Annuity) basis. Out of 1400 km as above, projects covering a length of 1055 km at a cost of ₹ 3221 crore has been approved till March, 2009 and works are in different stages of progress. Completion of phase A is targeted for 2012-2013.

Phase 'B' involves 2 laning of 1673 km of National Highways and 2-laning/improvements of 3152 km State roads, Phase B is approved only for preparation of DPR and investment decision is yet to be taken by the Government.

Public Private Participation

Historically, investments in the infrastructure sector, particularly in the highways, were being made by the Government mainly because of the large volume of resources required, long gestation period, uncertain returns and various associated externalities. The galloping resource requirements and the concern for managerial efficiency and consumer responsiveness have led in recent time to an active involvement of private sector. To encourage participation of private sector, the government has also announced several incentives such as tax exemptions and duty free import of road building equipments and machinery etc. It has been decided that all the sub projects in NHDP Phase-III to Phase-VII would be taken up mainly on Public Private Participation (PPP) route following either Build Operate and Transfer (BOT) toll mode or BOT (Annuity) mode.

Central Road Fund

The Central Government has created a dedicated fund, called Central Road Fund from collection of cess from petrol and diesel. Presently, ₹ 2/- per litre is collected as cess on petrol and High Speed Diesel (HSD) Oil. The fund is distributed for development and maintenance of National Highways, State Roads, Rural Roads and for provision of road overbridges/under bridges and other safety features at un-manned Railway Crossings as provided in Central Road Fund Act, 2000. The cess of ₹ 2.00 is being distributed as under :

- (i) ₹ 1.50 is being allocated in the following manner :
 - a) 50 per cent of the cess on high speed diesel (HSD) oil for development of rural roads.
 - (b) 50 per cent of cess on HSD and the entire cess collected on petrol are allocated thereafter as follows:

- An amount equal to 57.5 per cent of such sum for the development and maintenance of National Highways;
 - An amount equal to 12.5 per cent for construction of road under or over bridges and safety works at unmanned railway crossing; and
 - An amount equal to 30 per cent on development and maintenance of State Roads. Out of this amount, 10 per cent shall be kept as reserved by the Central Govt. for allocation to States for implementation of State Road Schemes of Inter-State Connectivity and Economic Importance to be approved by the Central Government.
- (c) Balance cess of ₹ 0.5 per litre is entirely allocated for development and maintenance of National Highways.

An allocation of ₹16,680 crore has been made under the CRF for 2009-10 with the following break-up:

1	National Highways	₹ 8578.45 Cr.
2	Rural Roads	₹ 4843.13 Cr.
3	Railways	₹ 958.36 Cr
4	Grant to State Governments and UTs for State roads	₹ 2070.06 Cr.
5	Grant to States and UTs for Roads of Inter-State Connectivity and Economic Importance	₹ 230.00 Cr.
TOTAL		₹ 16,680 Cr.

State Sector Roads

Since the State Highways and Major District and Rural Roads are under the responsibility of respective State Governments, these are developed and maintained by various agencies in State and Union Territories. However, the funds are also being provided from the Central Road Fund (CRF) by the Union Government for the development of State Roads under the following schemes:

Improvement of State Roads from the CRF

The funds from the CRF are provided for improvement of State Roads other than rural roads. During the year 2008-09, 1313 proposals amounting to ₹ 5126 crore have been sanctioned for improvement of State Roads under CRF. An amount of ₹ 2070.06 crore has been allocated for the year 2009-10 for improvement of State Roads under CRF.

Economic Importance and Inter State Connectivity Scheme

To promote inter-state facilities and also to assist the State Governments in their economic development through construction of road bridges of Inter-state and Economic Importance, Central Government provides 100 per cent grant for inter-state connectivity projects and 50 per cent grant for projects of economic importance. This fund is also provided from the CRF.

During the year 2008-09, 20 proposals amounting to ₹ 162.37 crore with central share of ₹ 81.19 crore under EI scheme and 27 proposals amounting to ₹ 303.20 crore under ISC scheme have been accorded in-principle approval by the Ministry. An amount of ₹ 230.00 crore (₹ 213.97 crore for the States and ₹ 16.03 crore for UTs) is earmarked under this scheme for the year 2009-10.

Research and Development

The role of research and development in the road sector is to update the specifications for road and bridge works, for effective quality control in projects to introduce new testing techniques and equipments, to introduce emerging construction materials in projects and to recommend new techniques for highway construction and maintenance. With the availability of modern construction machinery in the country, the specifications for the road works need periodic review. New testing equipments for checking quality of executed works are quick and reliable. These equipments need to be calibrated and understood before these are put to use. Likewise, new materials and construction techniques, before those are put to use in various projects, need to be tested in a pilot research study. The dissemination of research findings is done through Indian Roads Congress (IRC) by publication of Research digest in Indian Highways, and by incorporation of these findings in their guidelines, codes of practice, compilation of State-of-Art reports and instructions/circulars issued by this Ministry etc. The research schemes sponsored by the Ministry are generally 'applied' in nature, which, once completed, would enable them to be adopted by user agencies/departments in their work in the field. The areas covered are roads, road transport, bridges, traffic and transportation engineering etc. The research work is undertaken in various research and academic institutions. An outlay of ₹ 850.00 lakhs was provided for R&D in during the year 2008-09. Some of the ongoing major schemes are as follows :

Roads

- R&D studies on performance evaluation of Rigid Pavements on High Density Traffic Corridors using instrumentation supported by laboratory tests.
- Investigation on field performance of bituminous mixes with modified binders;
- Testing of pavements using seismic waves.
- Preparation of manual on the construction of the composite pavement.

Bridges

- Creation of complete range of independent testing facilities for expansion joints at CRRRI.
- Development of an expert system for distress diagnostic of concrete bridge (Fuzzy based).
- Development of standard drawings for composite bridge (with steel girders).
- Development of explanatory commentary on Standard Specifications and Code of Practice for Road Bridges, Section VI Composite Constructions (Limit State Design) (First Revision).

Traffic and Transportation

- Development of GIS based National Highways information system.

BORDER ROADS ORGANISATION

Border Roads Organization (BRO) is a road construction executive force, integral to and in support of the Army. It started operations in May 1960 with just two projects-project Tusker (renamed Project Vartak) in the East and Project Beacon in the West. It has now grown into a 15 project executive force. BRO is entrusted with the task of construction and maintenance of roads in the border areas, classified as General Staff roads, in keeping with defence requirements. Besides, they also execute agency

works entrusted to it by the other central government ministries/departments. The major achievements of the BRO are as under:

- (i) The entrustment of the construction of 8.80 km long Rohtang tunnel, related access roads to its portals and a 292 km long Alternate Route to Leh, at an approximate cost of ₹ 1355.82 crore has opened a new chapter in the recognition of the diverse capabilities of the Organisation. The construction works have progressed as per target. Length of approach road to South Portal of Rohtang tunnel is 11.750 km and to the North Portal is 0.975 km. Awarding of contract for main tunnel is in the advance stage.
- (ii) The BRO has been entrusted with the four-laning of a stretch of NH-1A from Jammu-Vijaypur as part of NHDP's North-South corridor, on behalf of the NHAI. The initial cost of this project was estimated at ₹ 83.88 crore and revised cost of this project due to variation order approved for ₹ 101.48 crore.
- (iii) Part of Phase 'A' of Special Accelerated Road Development Programme for North-East (SARDP-NE) has been entrusted to BRO. The work involves construction of new roads and improvement of existing roads to double lane standards under a phased programme. Widening of 721 km roads at an approximate cost of ₹ 2013 crore under Phase 'A' with PDC 2010-11 and preparation of DPRs for the roads under Phase 'B' for 2043 km with PDC 2013-14 have been entrusted to BRO. The works had commenced in the year 2006-07.
- (iv) Under the Re-construction plan for Jammu and Kashmir announced by the Prime Minister, the upgradation of 94 km long Srinagar-Uri (NH-1A), upgradation of 17.25 Km long Uri-LoC road, double laning of 265 km long Batote-Kishtwar-Anantnag (NH-1B), double laning of 422 km long Srinagar-Leh road via Kargil (NH-1D), Construction of Nimu-Padam-Darcha 290 km and widening of 14.14 km long Domel-Katra (NH-1C) has been entrusted to BRO. The approximate cost of these works is ₹ 2308.81 crore. These works are scheduled to be completed by 2012.
- (v) BRO has completed a unique structure of 120 m long Cut and Cover tunnel at KM 141.80 on NH-44 near Sonapur in Meghalaya which was inaugurated on 30 Sep 2008 and dedicated to the Nation. This will facilitate uninterrupted line of communication at Sonapur Land Slide area during the monsoons for forward areas of Meghalaya, Mizoram, Tripura and Cachar region of Assam.
- (vi) 763.50 m long Passighat bridge on NH-52 is planned for completion during 2009-10.

Road Safety

There are three aspects of road safety viz. engineering, enforcement and education. The engineering related aspects are being taken of at the design stage of the NH itself. The enforcement aspect of the road safety is vested with the respective States/Union Territories. The education aspect of road safety is taken care of through campaigns in print and electronic media with the involvement of NGOs.

SHIPPING

Shipping industry is one of the most globalised industries operating in a highly competitive business environment that is far more liberalized than most of the other industries and is, thus, intricately linked to the world economy and trade.

The salient features of India's shipping policy are the promotion of national shipping to increase self-reliance in the carriage of the country's overseas trade and protection of stakeholders' interest in EXIM trade. India's national flagships provide an essential means of transport for crude oil and petroleum product imports. National shipping makes significant contribution to the foreign exchange earnings of the country.

The vision of the Ministry of Shipping is to ensure vibrant, efficient and safe ports and shipping services, shipping and shipbuilding industry, promote development the Major Ports to attain global standards and promote inland water transportation in India.

NATIONAL MARITIME DEVELOPMENT PROGRAMME

The National Maritime Development Programme has been formulated by the Ministry of Shipping envisaging an investment of ₹ 1,00,339.00 crore, comprising 276 projects covering all major ports entailing activities like construction/Upgradation of berths, deepening of channels, rail/road connectivity projects, etc. at a cost of ₹ 55,804.00 crores and 111 projects covering tonnage acquisition, maritime training, coastal shipping, aids to navigation, shipbuilding and building up of IWT infrastructure at a cost of ₹ 44,535.00 crores.

The share of the private sector investment in the ports sector would be around ₹ 34,505.00 crores mainly consisting of commercially viable projects like development and operation of berth, terminals, etc. Public funded projects would cover the activities like creation of common user infrastructure facilities. The objective is to upgrade and modernize the infrastructure in India considering global standards as the benchmark. The break up of the projects to be taken up under NMDP is given below:

● Channel Deepening	25 projects	(Rs. 6304 crore)
● Berth construction	76 projects	(Rs. 32564 crore)
● Equipment	52 projects	(Rs. 2633 crore)
● Connectivity	45 projects	(Rs. 5956 crore)
● Others	78 projects	(Rs. 8347 crore)

As per the latest statistics, fifty two projects in the Port Sector and 13 projects in Shipping Sector have been completed.

SHIPPING

Shipping plays an important role in the transport sector of India's economy. Approximately, 95 per cent of the Country's trade volume (68 per cent in terms of value) is moved by sea. India has one of the largest merchant shipping fleet among the developing countries and ranks 16th amongst the countries with the largest cargo carrying fleet with 10,11 million Gross Tonnage (G.T.) as on 31.8.2010 and average age of the fleet being 18.03 years. Indian maritime sector facilitates not only transportation of national and international cargoes but also provides a variety of other services such as cargo handling services, shipbuilding and ship repairing, freight forwarding, light house facilities and training of marine personnel, etc.

The salient features of India's shipping policy are the promotion of national shipping to increase self-reliance in the carriage of the country's overseas trade and protection of stakeholders' interest in EXIM trade. India's national flagships provide an essential means of transport for crude oil and petroleum product imports. National

shipping makes significant contribution to the foreign exchange earnings of the country.

INDIAN TONNAGE

The Government nationalized the fiscal regime for Indian Shipping Industry by introducing Tonnage Tax system from the financial year 2004-05 in order to provide Indian Shipping Industry a level playing field vis-a-vis international shipping companies and also facilitate the growth of Indian tonnage. Indian Tonnage has steadily grown over last four years. Indian tonnage as on 1.6.2004 was 7.05 million Gross Tonnage (GT) which has increased to 10.11 million GT as on 31 August 2010. India has allowed 100 per cent FDI in the Shipping sector.

COASTAL SHIPPING

Coastal Shipping is an energy efficient, environmental friendly and economical mode of transport in the Indian transport network and crucial component for the development of domestic Industry and trade. India, with her 7,517 km. long coastline studded with 13 major ports and 200 non-major ports providing congenial and favourable conditions for the development of this alternate mode of transport.

India's Coastal Shipping Tonnage as on 31 August 2010 was 693 vessels with 1008571 Gross Registered Tonnage (GRT) and 1004746 Dead Weight Tonnage (SWT). Action plan for the development of coastal shipping is already on the anvil with Central Government. With a view to promoting coastal shipping and sailing vessel industry, the home trade vessels and sailing vessels have been exempted from the payment of Lighthouse dues under the provisions of the Lighthouse Act, 1927. Berth related charges have been reduced by 30 per cent of what is charged from other (foreign going) vessels. Besides, vessels related charges for coastal vessels and cargo related charges for coastal cargoes have also been reduced and are now charged at 60 per cent of the rate charged from other (foreign going) vessels. Tonnage tax is available to coastal ships registered under the Merchant Shipping Act. Efforts are being made to develop minor ports, which would, in turn, develop coastal shipping.

AIDS TO NAVIGATION

Since Independence, India has made rapid growth in Aids to Marine Navigation. From 17 Lighthouses at the time of Independence, the present strength of Aids to Navigation consists of 178 Lighthouses, 01 Lightship, 64 Racons, 21 Deep Sea Lighted Buoys, 02 wreck Marking Buoys and 23 Differential Global Positioning Systems (DGPS). To cater to the offshore lights and for maintaining the buoys, the Directorate General of Lighthouses and Lightships is maintaining 02 large ocean going vessels, M.V. Sagardeep-II and M.V. Pradeep. In the 11th Five Year Plan, Vessel Tracking System (VTS) Gulf of Kachchh, 12 new Lighthouses and a National Automatic Identification System (AIS) Network are proposed to be set up.

The Directorate is also in the process of establishing Navtex Chain for broadcast of safety and weather related information to local manners. The scheme of VTS-Gulf of Kachchh is likely to be made operational shortly.

TRAINING

India has had long maritime tradition. She is the 16th largest Maritime country in the World. The single largest contributing to this glorious tradition is the presence of strong dedicated, efficient and revival reservoirs of officers and rating to Merchant Navy in India. The safety and efficiency of ships are crucially depends upon professional ability and dedication of well trained seafarers. Great importance has

always been attached to the maintenance of high quality training imparted to maritime personnel in India which has facilitated Indian emerging as a major manpower supply nation to the World wide Shipping. The every increasing demand of Indian Seafarers World-wide is statement of the quality of education and training received in India.

INDIAN MARITIME UNIVERSITY

The Ministry of Shipping have set up an Indian Maritime University (IMU) on 14 November 2008 in Chennai with campuses at Chennai, Kolkata, Mumbai and Visakhapatnam as a Central University through (MU Act, 2008 (22 of 2008)). The existing seven Government and Government aided maritime training and research institutes viz. Marine Engineering and Research Institute, Kolkata, Marine Engineering and Research Institute, Mumbai, Lal Bahadur Shastri College of Advanced Maritime Studies and Research, Mumbai, T.S. Chanakya, Navi Mumbai, National Maritime Academy, Chennai, Indian Institute of Port Management, Kolkata as well as National Ship Design and Research Centre, Visakhapatnam have been merged with the IMU.

Objective

- a. To facilitate and promote maritime studies.
- b. To promote advanced knowledge by providing institutional and research facilities.
- c. To take appropriate measures for promoting innovations in the teaching learning process in inter-disciplinary studies and research.

Expected Outcomes

- a. Quality manpower: IMU will ensure not only quality manpower but also make a shift from training to education to concentrate on high end academic programmes in areas like Management, Law, Policy, Environment, Maritime Administration, etc.
- b. Service export and Foreign Exchange: The IMU will help meet the expected global shortage of manpower besides generating employment as well as earning foreign exchange.
- c. Research and Development: At present, the RandD efforts are almost negligible which renders the country dependent on others for skills and knowledge upgradation. The IMU will focus on Research and Development in the sector.
- d. Enhanced status: It will enhance the image of India as a maritime nation.

OBC Reservation

In accordance with the Central Education Institutions (Reservation in admissions) Act, 2006, the 27 per cent reservation has to be provided for the socially and educationally backward class (OBC) students in institutions of higher learning under the Govt. of India.

Total Financial Support to Indian Maritime University (IMU) as approved by Cabinet Committee on Economic Affairs (CCEA) is ₹ 282.25 crore.

Various bodies/authorities under the IMU Act, 2008 such as Executive Council, Planning Board, Finance Committee, Court, Board of Affiliation and Recognition, Chancellor, Registrar and Finance Officer, have been set up/appointed.

SHIPPING CORPORATION OF INDIA LTD

The Shipping Corporation of India Ltd. (SCI) was formed on 02.10.1961. Presently, the authorised capital of the Company is ₹ 450.00 crore and the paid up capital is ₹ 423.45 crore. The status of SCI has been changed from a Private Limited Company to Public Limited Company from 18.09.1992. The SCI was conferred the “Navratna” status by the Government of India in August 2009. Presently, the Government is holding 80.12 per cent of the share capital and the balance is held by Financial Institutions, Public and others (NRIs, Corporate Bodies etc.). SCI has been signing the Memorandum of Understanding (MoU) with the Ministry of Shipping, Government of India, and has received “Excellent” rating consistently for 18 years, upto the year 2008-09. The SCI has signed the MoU for the financial year 2010-11 with the Ministry of Shipping on 31 March 2010.

As on 1 June 2010, the share of SCI in total Indian tonnage in terms of GT is around 30 per cent and in DWT terms 32 per cent. Presently, the SCI's fleet stands at 75 vessels aggregating about 2.9 Million GT (5.1 Million DWT) comprising Cellular Container Vessels, Crude Oil Tankers (including a Combination Carrier), Product Tankers, Bulk Carriers, LPG/Ammonia Carriers, Phosphoric Acid Carriers, Passenger-cum-Cargo Vessels and Offshore Supply Vessels. The SCI provides Liner and Passengers Services, Bulk Carrier and Tanker Service, Offshore Services and Specialized Services.

Additionally, the SCI also manages 67 vessels aggregating to 0.32 Million GT (0.22 Million DWT) on behalf of two JVCs viz. India LNG Transport Company No.1 and India LNG Transport Company No. 2, Andaman and Nicobar Administration, Union Territory of Lakshadweep Administration, Geological Survey of India (Ministry of Mines), Ministry of Earth Sciences (Department of Ocean Development), and Oil and Natural Gas Corporation (PSU). SCI's managed fleet includes LNG Tankes, Passenger Vessels, Passenger-cum-Cargo Vessels, Bunker Barge, Research Vessels, Ocean Research Vessel, Fishing and Oceanographic Research Vessel, Offshore Supply Vessels, Seismic Survey Vessel, Well Stimulation Vessel, Diving Support Vessel. Unlike conventional cargo carrying vessels, these managed vessels perform specialized functions and require expert skills for their operations. Further, SCI also mans an LNG Tanker of its third JVC viz. India LNG Transport Company No. 3.

The highly diversified fleet of the SCI includes modern and fuel-efficient ships giving it a qualitative status as also a distinct competitive edge over other fleet owners.

The SCI has maintained a consistent track record of profitability and dividend. Its Total Income for the financial year 2008-09 was ₹ 4,564.5 crore and Net Profit after Tax ₹ 940.7 crore, and it has paid a dividend of 65 per cent on the increased paid-up share capital after issue ₹ 3,902.7 crore and the net profit after tax ₹ 376.9 276.9 crore. The Company has proposed a Dividend of 50 per cent.

SETHUSAMUDRAM SHIP CHANNEL PROJECT

The Government of India through Ministry of Shipping has set up a “Special Purpose vehicle” (SPV) in the name and style “Sethusamudram Corporation Limited” (SCL) to raise finance and to undertake such other activities as may be necessary to facilitate creation and operation of a navigable channel from Gulf of Mannar to Bay of Bengal through Palk Bay (Sethusamudram Ship Channel). This Project is funded by way of equity contributions from various PSUs and Ports.

The dredging in Adams Bridge region has been stopped in view of the Hon'ble Supreme Court order dated 31 August 2007 and 14th September, 2007. Pursuant to

orders of the Hon'ble Supreme Court, a Committee of Experts has been constituted under the Chairmanship of Dr. R.K. Pachauri, Director General, the Energy and Resources Institute to consider the alternative alignment in respect of the Sethusamudarm Ship Channel Project. Based on the recommendation of the Expert Committee, National Institute of Oceanography (NIO), Goa has been assigned the task of undertaking Environment Impact Assessment (EIA) of the proposed alternative alignment.

COCHIN SHIPYARD LIMITED, KOCHI

Situated in the south western coast of India in the city of Kochi, State of Kerala, Cochin Shipyard is the largest shipyard in the country. Incorporated in the year 1972, Cochin Shipyard can build ships upto 1,10,000 DWT and repair ships upto 1,25,000 DWT. The yard has built varied types of ships including tankers, bulk carriers, port crafts, offshore vessels, tugs and passenger vessels. The orders executed by CSL in recent past includes bulk carriers for M/s Clipper Group, Bahamas; Firefighting tugs for M/s ATCO, Saudi Arabia and Platform Supply vessels for M/s Deep Sea Supplies, Norway; M/s Tidewater, USA and M/s Vroon Offshore AS, Netherlands.

The yard's ship building order book position as on 01.06.2010 includes 10 Nos. of Platform Supply Vessels for Shipping Companies of Norway, USA, Netherlands and India and 4 Nos. of Anchor Handling Tugs for Shipping Companies of Cyprus and India. The Indigenous aircraft Carrier for the Indian Navy is also presently under construction in the shipyard. This will be the biggest warship ever built in India. The yard is also a leading ship-repairer of the country and has repaired more than 1200 ships of all types. These include up-gradation of vessels and Jack Up Rigs belonging to ONCG, periodical lay up repairs and life extension of ships including Aircraft Carrier of Navy and Cost Guard. The yard had been consistently achieving profits for the last several years. Considering its achievement the Government granted *Miniratna* status on 21-7-2008.

HOOGLY DOCK AND PORT ENGINEERS LTD.

Hooghly Dock and Port Engineers Limited (HDPEL), Kolkata became a Central Public Sector Undertaking in 1984. The Company has two working units in Howrah District of West Bengal, one at Salkia and another at Nazirgunge. The installed capacity in shipbuilding is 1,100 tonnes per annum and in ship-repairs 125 ships power annum. Apart from a dry dock and a jetty, it has six slipways. The yard is capable of constructing various types of ships (including passenger ships) and other vessels such as dredgers, tugs, floating dry docks, fishing trawlers, supply-cum-support vessels, multipurpose harbour, vessels, light house tender vessels, barges, mooring launches, etc. and undertaking repairs of different types of vessels.

HDPEL at present has orders worth ₹ 134.00 crore for shipbuilding, The Shipbuilding orders include 6 nos. of Workboats for IWAI besides one no. of Hydraulic Surface Dredger, one no. of Self loading Cargo Vessels. HDPEL has secured order from Indian Navy for construction of 4 nos. 1000 Ton Fuel Barges with an option for construction of two more barges.

CARGO SUPPORT TO INDIAN LINES

As per the existing Government policy, all import contracts are to be finalized on FOB (Free On Board) basis in respect of Government owned/controlled cargos on behalf of Central Government Department/State Government Department and Public Sector Undertaking under them with a view to retain control over shipping arrangements with the country and for providing cargo support to Indian flag vessels by providing

first right of refusal. For meeting the above objective the policy provides for centralized shipping arrangements through the Chartering Wing (Transchart) in the Ministry of Shipping.

As regards to Chartering of vessel for movement of cargos on private account the same are regulated through the Director General of Shipping by granting permission to the private charterers after taking into consideration the availability of Indian flag vessels by granting first right of refusal to Indian flag vessels.

INLAND WATER TRANSPORT

India has one of the longest navigable and inland water networks. There is over 14000 kms length of navigable river. But cargo transport through these inland waterways is, presently less than 1 per cent of the total cargo payment in the country. The Government, therefore, is encouraging users to make use of navigable rivers by taking a comprehensive approach to development of IWT sector.

Inland waterways Authority of India (IWAI) was set up in 1986 for regulation and shipping and navigation. IWAI is primarily responsible for development, maintenance and regulation of National Waterways.

Five waterways have been declared as national Waterways as under:

- * Allahabad - Haldia Stretch (1620km) of the Ganga-Bhagirathi-Hooghly river system (NW-1) in 1986.
- * Sadiya - Dhubri stretch (891 km) of Brahmaputra river (NW-2) in 1988.
- * Kottapuram-Kollam stretch of West Coast Canal alongwith Chempakara Canal and Udyogmandal Canal (205 km) Nw-3 in 1993.
- * Kakinada-Puducherry stretch of Canal and Kalurelly Tank, stretches of river Godavari and Krishna (1995 km).
- * Talcher Dhamra Stretch of river Brahmani, Geonkhali Charbatia stretch of East Coast Canel, Charbatia-Dhamra stretch of Matai river alongwith Mahanadi delta river system (623 km.)

IWAI is concentrating on making the five National Waterways fully functional by providing fairway with desired width and depth, 24 hours navigational aids for safe navigation and terminals for loading/unloading of cargo.

CRUISE SHIPPING

Another important maritime area that promises immense potential for growth is cruise shipping. In the absence of Indian flags sailing in this segment, the Ministry has relaxed cabotage to allow foreign flag cruise vessels do coastal legs without hassle. The Government is working on simplifying cruise shipping affairs and this invites greater interest among global cruise operators.

CENTRAL INLAND WATER TRANSPORT CORPORATION LTD (CIWTC) KOLKATA

Central Inland Water Transport Corporation Ltd. (CIWTC) was incorporated on 22nd February 1967 by taking over all the assets of the erstwhile River Steam Navigation Co. Ltd. The Principal Activity of the Corporation is the transportation cargo by barges through Inland Waterways in the country and through the routes identified in the Protocol on Inland Water Transport between India and Bangladesh. Both the Registered office and Corporate office of CIWTC are located in Kolkata and various branches are at Guwahati, Karimganj, Badarpur, Dhubri, Patna etc. The existing fleet strength of the CIWTC is about 101 vessels comprising 21 Pusher Tugs, 15 self

propelled carriers, 58 Dumb Barges, 3 oil Tankers and 4 Over Dimensional Cargo Carriers, During 2009-10 CIWTC transported 189,045 Metric Tonnes of cargo.

PORTS DEVELOPMENT

Private Sector Participation in Port Projects

Upon the entry of private sector in the Ports sector as a sequel to the opening up of the Indian economy, a Model Concession Agreement (MCA) has been finalized to ensure transparency in the selection process for award of contracts and to enable the ports to have a standard model for concession agreements with the scope of making project/commodity specific alteration to suit the specific requirements of the project. The objective is to give a fillip to private investment in the port sector. In the year 2009-10, 13 projects of berth construction/mechanization etc were awarded under the Public Private Partnership mode by the Ministry of Shipping.

For mobilizing substantial resources required for major expansion in the port infrastructure sector in the country to handle the sea borne traffic on account of increasing foreign and coastal trade and in order to improve efficiency, productivity and quality of service as well as to bring in competitiveness in port services, the port sector was thrown open to private sector participation in 1996.

Private sector Participation Guidelines (PSP) were formulated and issued on 26th October, 1996. The following areas have been identified for participation/investment by the Private Sector:-

- (i) Leasing out existing assests of the port.
- (ii) Construction of additional assets, such as:
 - (a) Construction and operation of container terminals.
 - (b) Construction and operation of bulk, break bulk, multipurpose and specialized cargo berths.
 - (c) Warehousing, Container Freight Stations, Storage Facilities and Tank Farms
 - (d) Cranage/Handling Equipment
 - (e) Setting up of Captive Power Plants.
 - (f) Dry Docking and Ship Repair Facilities.
- (iii) Leasing of equipment for port handling and leasing of floating crafts from the private sector.
- (iv) Pilotage.
- (v) Captive facilities for port based industries

In terms of para 4 - 'Regulatory Framework' of the aforesaid guidelines, the ports were directed to ensure that private investment does not result in creation of private monopolies and that private facilities are available to all users on equal and competitive terms. Since the restrictions were not elaborated, subsequent clarifications/directives had to be issued on a case to case basis by the Ministry where it was clarified to all Chairpersons that the successful bidder of the previous terminal should not be allowed to bid for the immediate next terminal/berth that was being proposed to be bid out.

The need for formulating a policy for prevention of private monopoly in the Port Sector was felt for ensuring healthy competition amongst the private operators and smooth award of projects for capacity augmentation at the Major Ports. In exercise of

the powers conferred upon the Central Government under Section 111 of the Major Port Trusts Act, 1963 and in consultation with Chairpersons of all Major Ports as well as stake holders, the following policy has been laid down w.e.f. 2.8.2010 for preventing private sector monopoly in Major Ports.

If there is only one private terminal/berth operator in a port for a specific cargo, the operator of that berth or his associates shall not be allowed to bid for the next terminal/berth for handling the same cargo in the same port.

For the purpose of this policy, the terms

- (i) 'Operator' includes consortium members of the bidder:
- (ii) 'Associates' means, in relation to the Applicant/Consortium members, a person who controls, is controlled by, or is under common control with such applicant/Consortium Member (the Associate). As used in the definition, the expression "control" means, with respect to a person which is a company or corporation, the power to direct the management and policies of such person by operation of law.
- (iii) 'Berth' shall have the same meaning as "Wharf" given in Section 2 (za) of the MPT Act, 1963.
- (iv) 'Specific Cargo' means (i) containers (ii) liquid bulk, (iii) dry bulk or (iv) multipurpose/other general cargo.

All Major Ports have been directed to follow the aforesaid policy provisions while awarding projects to private parties through Public Private Partnership (PPP) route so as to avoid private sector monopoly in the Major Ports and also incorporate these provisions in their Request for Qualification and Request for Proposal to give effect to the policy in relevant cases. The policy has been made applicable to Request for Qualification (RFQs) issued on or after 2.9.2010.

IMPORTANT PROJECTS

In the current year 2010-11, 3 PPP projects have been awarded so far at the Major Port at an estimated cost of ₹ 2126.47 crores and capacity of 27 MT.

An International Container Trans-shipment Terminal at Cochin Port is being developed with an investment of over ₹ 2000 crores. Substantial progress has been made in the construction of the project which is likely to be operationalised in the financial year 2010-11.

The second container terminal at Chennai Port with a capacity of 9.6 MTPA has been operationalised in the year 2009-10.

PORTS OPERATION

Ennore Port Limited

Ennore Port Limited (EPL), the twelfth Major Port, is the first Corporate Major Port of India. The Ennore Port Limited has been registered under the Companies Act 1956 on 11 October 1999. The Port commenced commercial operations on 22 June 2001. The first phase of development of Ennore Port from a Greenfield situation was made with an investment of about ₹ 1000 crores.

The Ennore Port Ltd is making profit since 2005-06. Having regard to its continuous profit making record, *Miniratna* Category I status was conferred on Ennore Port by the Government of India. Ennore Port has signed MoU with the Department of Shipping for the first time in the financial year 2006-07. The company achieved "Excellent" MoU score during all the last three years.

During the Financial Year ended 31 March, 2010, Ennore Port Ltd, has reported a pre-tax and post tax profit of ₹ 59.46 crores and ₹ 48.16 crores respectively as against ₹ 46.91 crores and ₹ 41.46 crores reported in the previous year ended 31 March 2009 and it has declared dividend of 20 per cent on PAT as against 15 per cent on PAT, an increase of 5 per cent on PAT over the previous year.

The Port has taken implementation of Projects identified in NMDP as Phase II development and successful in attracting an investment of ₹ 2600 crores on development of various cargo terminals-liquid bulk (₹ 250 crore) dry bulk (TNEB Coal: ₹ 70 crore. Common user Coal - ₹ 400 crore and Iron Ore - ₹ 480 crore) and 1.5 Mieu Container Terminal (₹ 1400 crore) on PPP-BOT model. EPL has also planned an ambition Capex programme of ₹ 1600 crores during the next five years as common infrastructure facilities to facilitate the commissioning of PPP projects. The projects include deepening of the Port's approach channel to 20 metres for handling cape size bulk carriers and augmenting Rail/Road connectivities.

CARGO TRAFFIC

During the Period from April 2009 to March 2010, all Indian Major Ports, namely, Kolkata/Haldia, Paradip, Visakhapatnam, Chennai, Ennore, Tuticorin, Cochin, New Mangalore, Mormugao, Mumbai, Jawaharlal Nahru Port at Nhava Sheva, and Kandla have handled cargo traffic of 560.97 Million Tonnes as against 530.53 Million Tonnes during the same period of previous year, registering a variation of (+) 5.74 per cent

24X7 CUSTOMS OPERATIONS

The Task Force of the Department of Commerce to reduce transaction cost involved in exports has recommended that customs operations should be made available on 24 x 7 basis at identified 14 customs locations, especially on weekends. This recommendation has been accepted by the Government.

In pursuance to the recommendations given by the Inter Ministerial Group on Customs Procedures and functioning of container Freight Stations and Ports, Customs Department with a view to increasing operational efficiency, decided to introduce 24 x 7 operations of seaports located across the country Vishakhapatnam, Kolkata, Mundra, Okha, Sikka, Mangalore, JNPT, Mumbai, Paradeep, Gopalpur, Ennore and Chennai.

These 24 x 7 operations in the customs stations mentioned will be on trial basis in the following phases:

- (a) Phase 1: Provide service for delivery of export goods (15 days)
- (b) Phase 2: Provide delivery for RMS facilitated import goods (15 Days)
- (c) Phase 3: Provide facility of assessment and examination of import/export goods (15 days)

After the total 45 days trial period, the outcome will be reviewed and based upon the success achieved subject to getting additional staff sanction and custodians, CHAs, banks and other related agencies agreeing to provide necessary complementary services, a decision will be taken by Customs to expand the services to the other customs locations.

HELP PROVIDED TO CWG

In pursuance of the directions of Committee of Secretaries dated 18/08/10, Ministry of Shipping accorded highest priority to the consignments meant for Common Wealth

Games and instructed JNPT, Mumbai and Mundra to accord priority for the vessels carrying the consignments for berthing, unloading and onward transshipment to various CFS located and onward transshipment to various CFS located in Delhi. Ministry of Shipping appointed JS (Ports) as the nodal officer to liaise with organizing committee and ensure smooth handling of CWG consignments and the ships carrying them at the Ports.

Ministry of Shipping continuously monitored the arrival of the CWG consignments at the ports and informed the Cabinet Secretariat and Organizing Committee of CWG about the updates from time to time.

DREDGING CORPORATION OF INDIA LTD

Dredging Corporation of India Limited (DCI) was established in 1976 to provide integrated dredging service to the Major Ports of the country. DCI is a *Miniratna* Category - 1 Public Sector Undertaking under the administrative control of Ministry of Shipping, Government of India. The Company is a Schedule "B" Company. Clients include Major Ports, non-Major ports, Indian Navy, State Government etc.

The Company, as on date, has 10 Trailer Suction hopper Dredgers (TSHDs) and 3 Cutter Suction Dredgers. Order for two more ISHDs was placed in April 2010. One Back Hoe Dredger is expected to join fleet in November 2010.

The paid-up capital of the Company is ₹ 28.00 crores divided into 2,80,00,000 equity shares of ₹ 10/- each of which 78.56 per cent i.e. 2,19,97,700 share are held by President of India.

For the year 2009-10 the Company achieved a total income of ₹ 694 crore and profit after tax of ₹ 70 crore. The Company has achieved a MoU rating the "Excellent" for the year 2009-10.

The Company is listed in Mumbai, National, Delhi and Kolkata Stock Exchanges. The number of shareholders is about 53000. The Company has declared a dividend of 30 per cent for the year 2009-10.

The Company has adopted a Corporate Social Responsibility Policy for fulfilling its obligation to the society at large. The Company would be undertaking development activities in consultation with the Government administration and other specialist agencies.

CIVIL AVIATION

The Ministry of Civil Aviation is responsible for the formulation of national policies and programmes for development and regulation of civil aviation and for devising and implementing schemes for orderly growth and expansion of civil air transport. Its functions also extend to overseeing the provision of airport facilities, air traffic services, carriage of passengers and goods by air, safeguarding civil aviation operations, regulation of air transport services, licensing of aerodromes, air carriers, pilots and aircraft maintenance engineers. The Ministry also administratively controls the institution of Commission of Railway Safety, which is responsible for the safety in rail travel and operations in terms of the provisions of the Railways Act.

India has been a member of the International Civil Aviation Organisation (ICAO) and is also on the Council of ICAO since its inception. The civil aviation sector has three main functional divisions—regulatory, infrastructural and operational. The civil aviation sector in India has seen an unprecedented growth in the recent years. As on date there are a large number of companies providing passenger transport and cargo

handling services in the country. The Air Transport Companies are both in the public sector and in the private sector. In the public sector, there are National Aviation Company of India Limited (Air India), and its subsidiaries viz. Alliance Air, Air India Charters Ltd, (Air India Express) etc.

Apart from Air India, Indian Airlines, Alliance Air and Air India Charters Ltd., there are at present seven private scheduled operators, viz. Jet Airways (India) Ltd., Jetlite Airlines, Go Airlines (India) Pvt. Ltd. Kingfisher Airlines, Spicejet Ltd., Paramount Airways Pvt. Ltd., and Inter Globe Aviation Ltd. (IndiGO) operating on the domestic sector providing a wide choice of flights and connectivity to various parts of India.

Besides above, a new category of Scheduled airlines i.e. Scheduled Air Transport (Regional) services has been introduced to enhance connectivity to smaller cities and within a region MDLR airlines is operating as regional scheduled airlines in Northern Region.

Passengers carried by domestic airlines from January to July, 2010 were 298.71 lakh as against 247.48 lakh in the corresponding period of year 2009 thereby registering a growth of 20.7 per cent.

Three cargo airline viz. Blue Aviation Pvt. Ltd., Deccan Cargo and Express Logistics (Pvt.) Ltd. and Aryan Cargo Express Pvt. Ltd. are operating scheduled cargo services in the country.

INDIA-US SUMMIT

The 2nd India-US Aviation Partnership Summit was held in USA from 07-09 December, 2009, in which a high level delegation led by Secretary in the Ministry of Civil Aviation participated. The event attracted excellent response. Over 200 representatives from 80 companies participated in addition to Government delegation. The Joint aviation Steering Committee Working Group Meetings were also held during the Summit. On the sidelines of the Summit, the delegation also held meetings with the Federal Aviation Administration, Transportation Security Administration and the US Trade and Development Agency.

The Summit was designed to foster Government to Government and industry to industry dialogues on key issues relating to India's on-going aviation modernization, aviation safety, air traffic control management, aviation security, airspace utilization etc.

The Summit served as a very useful forum for exchange of views on technical, policy and commercial issues. It assisted Indian Civil Aviation agencies and aviation industry representatives in identifying advanced technologies and practices that would best suit the expansion and modernization needs.

Signing of MoUs under India-France civil aviation co-operation

Three MoUs were signed on 11 February, 2010 between Directorate General of Civil Aviation of India and Bureau of Enquiry and Analysis for Civil Aviation Safety (BEA) of France relating to Aircraft Accident and Incident Investigations, between Airports Authority of India and French Civil Aviation Authority and between Directorate General of Civil Aviation of India and DGAC of France in order to pave way for the India—France civil aviation technical co-operation.

Amendments of Air Services Agreements (ASAs) with foreign countries

Keeping in view the recent developments in the civil aviation sector, and with a view to modernize and update the existing ASAs with foreign countries as per the ICAO

templates, bilateral air services consultations were held in 2010 with foreign countries viz. Zimbabwe, Indonesia, Ireland, Brazil, UK and Iran and the respective ASAs have been amended and finalized.

Also, Bilateral Air Services Agreements were formally signed with Bhutan, Iceland, Nepal, Bosnia and Herzegovina, South Africa and Iran. Apart from these, new Air Services Agreements have been initialled with Senegal, Barbados and Rwanda.

Technical co-operation agreements with Nepal and Afghanistan

Technical co-operation agreements were signed by the Director General of Civil Aviation and Airports Authority of India with the Nepalese and Afghan Civil aviation authorities in order to provide active technical support including training of personnel to these countries by India to promote and develop civil aviation sector.

Indo-EU civil aviation co-operation programme

Under the Joint Action Plan, a Civil Aviation Co-operation Project-II has been agreed to. Its Terms of Reference (TOR) have been finalized. The project called "Institutional Capacity Building in the Civil Aviation sector in India (ICAA)" has been started under the India—EU civil aviation co-operation.

India—US Aviation Joint Working Group on Security

The India-US Aviation Joint Group Meeting on Security was held in New Delhi on 20-21 January, 2010. During this meeting two MoUs on deployment of Air Marshals and Co-operation in Airport Technical Visits were signed between the Government of India and the Government of United States of America. The two MoUs mark the beginning of an ongoing co-operation between the two countries in matters of security.

India-EU ATM Symposium

Under India—EU project on civil aviation co-operation, a high level EU-India ATM Symposium was held in New Delhi on 23-24 November, 2009. The purpose of this technical session was to present and exchange views on European and Indian initiatives on ATM such as the Single European Sky Legislation, the SESAR programme and those undertaken by India and to explore together the precise field of co-operation that may set up the EU—India ATM agenda in the future.

DIRECTORATE GENERAL OF CIVIL AVIATION

The Directorate General of Civil Aviation (DGCA) is the regulatory body in the field of civil aviation. It is responsible for:-

- Regulation of air transport services to/from and within India in accordance with the provisions of the Aircraft Rules, 1937;
- Licensing of pilots, aircraft maintenance engineers and monitoring of flight crew standards;
- Registration of civil aircraft;
- Laying down airworthiness requirements for civil aircraft registered in India and grant of certificate of airworthiness to such aircraft;
- Coordination of the work relating to International Civil Aviation Organization;
- Investigation of minor air accidents and incidents and rendering technical assistance to the Courts / Committees of Inquiry appointed by the Government;
- Supervision of Training activities of Flying/Gliding Clubs

- Licensing of aerodromes and air carriers;
- Safety oversight and surveillance of air carriers and aerodromes;
- Rendering advice to Government on matters pertaining to air transport including bilateral air services agreements with foreign countries;
- Processing amendments to the Aircraft Act, 1934 and the Aircraft Rules 1937, and other Acts relating to aviation, with a view to implementing in India the provisions of the Chicago Convention and annexes thereto and other international conventions relating to aviation;
- Type certification of aircraft.

BUREAU OF CIVIL AVIATION SECURITY

The Bureau of Civil Aviation Security (BCAS) was initially set up as a Cell in the DGCA in January 1978 on the recommendation of the Pande Committee constituted in the wake of the hijacking of an Indian Airlines flight on 10th September, 1976. The role of the Cell was to coordinate, monitor, inspect and train personnel in Civil Aviation Security matters. It was reorganized into an independent Department on 1st April, 1987 under the Ministry of Civil Aviation following the Kanishka Tragedy in June 1985.

The main responsibility of BCAS is to lay down standards and measures in respect of security of civil flights at international and domestic airports in India and Indian aircraft operators at foreign airports. It is the regulator for civil aviation security in the country and is responsible for laying down the standards for pre-embarkation security and anti-sabotage measures in respect of civil flights and ensuring their compliance through regular Inspections and Security Audits. The aim of BCAS is to safeguard Civil Aviation operations against acts of unlawful interference and it is the regulatory authority for discharging all relevant national and international obligations in respect of training of personnel in aviation security responsibilities which include, inter alia, planning and co-ordination of all aviation security related activities, operational emergencies and crisis management.

BCAS is headed by Commissioner of Security (Civil Aviation) who is the Appropriate Authority to ensure development, maintenance, updating and implementation of National Civil Aviation Security programme for India and fulfill all international obligations in this context. The BCAS has its Headquarters in New Delhi and at present has four Regional offices located at Delhi, Mumbai, Kolkata and Chennai airport. Its four new Regional Offices are to be created, in pursuance of the approval of the proposal for restructuring and strengthening the BCAS. A post of Joint Commissioner of Security (CA) has also been created to straighten the senior management level at the BCAS Headquarters.

INDIRA GANDHI RASHTRIYA URAN AKADEMI

The Indira Gandhi Rashtriya Uran Akademi (IGRUA) was set up at Fursatganj, Raebraeli (Uttar Pradesh) to bring about a quantum improvement in the standards of flying and ground training of Commercial Pilots in the country. The Akademi is equipped with most modern and sophisticated trainer aircraft, up-to-date audio-visual training aids and other facilities for effective ground training. It employs qualified flying and ground instructors, with long experience in the field of aviation and flying training. The aim at IGRUA is not only to train to make a pilot but also to make one an effective systems manager in aeronautics. The flying trainees of the

Akademi acquire the standards required for their transit with ease into the cockpits of the airlines. The Akademi is an Autonomous Body under the control of the Ministry of Civil Aviation. The Governing Council with Secretary, Civil Aviation as its Chairman, is the highest body of the organization. It is headed by a director who is assisted by Departmental Heads, such as, Chief Flying Instructor, Chief Ground Instructor, Chief Engineer and Manager-HR, Manager-Services and Manager-Finance.

The Akademi has made remarkable expansion of its existing infrastructure, viz. doubling the capacity of hostel from 72 fully furnished rooms to 144 including a 20 room girls' hostel. Construction of three 'D' type officers residential quarters, store/class room buildings, recarpeting of roads, installation of solar water heating system in hostels, installation of air-conditioning plant having capacity of 60 TR x 3, laying of new water supply lines, renovations of Sports Complex, Recreation Centre, Mess Kitchen, etc. are the other major infrastructure upgradations carried out in the institutional area. In the airport side, runway re-carpeting, construction of a new hangar, expansion of Apron, installation of high mast lighting, etc. have been carried out. The Akademi's infrastructure, such as exclusive Runway and ATC, Night Flying facilities including navigation aids like Instrument Landing System (ILS) and Precision Approach Path Indicator (PAPI) are the hallmarks of a flying training institution that matches contemporary international standards.

COMMISSION OF RAILWAY SAFETY

The Commission of Railway Safety deals with matters pertaining to safety in rail travel and operation, and for this purpose performs statutory functions as laid down in the Railways Act, 1989 and the rules framed thereunder. Formerly called the Railway Inspectorate, it functioned under the control of the Railway Board to secure its independence from the authority administering the Railways. This separation was carried out pursuant to the recommendations of a committee called the 'Pacific Locomotive Committee', which was endorsed by the Central Legislature. After its separation, the Inspectorate was attached to the Air Wing and placed under Department of Communications. It came under the administrative control of the Ministry of Tourism and Civil Aviation in May 1967, subsequently redesignated as the Ministry of Civil Aviation.

The main task of the Commission is to direct, advise and caution the railway executive through its inspectional, investigatory and advisory functions and thereby assist them in ensuring that all stipulated measures are taken in regard to the soundness of rail construction and safety in train operation.

The Commission is headed by the Chief Commissioner of Railway Safety who is also the Principal Technical Adviser to the Government of India in all matters concerning it. The Headquarters of the Commission is located at Lucknow. The Chief Commissioner directs the technical activities of the Commission and issues instructions for the guidance of Commissioners of Railway Safety in respect of holding statutory inquiries into serious railway accidents, inspection of new lines including electrification of existing lines prior to their opening for public carriage of passengers and sanction for running of new locomotives/rolling stock. The Commission has 9 circle offices, viz. two with Headquarters at Mumbai, 3 with Headquarters at Kolkata and one each with Headquarters at Bangaluru, New Delhi, Lucknow and Secunderabad. Each circle office is under the charge of a Commissioner. In a major development, Government of India has decided to use institution of Commission of

Railway Safety for safety certification of upcoming metro rail systems to ensure uniformity in safety standard.

AIRPORTS AUTHORITY OF INDIA

Airports Authority of India (AAI) is a leader in building airport infrastructure along the length and breadth of the country including remote and far flung areas. Airports Authority of India came into being on 1 April 1995. AAI manages 115 airports including 23 Civil Enclaves. In addition, AAI provides CNS-ATM facilities at 11 other airports. About 2.8 million nautical square mile area of the national airspace covering the Bay of Bengal and the Arabian Sea has been assigned to AAI for provision of Air Traffic Services.

As part of modernization, Passenger New Terminal Buildings have been constructed/commissioned at Dehradun, Jaipur, Kullu, Udaipur, Gaya, Cooch Behar, Dibrugarh, Lilabari, Ahmedabad (New Departure Block for Domestic Terminal Building), Aurangabad, Bhuj, Gondia, Porbandar, Mysore, Mangalore, Trichy, Vizag, Srinagar, Trivandrum, Varanasi, Barapani (Shillong), Ahmedabad (New International Terminal Building) and Madurai. These Terminals have modern passenger facilities besides comfortable lounges/user friendly amenities and good ambience. State-of-the-art technology has been used in these Terminals.

New Terminal Buildings are under construction at Kolkata, Chennai, Chandigarh, Lucknow, Khajuraho, Ranchi, Bhubaneswar, Raipur, Bhopal, Goa, Indore and Rajahmundry airports. A Greenfield airport is under construction at Pakyong in Sikkim. Expansion and Modification of Terminal Buildings at Pune and Coimbatore airports is also in progress.

Construction of new terminal building at Leh, Port Blair, Vadodara, Jammu, Jaisalmer, Coimbatore, Puducherry and Tirupati airports have been proposed. New Greenfield Airports have also been planned at Chiethu in Nagaland and Itanagar in Arunachal Pradesh.

National Flying Training Institute Private Limited : Airports Authority of India (AAI) in collaboration with CAE, Canada has set up a Joint Venture Company in the name of National Flying Training Institute Private Limited (NFTIPL). This Institute is located at Gondia in Maharashtra. AAI holds 49 per cent equity share capital while CAE holds 51 per cent share capital in this Joint Venture Company. The Institute has been named after the late Prime Minister of India—Rajiv Gandhi National Flying Training Institute (RGNFTI).

The facility became operational in September, 2008. The objective of setting up this institute is to provide qualified and well trained pilots. The Institute, spread over an area of 12 acres has State-of-the-art Simulator, Administration Block, class rooms, hostels for boys and girls, sport complex and a wi-fi enabled cafeteria. Training is imparted on simulator and through a fleet of seven single engine aircraft (DA-40) along with one multi engine aircraft (DA-42).

Gagan Project

GPS Aided Geo Augmented Navigation (GAGAN) is an augmentation system to enhance the accuracy and integrity of GPS signals to meet precision approach requirements in Civil Aviation and it is being implemented jointly by AAI and ISRO in three phases. Technology Demonstration System will be upgraded to a full operational capability system in the second and third phase. GSAT IV being fabricated by ISRO will carry GAGAN payload. The footprint of this satellite will cover a vast

geographical area from Africa to Australia and hence would facilitate expansion of the service area of "Gagan" far beyond Indian airspace. When implemented, this would replace most of the ground-based navigational aids and it would be possible to provide precision approach and landing guidance up to category 1 to aircraft hitherto not available due to terrain conditions precluding the provision of Instrument Landing System.

The Technology Demonstration system Phase of the Project has been successfully completed and action has been initiated for Final Operation Phase (FOP).

Development of Non-metro airports by Airports Authority of India (AAI)-AAI is undertaking up-gradation and modernization of 35 non-metro airports in the country in a time bound manner as per Government's decision. In pursuance to Committee of Infrastructure's decision, AAI has also initiated the process for preparing the tender document for city side development of selected 24 non-metro airports through Public Private participation (PPP). Meanwhile, the scope of city side development has been restricted to the following activities e.g. commercial development of property on city-side, Car park and Cargo operations.

Modernization of Delhi Airport : The Operation, Management and Development Agreement (OMDA) was signed between M/s Delhi International Airport Pvt, Ltd. (DIAL) and Airports Authority of India (AAI) on 04.04.2006. The lease of the Airport to the Joint Venture Company is for an initial period of 30 years, which is extendable by another 30 years. Subsequent to the signing of OMDA, DIAL took over IGI Airport on 3rd May 2006. DIAL had prepared a 20 year Master Plan for restructuring and development of IGI Airport, projecting all the facilities which will be commissioned in a phased manner and would ultimately cater to 100 million passengers by 2036. Phase-I of the project has been completed on 31.03.2010, at an estimated project cost of ₹ 12258 crores for additional passenger handling capacity of 34 million passengers per annum (mppa). The major development works completed during the Year 2009-10 are Civil Work-T3 Passenger Terminal Building, Apron, Taxiways and the work on all 32 Mandatory Capital Projects (MCP).

Modernization of Mumbai Airport : The Operation, Management and Development Agreement (OMDA) was signed between Mumbai International Airport Pvt. Ltd. (MIAL) and AAI on 4 April, 2006, and the later took over the management and development of Chhatrapati Shivaji International Airport (CSIA) w.e.f. 3rd August, 2006 MIAL has been independently handling management and operations of CSAIA. As per the Master Plan prepared by MIAL, total project cost for development of CSIA is estimated to be ₹ 9802 crore. The target completion of this project is 31 December 2012. The major development works completed during the Year 2009-10 are S6 (Realignment of Taxiway B1 to Code F), S10 (Domestic Terminal Expansion), S9 (South-West pier), Upgradation and Realignment of Runway 14/32, T2 (New common User Terminal including MLCP and Elevated Roadways), T2 Apron etc. The work on 31 MCP has been completed.

GREENFIELD AIRPORTS

Bangaluru International Airport, Devanahalli, Bangaluru : A Greenfield airport project at Devanahalli near Bangaluru has been implemented on a Build Own Operate and Transfer (BOOT) basis for 30 years with Public-Private-Participation (PPP) at revised cost of ₹ 2068 crore. Government of Karnataka and AAI together hold 26 per cent equity and the strategic joint venture partners hold the balance 74 per cent. AAI's investment in the equity is capped at ₹ 50 crore. A Consortium led by Siemens, Germany

with Unique Zurich, Switzerland and Larsen and Toubro, India Limited, as other members have been chosen as the strategic Joint Venture Partners. The airport was commissioned on 24 May, 2008.

Rajiv Gandhi International Airport, Shamshabad, Hyderabad : A Greenfield airport has been developed in Shamshabad, near Hyderabad on Build Own Operate and Transfer (BOOT) basis with Public Private Participation (PPP) by the Government of Andhra Pradesh. The approximate cost of the Project is ₹ 2920 crore. AAI and Government of Andhra Pradesh together hold 26 per cent equity with AAI's equity being capped at ₹ 50 crore. The balance 74 per cent being held by the strategic partner, a consortium consisting of M/s GMR Enterprises and Malaysian Airports Holdings Berhad (MAHB). The airport was commissioned on 23 March, 2008.

Policy for Greenfield Airports

The Government has promulgated the Policy for Greenfield Airports on 24.04.2008. The new policy aims to streamline the approval process to facilitate strengthening and augmenting of airports infrastructure in the country. It also attempts to make the approval process more transparent and predictable. The policy does not attempt to undermine the authority of the Government/Union Cabinet. Pursuant to Policy for Greenfield Airports, a Steering Committee was constituted to monitor and facilitate the approval process of proposals received for setting up of the airport. So far, the Central Government had accorded "in-principle" approval for setting up of one Greenfield airport each at Mopa (Goa), Navi Mumbai, Sindhudurg (Maharashtra), Bijapur, Gulbarga, Hassan, Simoga (Karnataka), Kannur (Kerala), Pakyong (Sikkim), Durgapur (West Bengal), Dabra (Madhya Pradesh), Palladi (Rajasthan), Itanagar (Arunachal Pradesh).

Airport Economic Regulatory Authority (AREA)

AREA has been established on 12 May 2009 with the prime objective to create a level playing field and foster healthy competition among all major airports (Government owned, Public Partnership based, Private) encourage investment in airport facilities regulate tariffs of aeronautical services, protection of reasonable interest of users, operate efficient, economic and viable airports at notified airports. The commencement of Chapter III and Chapter VI of AERA is notified, w.e.f 1 September 2009 to enable AERA to discharge regulatory functions. AERA has got operationalized with manpower consisting of Chairperson, Secretary and other skeleton supporting staff. The AERA is in the process of formulating approach, philosophy in economic regulation of airports and air navigation services for regulation of tariff in consultation with stake holders.

Streamlining and promoting Cargo Operation

In 2009, it has been decided that the free period applicable for air cargo at all Indian airports will be available as under :

- (a) Free period for imports and exports would be calculated in terms of hours and not in days.
- (b) For import cargo, the free period would be 72 hours (i.e. 3 working days).
- (c) For export cargo, free period for airlines would be 48 hours and free period for exporters would be 24 hours. Thus, the total free period available for export cargo would be 72 hours (i.e. 3 working days). In case of public holidays on any two or more consecutive days, free period would be further increased by an additional 12 hours.

- (d) If the cargo operations at an airport take place round the clock, the counting for holidays would be considered for the purpose of reckoning of free period.

NATIONAL AVIATION COMPANY OF INDIA LTD. (AIR INDIA)

Air India and Indian merger attained its official status on the formation of National Aviation Company of India Ltd. (Air India) on 27 August 2007. Post merger the new entity is known as Air India while its mascot is retained as 'Maharajah'. The new company has the following subsidiaries under its control:

Name of Subsidiary Company	Authorised capital (₹ in crore)	Paid up capital (₹ in crore)
Hotel Corporation of India (HCI)	41.00	40.60
Air India Charters Ltd. (Air India Express)	30.00	30.00
Air India Air Transport Services Ltd.	100.00	00.05
Air India Engineering Services Ltd.	10.00	00.05
Vayudoot Ltd	50.00	36.42
Airlines Allied Services Ltd. (Alliance Air)	05.00	02.25
IAL Airport Services Ltd.	100.00	00.05

HCI : The Hotel Corporation of India Limited (HCI) is a Public Limited Company wholly owned by Air India Limited and was incorporated on July 8, 1971 under the Companies Act, 1956 when Air India decided to enter the hotel industry in keeping with the then prevalent trend among world airlines. The objective was to offer to the passengers a better product, both at the International Airport and at other places of tourist interest, thereby also increasing tourism to India. However, in 2002-03, three properties of HCI, viz, Indo-Hokke Hotel Limited (Centaur Hotel, Rajgir), Centaur Hotel, Juhu Beach and Centaur Hotel, Mumbai airport were sold off. The remaining units of HCI are Centaur Hotel, Delhi Airport, Centaur Hotel Lakeview, Srinagar and Flight Kitchens at Delhi and Mumbai.

Air India Express : Air India Express has a fleet of seven leased and six owned B737-800 aircrafts. Commencing with 26 Kerala/Gulf flights, Air India Express operations have grown and new routes have been added to the network. Currently, 57 international flights are operated on different routes. In addition, Air India Express operated five weekly flights on the Chennai/Kuala Lumpur Sector on behalf of Air India. Effective from 11 January 2007, Air India flights between India and Bahrain/Doha are being operated by Air India Express. Effective from summer 2007, with the fleet expansion, it is anticipated that Air India Express will operate approximately 130 flights per week. New cities such as Tiruchirapally, Jaipur, Lucknow, Hyderabad and Kolkata are likely to be added to the network. In addition, frequencies on some of the existing routes may be increased in response to market requirements.

Alliance Air : Historically Alliance Air was set up on 15 April 1996 as a separate company envisioned to function as profit centre of erstwhile Indian Airlines Limited to effectively utilize the Boeing 737 aircraft fleet and to improve productivity and profitability of Indian Airlines Ltd. At present, Alliance Air has taken a lease 4 ATR-42 aircraft and commenced scheduled operations in the North-East Region with effect from 2 January 2003. These aircraft have been deployed exclusively in the North-East Region in terms of MoU with the North-Eastern Council. In return, a

budgetary support of ₹ 175 crore provided over a period of five years by the NEC during the 10th Five Year Plan. Throughout the period of the MoU, North-Eastern Council is required to facilitated Alliance Air in obtaining concessions on ATF, Landing RNFC rates, etc. whenever available. The MoU was effective from the financial year 2002-03 for a period of five years, which was later extended for another one year i.e. December 2008. Besides the ATR aircraft, Alliance Air operates B 737-200 aircrafts on various regional/trunk routes.

As on 1 July 2010, the total operational fleet strength of Air India is 134 of which 107 are owned and 27 are leased. As a part of fleet augmentation, an order for the purchase of 111 new aircraft (50 for erstwhile Air India, 18 for Air India Express and 43 for erstwhile Indian) has been placed by Air India.

As a part of improvement of the infrastructure, Air India is in the process of creation of bases for new aircraft as under:

- Thiruvananthapuram—As a part of setting up a base for B737 aircraft, a MRO facility is being set up at Thiruvananthapuram. The hanger facility for the same is nearing completion.
- Delhi—As a part of setting up the additional base at Delhi for B777 and B787 aircraft, a wide body hanger facility is being set up at Delhi for these aircraft.

With the growing increase in the usage of the web, Air India offers its passengers the facility booking and purchasing the tickets through the internet. Currently around 90 per cent of the domestic tickets issued are e-tickets.

For round the clock access to NACIL reservations, a toll free number has been arranged to enable passengers to get the services of booking of seats/obtaining information regarding flight arrivals /departures etc. from Call Centres have been established at Belapur in Mumbai, and Gurgaon in New Delhi to the needs of the passengers.

During the year 2009, a total of 493 Haj Charter flights were operated carrying approximately 1.20 lakh pilgrims of which 249 flights were operated by NACIL carrying approximately 45,400 passengers.

PAWAN HANS HELICOPTERS LIMITED (PHHL)

Pawan Hans Helicopters Limited (PHHL) was incorporated in October, 1985 and commenced its operations within one year of its incorporation to provide helicopter services to the oil sector, operate in hilly and inaccessible areas and make available charter flights for promotion of travel and tourism.

The present authorized capital of PHHL is ₹ 120 crore and its paid-up capital is ₹ 113.76 crore. Out of this the Government of India holds 78.5 per cent shares and the balance is held by ONGC. Its Corporate Office is located at Delhi with Regional offices at Delhi and Mumbai. It has a team of dedicated highly motivated and skilled manpower comprising of 806 regular and contractual employees which include pilots, engineers, executives and support staff. The company is headed by Chairman-cum-Managing Director and other 5 part-time directors.

The company at present has a fleet of 35 helicopters comprising of 18 SA-365N Dauphin, 8 Dauphin AS365N3, 3 Bell 206 L4, 4 Bell 407 and 2 MI-172 helicopters. The Company achieved flying of more than 4 lakh hours and 15 lakh landing on its fleet since its formation.

Since October, 1986 Pawan Hans has been providing helicopter support for offshore operation of ONGC for carrying its men and vital supplies round the clock to drilling rigs situated in Bombay Off-shore platforms. PHL operates at ONGC's Rigs (mother platforms and drilling rigs) and production platforms (wells) within a radius of 130 nm. from the main land at Mumbai. At present 12 Dauphin N and N3 helicopters are on contract with ONGC. The Company has been successful in providing all the 12 Dauphin NandN3 helicopters fully compliant with AS-4 as per the new contract with ONGC.

PHL provides helicopter support services to several State Governments namely, Arunachal Pradesh, Punjab, Meghalaya, Tripura, Sikkim, Jharkhand, Lakshadweep, Andaman and Nicobar Islands. It is also providing helicopter services to Ministry of Home Affairs (MHA) at Guwahati and GAIL. PHL runs the helicopter services from Phata to the Holy Shrine of Kedarnath during the May-June and September-October seasons, after construction of helipad at the location. The Company has succeeded in obtaining award of contract for two light single engine helicopters for a period of 3 years for helicopter services at Mata Vaishno Devi from Katra to Sanjichat under competitive bidding and the services commenced w.e.f. 3.4.2008. PHL has also got contract for deployment of helicopters for Amarnath during the season in July-August, 2010.

The Company has undertaken a pilot project for M/s. Power Grid Corporation of India Ltd. for Hotline Washing of insulators of the power transmission lines for five months. These operations were successfully carried out for the first time in India.

The Company has also got Operation and Maintenance Contract of a Dauphin N3 helicopter of Government of Gujarat, 2 Dhruv helicopters of ONGC with M/s. HAL and 4 Dhruv helicopters owned by MHA with M/s. HAL.

Pawan Hans operates flights from 39 destinations covering 64 sectors by 148 weekly flights under the aegis of the State Governments of Meghalaya, Tripura, Sikkim and Arunachal Pradesh.

27 Water Resources

WATER RESOURCES

THE Ministry of Water Resources lays down policies and programmes for development and regulation of the country's water resources. It covers sectoral planning, coordination, policy guidelines, technical examination and techno-economic appraisal of the projects, providing central assistance to specific projects, facilitation of external assistance and assistance in the resolution of inter-state water disputes, policy formulation, planning and guidance in respect of major, medium and minor irrigation, command area development, flood management and development of ground water resources etc.

The National Water Policy, 2002 lays emphasis on integrated water resources development and management for optimal and sustainable utilisation of the available surface and ground water; creation of well-developed information system; water conservation and demand management; quantity and quality aspects as well as environmental considerations; involvement of beneficiaries and stakeholders in the project planning and participatory approach in water resources management, training and research, resettlement and rehabilitation aspects of projected affected persons. The Policy also encourages Private Sector participation in planning, development and management of water resources projects for diverse uses, wherever feasible with a view to introducing innovative ideas, generating financial resources and introducing corporate management and improving service efficiency and accountability to users.

WATER RESOURCES POTENTIAL

The average annual water availability of the country is assessed as 1869 billion cubic metres (BCM) and total utilizable water resource is assessed as 1123 BCM, out of which 690 BCM is surface water and 433 BCM replenishable ground water resources.

IRRIGATION POTENTIAL

Expansion of irrigation facilities, along with consolidation of the existing systems, has been the main strategy for increasing production of food grains. With sustained and systematic development of irrigation, the irrigation potential through major, medium and minor irrigation projects has increased from 22.6 million hectares (mha) in 1951 (when the process of planning began in India) to about 102.77 mha at the end of the 10th Plan. Creation of irrigation potential of 108.21 mha has been reported to be created by State Governments by the end of 2009-10. Plan-wise irrigation potential created and utilised through major, medium and minor irrigation projects in the country is given in the table below:-

PLANWISE POSITION OF IRRIGATION POTENTIAL CREATED AND UTILISED

Plan Period	Potential (cumulative) created (Mha)	Potential (cumulative) Utilised (Mha)
Pre-Plan period	22.60	22.60
First Plan (1951-56)	26.26	25.04
Second Plan (1956-61)	29.08	27.80

Third Plan (1961-66)	33.57	32.17
Annual Plans (1966-69)	37.10	35.75
Fourth Plan (1969-74)	44.20	41.89
Fifth Plan (1974-78)	52.02	48.46
Annual Plans (1978-80)	56.61	52.64
Sixth Plan (1980-85)	65.22	58.82
Seventh Plan (1985-90)	76.44	68.59
Annual Plans (1990-92)	81.09	72.85
Eighth Plan (1992-97)	86.26	77.21
Ninth Plan (1997-2002)	93.95	81.00
Tenth Plan (2002-2007)	102.77	87.23

The creation of irrigation potential of 5.51 Mha has been reported during the first three years of 11th plan i.e. from 2007-08 to 2009-10. Thus the total cumulative irrigation potential created up to March 2010 is 108.21 Mha.

Major and Medium Irrigation Projects

Irrigation projects with a Culturable Command Area (CCA) between 2,000 and 10,000 hectares are classified as medium projects and those with CCA of more than 10,000 hectares as major projects. The expenditure incurred on major and medium projects and the irrigation potential created during various plan periods is indicated below:-

MAJOR AND MEDIUM IRRIGATION PROJECTS (EXPENDITURE INCURRED AND POTENTIAL CREATED)

Period	Outlay/expenditure incurred (Rs crore)	Potential Created (Mha)	Cumulative (Mha)
Pre-Plan period	Not available	9.70	9.70
First Plan (1951-56)	376	2.50	12.20
Second Plan (1956-61)	380	2.13	14.33
Third Plan (1961-66)	576	2.24	16.57
Annual Plans (1966-69)	430	1.53	18.10
Fourth Plan (1969-74)	1,242	2.60	20.70
Fifth Plan (1974-78)	2,516	4.02	24.72
Annual Plans (1978-80)	2,079	1.89	26.61
Sixth Plan (1980-85)	7,369	1.09	27.70
Seventh Plan (1985-90)	11,107	2.22	29.92
Annual Plans (1990-92)	5,459	0.82	30.74
Eighth Plan (1992-97)	21,072	2.22	32.95
Ninth Plan (1997-2002)	42,290	4.10	37.06
Tenth Plan (2002-2007)	82,195	5.30	42.35

The creation of irrigation potential through major and medium irrigation projects of 2.97 Mha has been reported during the first three years of 11th plans i.e. from 2007-08 to 2009-10. The total outlay in respect of major and modern irrigation projects during 2007-08 to 2009-10 ₹ 1,01,589 crore.

Accelerated Irrigation Benefits Programme (AIBP)

The Accelerated Irrigation Benefit Programme (AIBP) was launched during 1996-97 to give loan assistance to the States to help them complete some of the incomplete major/medium irrigation projects which were at an advanced stage of completion and to create additional irrigation potential in the country. The Surface Minor Irrigation Schemes of North-Eastern States, Uttarakhand, Jammu and Kashmir, Himachal Pradesh and Orissa (Koraput, Bolangir and Kalahandi districts) have also been provided Central Loan Assistance (CLA) under this programme since 1999-2000. The Grant component has also been introduced in the programme from April 2004 like in other Central Sector Schemes. As per the existing AIBP criteria implemented from December 2006, grant amounting to 25% of the project cost for major/medium irrigation projects in non-special category States and 90% grant of the project cost for major/medium/minor irrigation projects in special category States (including Koraput, Bolangir and Kalahandi Districts of Orissa) are provided to the selected projects. The minor irrigation schemes in non-special category States falling in drought prone/tribal areas are treated at par with special category States and are provided 90% grant of the project cost. Major and medium projects providing irrigation benefits to drought prone/tribal areas and flood prone areas are also eligible for 90% grant of the project cost. The State Governments have been provided an amount of about Rs. 42,919.6914 crores as CLA/Grant under AIBP since inception of this programme till date for 281 major/medium irrigation projects and 10849 Surface Minor Irrigation Schemes. After commencement of this programme, 110 major/medium projects and 7922 Surface MI Schemes have been completed so far. Another 10 more major/medium irrigation projects are expected to have been completed 2009-10. An additional irrigation potential of 5.486 million hectare has been created through major/medium irrigation projects and an irrigation potential of 0.454 million hectare has been created through Surface MI Schemes up to March 2009. Irrigation potential of 9.82 lakh ha is estimated to have been created during 2009-10 up to March 2010.

As per the existing AIBP guidelines, projects benefiting drought prone/tribal areas, projects included in the Prime Minister's relief package for agrarian distress districts of Maharashtra, Karnataka, Andhra Pradesh and Kerala, and projects in the States where the irrigation development is below the national average could be included in relaxation to one to one criteria of inclusion of new projects under AIBP. Of the 65 major/medium projects initially included in the Prime Minister's relief package for agrarian distressed districts of Andhra Pradesh, Karnataka, Kerala and Maharashtra, 39 projects have been funded under AIBP so far. The amount of grant released so far for these projects is ₹ 5149.2785 crore.

A Budget allocation of ₹ 9200 crore has been made by the Ministry of Finance for AIBP for 2010-11 which includes ₹ 2200 crore for National Projects.

Achievements made under the AIBP

Sl.No.	Year	Budget allocation (₹ in crore)	Grant released (₹ in crore)	Potential created (Lakh Hectares)
1	1996-97 to 2006-07	-	21739.86	45.668
2	2007-08	3080	5445.71	6.44
3	2008-09	6600	7598.22	6.55
4	2009-10	8000	6945.59	9.82

National Projects

On 7 February, 2008, the Union Cabinet has given its consent to the Ministry of Water Resources, proposal for implementation of National Projects with central assistance of 90% of the cost of the project as grant in the following manner:-

- (i) International projects where usage of water in India is required by a treaty or where planning and early completion of the project is necessary in the interest of the country.
- (ii) Inter-State projects which are dragging on due to non-resolution of inter-state issues relating to sharing of costs, rehabilitation, aspects of power production etc. including river interlinking projects.
- (iii) Intra-state projects with additional potential of more than 2,00,000 ha. and with no dispute regarding sharing of water and where hydrology is established.

Ministry of Water Resources has finalized the modalities of funding and guidelines for implementation of scheme of National Projects in consultation with the Planning Commission and Ministry of Finance and has sent the same to all the States and Union Territories.

HYDROLOGY PROJECT-II

Hydrology Project Phase-II has been taken up with the assistance of International Bank of Reconstruction and Development (IBRD). The agreement for the Hydrology Project-II between the IBRD (World Bank) and Government of India was signed on 19 January 2006. The project has become effective from 5 April 2006 and is scheduled to be completed by June 2012 at an estimated cost of ₹ 631.83 crore, supported with a loan of US\$ 104.98 million from IBRD. Recently, the World Bank has done mid-term review during 1-14 October 2009 and the proposed revised cost is ₹ 631.39 crore, with World Bank (IBRD) loan component of US\$ 104.98 million remaining unchanged.

The objectives of the project is to extend and promote the sustained and effective use of Hydrological Information System (HIS) by all potential users concerned with water resources planning and management, both in public and private sectors, thereby contributing to improved productivity and cost effectiveness of water related investments.

The project is being implemented in 13 States, viz. Andhra Pradesh, Chhattisgarh, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu, Goa, Punjab, Puducherry and Himachal Pradesh. The 8 central Agencies involved in the implementation are Ministry of Water Resources (MoWR), Central Water Commission (CWC), Central Ground Water Board (CGWB), India

Meteorological Department (IMD), National Institute of Hydrology (NIH), Central Water and Power Research Station (CWPRS), Central Pollution Control Board (CPCB) and Bhakra Beas Management Board (BBMB).

An important feature of the project is special studies called 'Purpose Driven Studies' for specific issues identified by the state agencies. A total of 21 proposals of surface water and 19 of ground water domain for Purpose Driven Studies (PDS) have also been finalized to be carried out by the participating agencies.

WATER QUALITY ASSESSMENT AUTHORITY

In view of the multiplicity of agencies involved in water management in the country, the Ministry of Environment & Forests (MoEF) constituted the "Water Quality Assessment Authority" (WQAA) with effect from 29 May 2001.

The Secretariat of the WQAA is in the Ministry of Water Resources. The Water Quality Review Committees have been constituted in the States with an objective to improve coordination amongst the Central and State agencies, review/assess schemes launched/to be launched to improve quality of water resources, review water quality data analysis and interpretation in order to identify problem areas and developing action plans for improving quality on a sustainable basis, identify hot spots for surveillance monitoring and to look into other specific miscellaneous issues related to water quality arising from time to time.

COMMAND AREA DEVELOPMENT & WATER MANAGEMENT PROGRAMME

The Centrally sponsored Command Area Development (CAD) Programme was launched in 1974-75. The main objective was to improve the utilization of created irrigation potential and optimize agriculture production and productivity from irrigated agriculture through a multi-disciplinary team under an Area Development Authority.

Initially, 60 major and medium irrigation projects were taken up under the CAD Programme, covering a Culturable Command Area (CCA) of about 15.00 million hectare. From 1974-75 till now 314 projects with a CCA of 28.95 Million ha have been included under the programme. After inclusion of new projects, deletion of completed projects and clubbing of some projects, there are now 139 projects under implementation. The programme was restructured and renamed as Command Area Development & Water Management (CADWM) Programme w.e.f. 1 April 2004. The scheme is now being implemented as a State sector scheme during the 11th Five Year Plan (2008-09 to 2011-12).

The National Water Policy, 2002 stresses on participatory approach in water resources management. The participation of farmers in the management of irrigation would promote responsibility for operation and maintenance and collection of water charges from the areas under the jurisdiction of Water Users' Association (WUAs). A one-time functional grant is provided to the registered WUAs under the programme. A minimum contribution of 10 per cent for beneficiaries has been made mandatory in the cost of construction of field channels, full package OFD works, reclamation of water logged areas and one time functional grant to WUAs.

The evaluation made in the past has revealed that the CAD Programme made positive impact on various important indicators, like increase in the irrigated area, productivity and production, irrigation efficiency etc. However, despite the various efforts made for efficient irrigation water management, the problem of water logging

has surfaced in many irrigated commands. Hence, under the component on reclamation of water logged areas, 521 schemes of 9 States, namely, Bihar, Gujarat, Madhya Pradesh, Jammu & Kashmir, Karnataka, Kerala, Maharashtra, Orissa and Uttar Pradesh have been approved for reclamation of 67,688 ha. of water logged area. Out of this, an area of about 50,249 ha. has been reported to have been reclaimed by these States.

REPAIR, RENOVATION AND RESTORATION (RRR) OF WATER BODIES

The Government of India sanctioned a Pilot Scheme for “National Project for Repair, Renovation & Restoration (RRR) of Water Bodies directly linked to Agriculture” in January 2005 with an estimated cost of ₹ 300 crore to be shared by Centre and State in the ratio of 3:1 proposed to be implemented during the 10th Plan period. The objectives of the scheme were to restore and augment storage capacities of water bodies, and also to recover and extend their lost irrigation potential. The Scheme has been approved for 26 districts in 15 States, viz. Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand, Karnataka, Madhya Pradesh, Orissa, Rajasthan, Tamil Nadu, West Bengal, Himachal Pradesh, J&K, Gujarat, Kerala and Maharashtra at an estimated cost of ₹ 299.92 crore, and Central Share of ₹ 197.30 crore has been released to the states so far. These projects cover 1,098 water bodies with total original culturable command area of 1.72 lakh hectare. After RRR works, an additional irrigation potential of 0.78 lakh hectare is likely to be generated. The physical work for restoration has been completed in 1054 water bodies in 15 states so far. The spillover activities are being continued during the current financial year i.e. 2009-10 in the state of Maharashtra. The irrigation potential created subsequent to pilot scheme is 1.73 lakh ha. approximately.

The Government of India approved two schemes on repair, renovation and restoration of water bodies for implementation during 11th Plan Period. The Schemes are (i) external assistance with an outlay of ₹ 1500 crore and (ii) domestic support with an outlay of ₹ 1250 crore. Under the scheme covered by external assistance, the GoI provides assistance to the extent of 25% and borrows necessary funds as loan from World Bank and 75% State share is to be borrowed from the World Bank by concerned State. Under the scheme with domestic support, funding is also in the ratio of 25:75 (Centre: State) for non-special category States and in the ratio of 90:10 for special category States (North Eastern States including HP, Uttarakhand, J&K and undivided Koraput, Bolangir and Kalahandi (KBK) districts of Orissa), drought prone/ Naxal affected/tribal areas. Public water bodies are covered under the scheme.

The scheme of RRR of water bodies with domestic support envisages convergence with the Mahatma Gandhi National Rural Employment Guarantee Act of Ministry of Rural Development for which joint guidelines have been issued. A budget provision of ₹ 399 crore has been kept during 2009-10 for these schemes of RRR of Water Bodies with domestic support/external assistance. While ₹ 190.31 crore has been released under the scheme with external assistance during 2009-10 as per information available in CAAA's website, a sum of ₹ 146.16 crore has been released under the scheme with domestic support during the year.

The scheme of RRR of water bodies includes the comprehensive improvement of Water Bodies, catchment area treatment, command area development and capacity building of stakeholders, and increased availability of drinking water. The guidelines for the scheme of RRR of water bodies with domestic support/external assistance have already been circulated to the State Governments. During the year 2010-11, a

budget provision of ₹ 600 crore has been kept for meeting the central component of funding under the scheme of RRR of water bodies with domestic support. A sum of Rs. 70 crore has since been released to Government of Andhra Pradesh under the scheme during 2010-11.

Under the scheme, with domestic support, about one lakh water bodies having a CCA of 9 lakh ha. at a cost of Rs. 4,000 crore would be covered. The water bodies with the size of 20 ha - 2000 ha are covered under the scheme with external assistance. The total project cost envisaged under the scheme during 11th Plan period is ₹ 6000 crore. The scheme will cover about 23,000 water bodies across the country with a culturable command area of 16.8 lakh hectare.

Under the scheme of RRR of water bodies with external assistance, the World Bank Loan Agreements have been signed with Tamil Nadu (for ₹ 2182 crore to restore 5763 water bodies having a CCA of 4 lakh hectare), Andhra Pradesh (for ₹ 835 crore for restoration of 3000 water bodies with a CCA of 2.5 lakh hectare), Karnataka (for ₹ 268.78 crore for restoration of 1,224 water bodies with CCA of 0.52 lakh hectare) and Orissa (for ₹ 448 crore for restoration of 900 water bodies having CCA of 1.2 lakh hectare).

FLOOD MANAGEMENT

Out of the country's total geographical area of 329 million hectare about 45 million hectare is flood prone. Till March 2007, an area of 18.22 mha has been provided with reasonable protection against floods by way of construction of embankments, drainage channels, town protection works and providing raised platforms.

The Union Government is providing Central assistance to the flood prone States to take up some of the critical works. The Central Government is also providing 100% Central assistance to West Bengal, Tripura and North-Eastern States for taking up certain priority works along the border.

The Government of India has launched a "Flood Management Programme" as a State sector scheme, to provide Central assistance to the States during 11th plan for taking up flood control, river management, drainage development, flood proofing and anti-sea erosion works. Under the Programme, a total of 353 Flood Management Works of critical nature with a total cost of ₹ 6796.9 crore (with central assistance of ₹ 5351.13 crore) are included from 22 States and a total amount of central assistance of ₹ 1606.86 crore has been released to States (including ₹ 85.15 crore for spilled over works of 10th plan) as on 18 August 2010. A total of 142 schemes have been completed by the State Governments as on 31 July 2010.

A network of Flood Forecasting and Warning System has been established by the Central Water Commission in major river basins, and flood forecasts are being issued through 175 stations, out of which 147 are river level forecasting stations and 28 are inflow forecasting stations spread over nine major river basins. During the flood season 2009-10, 4,010 flood forecasts (with 98% accuracy) were issued to the State Government/local administration in order to take timely action to save live-stocks and public properties. Advance forecasts about (i) water levels likely to be attained in rivers as a result of floods and (ii) volume of inflow into reservoirs are formulated and disseminated to various administrative authorities of Central Government, State Government and District Administration, media and other users on the basis of time data.

RIVER WATER DISPUTES

As per the Inter-State River Water Disputes Act, 1956 (ISRWD Act, 1956) when the water dispute arises among two or more State Governments, the Central Government receives a request under Section 3 of the Act from any of the basin States with regard to existence of water dispute. The details of such inter-State water disputes under ISRWD Act, 1956 are indicated below:-

Sl.No.	River(s)	States	Date of Constitution of Tribunal	Date of Award
1.	Krishna	Maharashtra, Andhra Pradesh, Karnataka	April 1969	May 1976
2.	Godavari	Maharashtra, Andhra Pradesh, Karnataka, Madhya Pradesh and Orissa	April 1969	July 1980
3.	Narmada	Rajasthan, Madhya Pradesh, Gujarat, Maharashtra	October 1969	December 1979
4.	Cauvery	Kerala, Karnataka, Tamil Nadu and Union of Puducherry	June 1990	Report u/s 5(2) received. 5.2.2007
5.	Krishna (Second)	Maharashtra, Andhra Pradesh and Karnataka	April 2004*	Report u/s 5(2) pending
6.	Vansadhara	Andhra Pradesh & Orissa	24 Feb., 2010	—
7.	Madei/ Mandovi/ Mahadayi/	Goa, Karnataka and Maharashtra	—	—

* As per Hon'ble Supreme Court orders dated 17 December 2008 the effective date of the constitution of tribunal is 1February 2006.

In accordance with the said Act, the Central Government is required to refer a dispute to a Tribunal after it is satisfied that the dispute cannot be settled by negotiations. Accordingly, the water disputes related to Cauvery, Krishna and Vansadhara were referred to the Tribunals for adjudication in 1990, 2004 and 2010 respectively.

The Cauvery Water Disputes Tribunal (CWDT) passed an interim order on 25 June 1991 and further clarificatory orders on the interim order in April 1992 and December 1995. Further, CWDT submitted its report and decision under Section 5(2) of the ISRWD Act, 1956 on 5 February 2007. The Central Government and the State Governments have sought explanation and guidance from the Tribunal under Section 5(3) of the Act which is under consideration of the Tribunal. Further, party States have also filed SLPs in the Hon'ble Supreme Court against the decision dated 5 February 2007 of the Tribunal and the matter is subjudice now.

The Krishna Water Disputes Tribunal (KWDT) passed orders on 9 June 2006 on the Interim Relief Application filed by the party States of Maharashtra, Karnataka and Andhra Pradesh. In its hearing held in September and October 2006, the Tribunal has framed 29 issues for adjudication of the dispute before it. Further hearings of the Tribunal are continuing. Party states have so far filed 108 Intellocutory Applications

(IAs). 106 IAs, filed so far, have been disposed of by passing necessary orders. Oral evidence of the Witnesses party States have been concluded.

In respect of Mahadayi/Mandovi and Vansadhara water disputes, the requests were received from States of Goa and Orissa in July 2002 and February 2006. A view has emerged in the Ministry that the Mahadayi water dispute cannot be settled through negotiations. As such, setting up of the tribunal for this purpose was approved by the Cabinet on 10 February 2009 and further action in this regard is being taken.

As regards the Vansadhara river water dispute, the state Government of Orissa filed a Writ Petition in the Hon'ble Supreme Court and in its hearing dated 6 February, 2009 the Hon'ble Court directed the Central Govt. to constitute a tribunal and refer the dispute to it. The Cabinet has approved the proposal for constitution of the tribunal in its meeting held on 25 June 2009. The Hon'ble Supreme Court nominated Justice Shri B.N. Agrawal, (Retd.) Supreme Court Judge as Chairman and Justice (Retd.) Shri Nirmal Singh, J&K High Court and Justice (Retd.) Shri B.N. Chaturvedi, Delhi High Court as members of the Vansadhara Water Disputes Tribunal. The MoWR has constituted Vansadhara Water Dispute Tribunal vide its Notification dated 24 February 2010.

GROUND WATER DEVELOPMENT IN THE COUNTRY

As per the latest assessment of replenishable ground water resources carried out jointly by the Central Ground Water Board and the States Ground water organizations, the total annual replenishable ground water resources of the country have been estimated as 433 Billion Cubic Metres (bcm). The existing ground water draft as in March 2004 for all uses is estimated as 231 bcm per year. The stage of ground water development is 58%. The development of ground water in different areas of the country has not been uniform. Highly intensive development of ground water in certain areas in the country has resulted in over-exploitation leading to decline in ground water levels and sea water intrusion in coastal areas.

The ground water assessment units (blocks/talukas/ mandals) are categorized as 'Over-exploited', 'Critical' and 'Semi-critical' based on the state of ground water development and the long term water level declining trend during the decade (1995-2004). Out of 5723 assessment units in the country, 839 units in various States have been categorized as 'Over-exploited', i.e. the annual ground water extraction exceeds the net annual ground water availability, and significant decline in long term ground water level trend has been observed either in pre-monsoon or post-monsoon or both. In addition, 226 units are 'Critical', i.e. the stage of ground water development is above 90% and within 100% of net annual ground water availability, and significant decline is observed in the long term water level trend in both pre-monsoon and post-monsoon periods. There are 550 semi-critical units, where the stage of ground water development is between 70% and 100%, and significant decline in long term water level trend has been recorded in either Pre-monsoon or Post-monsoon. The List of these areas has been circulated by the Central Ground Water Authority to State Pollution Control Boards and Ministry of Environment & Forests which refer the proposals for new industries/projects falling in these areas to CGWA for obtaining clearance for ground water withdrawal.

In order to disseminate the ground water related data including point observations on water level and quality, a Web enabled Ground Water Information System (WEGWIS) has been developed by CGWB in collaboration with National

Informatics Centre, New Delhi. The WEGWIS was dedicated to the Nation on 22 March 2010 on the occasion of World Water Day by the Minister of Water Resources. It is an internet based platform for accessing ground water related maps, data and related information.

CGWA has notified 43 areas in the country for regulation of ground water development and management. As a part of streamlining the regulatory function of Central Ground Water Authority, District Magistrates have been appointed as authorized officers for grant of permission for extraction of ground water for drinking/ domestic uses in areas notified by CGWA for ground water regulation. They have been advised to process the requests for grant of permission for extraction of ground water for drinking/ domestic purposes in notified areas as per guidelines issued by CGWA.

ADVISORY COUNCIL ON ARTIFICIAL RECHARGE OF GROUND WATER

In the year 2006, the Government of India constituted the Advisory Council on Artificial Recharge to Ground Water under the Chairmanship of the Minister (WR) with the main objective of popularizing the concept of artificial recharge among stakeholders as well as water managers. The Council comprises members from the concerned Central Ministries/Departments, representatives of State Governments, Public Undertakings, Financial Institutions, Industries, and renowned subject experts/ farmers/ NGOs. So far, the Council has held three meeting in July 2006, September 2007 and April 2010. As per the recommendations of the Council, the following actions have been taken/initiated:-

- National Ground Water Congress was organized in September 2007 and March 2010.
- Declaration of year 2007 as the 'Water Year'.
- Implementation of Farmers Participatory Action Research Programme (FPARP) in 25 States/UTs of the country.
- Institution of Ground Water Augmentation Awards & National Water Award to encourage (NGOs)/Gram Panchayats/Urban Local Bodies/Institutions/Corporate Sector and Individuals.
- Report on "More crop and income per drop of water" was prepared.
- Report on Policy on use of water for industries prepared.
- Ground water monitoring with Participatory approach involving Gram Panchayats/beneficiaries initiated.

FARMERS PARTICIPATORY ACTION RESEARCH PROGRAMME (FPARP)

The Sub Committee on "More Crop and Income per Drop of Water" under the chairmanship of Dr. M.S. Swaminathan, constituted by the Ministry of Water Resources had, *inter-alia*, recommended for implementation of 5000 Farmers Participatory Action Research Programmes (FPARP) throughout the country with the help of appropriate Agricultural Universities, ICAR Research Institutes, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and Water and Land Management Institutes (WALMIS) to demonstrate that it is now possible to increase yield and income per drop of water through generating synergy among water, variety, agronomic practices.

To implement the programme, MoWR constituted a Project implementation

Team (PIT) to examine the proposals and to formulate the guidelines for operationalizing the programme. The 63 proposals for conducting 5000 demonstrations in participatory mode with the farm family having a sense of ownership of the programme were approved. The programme was started in Rabi-2007-08 and is continuing in 2010-11. As per the guidelines, the programme is being monitored by the Regional Offices of CGWB and CWC. The total cost of the programme is around Rs. 24.46 crore. The details of technologies implemented under FPARP by the number of institutes are as follows:-

- Micro Irrigation (Drip and Sprinkler) - 20 institutes
- Rain water harvesting structures (water storage tanks) - 2 institutes
- Soil moisture conservation (Mulching, dead furrow, opening of furrow, tied ridging etc.) - 11 institutes.
- System of Rice Intensification (SRI) - 8 institutes
- Broadbed & Furrow irrigation - 6 institutes
- Deficit irrigation - 2 institutes
- Irrigation management/improved irrigation method - 7 institutes
- Best management including water management - 3 institutes
- Refinement of existing ITK of recycling Tank silt to modern technical knowledge - 1 Institute
- Micro nutrient management - 9 institutes
- Low Cost Polyhouse/net house - 3 institutes
- Land levelling/configuration - 5 institutes
- Precision farming irrigated crops / Dry crops - 1 institute
- Zero tillage /zero till drill - 3 institutes
- Deep tillage /Conservation tillage - 2 institutes
- Improved varieties - 7 institutes
- Dry farming technology in soil and water conservation - 1 institute
- Pit method / paired row planting of sugarcane - 2 institutes
- Sub-surface method of sugarcane cultivation - 1 institute
- Sowing of paddy seeds with drum seeder - 1 institute
- Multiple use of water - 1 institute

The number of demonstrations completed was 980 during Rabi season 2007-08, 1970 during Kharif 2008, 1301 during Rabi 2008-09, 519 during Kharif 2009 and 398 demonstrations have been completed / are under completion during Rabi 2009-10. Thus, 4988 demos are taken up since beginning till Rabi 2009-10. The expenditure incurred is Rs. 15.85 crore upto May 2010.

GROUND WATER AUGMENTATION AWARDS (BHOOMIJAL SAMVARDHAN PURASKAR) AND NATIONAL WATER AWARD

- Ground Water Augmentation Awards & National Water Award were instituted in the year 2007 in the Ministry of Water Resources.
- The awards aim to encourage the Non-Governmental Organizations (NGOs)/ Gram Panchayats/Urban Local Bodies/Institutions/Corporate Sector and

Individuals for adopting innovative practices of ground water augmentation by rainwater harvesting and artificial recharge, promoting water use efficiency, recycling & re-use of water and creating awareness through people's participation.

- There are 21 Ground Water Augmentation Awards (Bhoomijal Samvardhan Puraskars) for all categories taken together consisting of cash award ₹ 1 lakh and a plaque with citation.
- There is one National Water Award amongst 21 Award winners for best innovative practices of water conservation etc. consisting of a cash award of ₹ 10 lakh and a plaque with citation.
- National Water Award 2008 consisting of a cash award of ₹ 10 lakh and a plaque with citation was presented to Vruksh Prem Sewa Trust, Upleta, Rajkot, Gujarat. 21 Ground Water Augmentation Awards were given away to various NGOs, Panchayats, Urban Local Bodies, Institutions, and Corporate sector for their exemplary work, consisting of cash award ₹ 1 lakh and a plaque with citation.
- The detailed guidelines of the awards are available on the website of the Ministry of Water Resources at <http://mowr.gov.in/> under Guidelines–National Water Award.

ARTIFICIAL RECHARGE TO GROUND WATER THROUGH DUG WELLS

- The Government has sanctioned a State Sector Scheme of 'Artificial recharge of ground water through dug wells' with an outlay of ₹ 1798.71 crore for implementation in 7 (seven) states namely - Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu which are primarily underlain by hard rock formations and having majority of over exploited, critical and semi-critical assessment units. The scheme covers 1180 Over-exploited, Critical and Semi-critical assessment units in 149 districts affected by declining ground water levels and water quality problems.
- The scheme envisages installation of 4.45 million ground water recharge structures in the existing irrigation wells of the farmers to facilitate large scale ground water recharge in the area, of which 2.72 million are owned by the small and marginal farmers and 1.73 million owned by other farmers. Average cost of recharge per well is ₹ 4000, varying from ₹ 3600 in Maharashtra to ₹ 5700 in Andhra Pradesh. In order to encourage the farmers in dugwell recharge scheme, provision has been made for giving subsidy to the beneficiary farmers to the extent of 100% for marginal and small category farmers and 50% for farmers of other category.
- The recharge processes through implementation of scheme is expected, to *inter-alia*, lead to improvement in water quality, sustainability of drinking water supplies and socio-economic conditions of the population of the affected areas. The outcome of the scheme would be evaluated through concurrent impact assessment studies by an independent agency.
- A nodal department was identified in each participating state for identification of beneficiaries, preparation of list of beneficiaries with information about their agricultural land, dug well and bank accounts and for capacity building and creating awareness among beneficiaries for construction of dug well recharge

facility. The District Level implementation & Monitoring Committees (DLMIC) are responsible for implementation of dugwell recharge scheme in each district.

- An amount of ₹ 1499.27 crore has been released by the Ministry of Finance (MoF) to NABARD (programme partner) for releasing subsidy to beneficiary farmers and funds to state for awareness activities. The Ministry of Water Resources (MoWR) is the Nodal Ministry for the purpose of monitoring the progress of the scheme at national level and to take measures for experience sharing among all stakeholders, knowledge transfer and awareness.
- As on 30 March 2010, funds amounting to ₹ 285 crore including ₹ 267.75 crore as subsidy to beneficiaries, ₹ 17 crore for IEC/Capacity Building activities and Rs. 0.242 crore to DAVP towards publication of advertisement have been released.
- The State of Andhra Pradesh had not submitted any proposal for grant of subsidy to beneficiaries identified in the State under this scheme. As such, funds to this State could not be released.
- The details of funds released to States under this scheme is given below:

State-wise details of funds released under Dug well recharge scheme

Sl. No.	State	Target Beneficiaries	No. of Beneficiaries to whom subsidy released	IEC (₹ in crore)	Subsidy+ IEC (₹ in crore)
1	Andhra Pradesh	737439	0	0	0
2	Gujarat	558536	159209	3.25	56.03
3	Karnataka	154493	82554	2.0	29.58
4	Madhya Pradesh	360088	93857	2.0	42.15
5	Maharashtra	328322	44701	2.0	16.05
6	Rajasthan	1064355	85479	2.0	29.90
7	Tamil Nadu	1250730	293116	5.75	111.04
	Total	4453963	758916	17.0	284.75

* Rs. 0.242 crore released to DAVP towards publication of advertisement

NATIONAL WATER RESOURCES COUNCIL

A National Water Resources Council was set up by the Government of India in March 1983. The Prime Minister is the Chairman, Union Minister of Water Resources is the Vice-Chairman, and Minister of State for Water Resources, concerned Union Ministers/Ministers of State, Chief Ministers of all States & Lieutenant Governors/Administrators of the Union Territories are the Members. Secretary, MoWR is the Secretary of the Council.

NATIONAL WATER BOARD

The Government of India constituted a National Water Board in September 1990 under the Chairmanship of Secretary, Ministry of Water Resources to review the progress achieved in implementation of the National Water Policy and to report the

progress to the National Water Resources Council from time to time. The Secretaries of Union Ministries of Agriculture, Rural Development, Urban Development, Surface Transport, Environment & Forests, Planning and Science & Technology, Chairman, Central Water Commission, Chief Secretaries of all States/Union Territories are its Members and Member (Water Planning & Projects), Central Water Commission is the Member Secretary. The 13th meeting of National Water Board was held on 18 September 2009.

INTERNATIONAL COOPERATION

INDIA-NEPAL COOPERATION

The Union Government is engaged in continuous dialogue with the Government of Nepal at various levels for bilateral cooperation in the field of water resources development.

A Treaty on Integrated Development of Mahakali River was signed between the Government of India and Government of Nepal in February 1996, which came into force in June 1997. Pancheshwar Multipurpose Project on river Mahakali (known as river Sarda in India), is the centerpiece of Mahakali Treaty. India-Nepal Joint Group of Experts (JGE) has been overseeing the physical and financial progress with respect to finalization of Joint Detailed Project Report of Pancheshwar Multipurpose Project. All related field investigations have been completed and Detailed Project Report is to be finalized after resolving the pending issues, which are under discussion with Nepal. The project will have power and irrigation benefits besides incidental benefits of flood moderation.

INDIA-BHUTAN COOPERATION

A scheme titled "Comprehensive Scheme for Establishment of Hydro-meteorological and Flood Forecasting Network on rivers Common to India and Bhutan" is in operation. The network consists of 35 hydro-meteorological/meteorological stations located in Bhutan and being maintained by the Royal Government of Bhutan with funding from India. The data received from these stations are utilized in India by the Central Water Commission for formulating flood forecasts. A Joint Expert Team (JET) consisting of officials from the Government of India and Royal Government of Bhutan continuously reviews the progress and other requirements of the scheme.

The problem of floods created by the rivers originating from Bhutan and coming to India was taken up with the Royal Government of Bhutan. A Joint Group of Expert (JGE) on Flood Management has been constituted between India and Bhutan to discuss and assess the probable causes and effects of the recurring floods and erosion in the southern foothills of Bhutan and adjoining plains in India and recommend appropriate and mutually acceptable remedial measures to both the Governments.

INDIA-BANGLADESH COOPERATION

An Indo-Bangladesh Joint Rivers Commission (JRC) headed by Water Resources Ministers of both the countries is functioning since 1972 with a view to maintaining liaison in order to ensure the most effective joint effort in maximizing the benefits from common river systems. A Treaty was signed by the Prime Ministers of India and Bangladesh on 12 December 1996 for the sharing of Ganga/Ganges waters. The Treaty shall remain in force for a period of thirty years to be renewable by mutual consent. A Joint Committee has been set up for implementing joint inspections and

monitoring of the sharing arrangements at Farakka in India and at Hardinge Bridge in Bangladesh for the dry season (January to May) every year.

India is providing the flood data of Farakka for Ganga (from 15 June to 15 October) and the flood data of Pandu, Goal Para and Dhubri for Brahmaputra and of Silchar for Barak during monsoon period (from 15 May to 15 October) to Bangladesh for use of their flood forecasting and warning arrangements, besides the data of rivers Teesta, Manu, Gumti, Jaladhaka and Torsa etc. The transmission of flood forecasting information from India during the monsoon, which is being supplied free of cost, has enabled the civil and military authorities in Bangladesh to shift the population affected by flood to safer places.

INDIA-CHINA COOPERATION

In the year 2002, the Government of India had entered into an MoU with China for provision of hydrological information on Yaluzangbu/Brahmaputra river in flood season by China to India. In accordance with the provisions contained in the MoU, the Chinese side is providing hydrological information (Water level, discharge and rainfall) in respect of three stations, namely Nugesha, Yangcun and Nuxia located on river Yaluzangbu/ Brahmaputra from 1 June to 15 October every year, which is utilized in the formulation of flood forecasts by the Central Water Commission. This MoU expired in 2007. A new Memorandum of Understanding (MoU) on hydrological information of the Brahmaputra/Yaluzangbu River in flood season by China to India with a validity of five years has been signed with China on 05 June 2008 during the visit of the External Affairs Minister of India to Beijing from 4-7 June 2008.

Another Memorandum of Understanding has been signed during the visit of the Chinese Premier to India in April 2005 for supply of hydrological information in respect of Sutlej (Langqen Zangbu), in flood season. Chinese side is providing hydrological information in respect of their Tsada station on river Sutlej (Langqen Zangbu) from the monsoon of 2007.

INDUS WATER TREATY, 1960

Under the Indus Water Treaty, 1960, India and Pakistan have created two permanent posts of Commissioners for Indus Waters, one each in India and Pakistan. Each Commissioner is representative of his Government for all matters arising out of the Treaty and is to serve as the regular channel of communication on all matters relating to implementation of the Treaty. The two Commissioners together form the Permanent Indus Commission PIC. The PIC holds periodical meetings and also undertakes tours of inspection to projects/works in India and Pakistan.

In fulfilment of the requirements of Indus Water Treaty, the daily data of 280 hydrological sites of six basins, The Indus, The Jhelum, The Chenab, The Ravi, The Beas and the Sutlej of Indus system was sent to Pakistan every month. As a gesture of goodwill, flood data of the rivers Chenab, Ravi, Sutlej and Tawi is being communicated to Pakistan during the flood season since year 2009 for undertaking advance flood warning measures.

Keeping in view the national importance, in the year, 2008 the proposed Bursar Hydroelectric Project, Gyspa Hydroelectric Project, Ujh Multipurpose Project and Second Ravi-Beas Link Project besides Shahpurkandi Dam Project were included in the list of National Projects to enable more effective utilization of the water resources

potential available under the Treaty. Pursuant to this, efforts to identify suitable sites/prepare DPRs are going on.

CENTRAL ORGANISATIONS

Central Water Commission

The Central Water Commission (CWA) is a premier technical organisation in the country in the field of water resources since 1945. The Commission is entrusted with the responsibilities of initiating, co-ordinating and furthering schemes for control, conservation and utilisation of water resources throughout the country in consultation with the State governments concerned for purposes of flood control, irrigation, drinking water supply and hydro power development. CWC also undertakes investigation, construction and execution of any such schemes as required.

The CWC is headed by a Chairman, who also holds the status of Ex-officio Secretary to the Government of India. It has three technical wings, namely, (i) Design and Research, (ii) Water Planning and Projects and (iii) River Management. Each of the wings is headed by an engineering officer designated as Member, with the Ex-officio status of an Additional Secretary to the Government of India. The wings consist of organisations headed by Chief Engineers, with Directorates under them, each headed by a Director/Superintending Engineer. There are 32 organisations and 147 Directorates/Circles under the CWC.

There are 13 regional organisations of CWC which are functioning from Bengaluru, Bhopal, Bhubaneswar, Chandigarh, Coimbatore, Delhi, Hyderabad, Lucknow, Nagpur, Patna, Shillong, Siliguri and Gandhi Nagar, each headed by a Chief Engineer. These organisations closely interact with the States and are entrusted with the monitoring of medium and major projects, command area development, rehabilitation and renovation of water bodies, minor irrigation and other water management activities, appraisal of medium projects, flood forecasting and hydrological observations.

BROAD FUNCTIONS OF CWC

- To carryout Techno-economic appraisal of irrigation, flood control and multipurpose projects proposed by the State Governments.
- To collect, compile, publish and analyse the hydrological data relating to major rivers in the country, consisting of rainfall, runoff and temperature, silting of reservoirs, behaviour of hydraulic structures, environmental aspects, etc. and to act as the central bureau of information in respect of these matters.
- To collect, maintain and publish statistical data relating to water resources and its utilization including quality of water throughout India and to act as the central bureau of information relating to water resources.
- To provide flood forecasting services to all major flood prone inter-state river basins of India through a network of 175 flood forecasting stations.
- To advise the Government of India and the concerned State Governments on the basin-wise development of water resources.
- To undertake necessary surveys and investigations as and when so required, to prepare designs and schemes for the development of river valleys in respect of power generation, irrigation by gravity flow or lift, flood management, environmental management, resettlement and rehabilitation, soil conservation,

anti-water logging measures, reclamation of alkaline and saline soils, drainage and drinking water supply.

- To advise the Government of India in respect of Water Resources Development, regarding rights and disputes between different States which affect any scheme for the conservation and utilization and any matter that may be referred to the Commission in connection with river valley development.
- Monitoring of selected major and medium irrigation projects, to ensure the achievement of physical and financial targets. Monitoring of projects under Accelerated Irrigation Benefit Programme (AIBP), and Command Area Development (CAD) programme has also been included in its field of activities.
- To initiate studies on socio-agro-economic and ecological aspects of irrigation projects for the sustained development of irrigation.
- To conduct studies on darn safety aspects for the existing and future dams and standardize the instruments for dam safety measures.
- To initiate morphological studies to visualise river behaviour, bank erosion/ coastal erosion problems and advise the Central and State Governments on all such matters.
- To promote and create mass awareness regarding the progress and achievements made by the country in the water resources development, use and conservation.

Central Soil and Material Research Station

The Central Soil and Materials Research Station (CSMRS), New Delhi is a premier organization in the field of Soil-Mechanics, Foundation Engineering, Rock Mechanics and Concrete Technology and allied areas specifically in respect of water resources projects. The mandate of CSMRS is basic and applied research followed by consultancy and dissemination. Further, this research station provides technical assistance to the Departments of Central and State Governments, Public Sector Undertakings and other agencies in India and abroad, covering areas such as soil mechanics & foundation engineering, soil dynamics, rockfill technology, soil chemistry, geosynthetics, rock mechanics, geophysics, concrete technology, concrete chemistry, numerical modelling, instrumentation, electronics and information technology. It has other infrastructural facilities such as lecture hall, auditorium and trainee hostel. Well qualified and experienced research personnel are working in different areas of specialization. CSMRS has taken up investigations in respect of about 2000 problem areas related to various projects in India and abroad. It has conducted 47 nos. of training programmes so far in the fields of soil mechanics & foundation engineering, rock mechanics, construction materials, concrete technology, water quality, numerical modelling, etc.

SUBORDINATE ORGANIZATIONS

Central Water and Power Research Station

The Central Water and Power Research Station (CWPRS), Khadakwasla, Pune, is the centre of excellence in hydraulic research at the national level. From its inception in 1916 as an agency dealing with the twin problems of irrigation and drainage, CWPRS has grown today to an institution of international standing in hydraulic research.

The mandate of the institution encompasses undertaking specific research studies supported by necessary basic research. Comprehensive R&D support is offered

to a variety of projects dealing with water resources, power and water-borne transport. Consultancy and advisory services are rendered to a variety of clients of the institution within the sphere of its activities. Disseminating expertise and research findings amongst hydraulic fraternity and promoting hydraulic research activities at other institutions by imparting training to their research manpower are also undertaken. As the regional laboratory of the Economic and Social Commission for Asia and the Pacific (ESCAP) since 1971, CWPRS has contributed in many projects in the neighborhood as well as countries in the Middle East and Africa.

The major disciplines/laboratories of CWPRS are: River Engineering, Reservoir and Appurtenant Structures, Coastal and Offshore Engineering, Ship Hydrodynamics, Hydraulic Machinery, Earth Sciences, Mathematical Modelling, Foundation & Structures and Instrumentation & Control Engineering. About 50 Divisions - well equipped with state-of-the-art equipment, software and other high quality infrastructure - are engaged in hydraulic research at the institution within the ambit of the disciplines/laboratories mentioned above. The institution, with an interdisciplinary approach in all its activities, represents unique services available to the country and the ESCAP region.

(b) Central Ground Water Board

Central Ground Water Board (CGWB), a subordinate office of the Ministry of Water Resources, Government of India, is the National Apex agency entrusted with the responsibilities of providing scientific inputs for management, exploration, monitoring, assessment, augmentation and regulation of ground water resources of the country. The Board was established in 1970 by renaming the Exploratory Tubewells Organization under the Ministry of Agriculture, Government of India. It was merged with the Ground Water Wing of the Geological Survey of India during 1972 and has its headquarters at BHUJAL BHAWAN NH 4, Faridabad, Haryana.

CGWB is a multi-disciplinary scientific organization consisting of Hydrogeologists, Geophysicists, Chemists, Hydrologists, Hydrometeorologists and Engineers. It is headed by the Chairman and has four main wings, namely (i) Sustainable Management & Liaison (SML), (ii) Survey, Assessment & Monitoring (SAM), (iii) Exploratory Drilling & Materials Management (ED&MM) and (iv) Training and Technology Transfer (T&TT). Each wing is headed by a Member. The Administrative and Financial matters of the Board are being dealt with by the Director (Administration) and Finance & Accounts Officer (FAO) respectively. The Board has 18 Regional Offices, each headed by a Regional Director, supported by 17 Engineering Divisions and 11 State Unit Offices for undertaking various field activities.

The Rajiv Gandhi National Ground Water Training & Research Institute (RGNGT&RI), which coordinates the capacity building activities of the Board functions from the CGWB headquarters, Faridabad at present. Various activities related to regulation of ground water development in the country are being looked after by the Central Ground Water Authority (CGWA), constituted under the Environmental (Protection) Act, 1986.

Some of the major activities being taken up by CGWB include macro-level ground water management studies, exploratory drilling programme, monitoring of ground water levels and water quality through a network of ground water observation wells, comprising both large diameter open wells and purpose-built bore/tubewells (piezometers), implementation of demonstrative schemes for artificial recharge and

rainwater harvesting for recharge augmentation. Periodic assessment of replenishable ground water resources of the country is carried out by the Board jointly with the concerned State Government agencies. Geophysical studies, remote sensing and GIS studies and ground water modelling studies are taken up to supplement these activities. The Board also takes up special studies on various aspects of ground water sector such as ground water depletion, sea water ingress, ground water contamination conjunctive use of surface and ground water, water balance etc. It also organizes various capacity building activities for its personnel as well as Central/State Government organizations engaged in various activities in ground water sector. The data generated from various studies taken up by CGWB provide a scientific base for water resources planning by the stakeholders. Besides advising the States and other user agencies on planning and management of ground water resources, CGWB also provides technical know-how for scientific ground water exploration, development and management to various stakeholders.

The Board regularly publishes scientific reports based on the data generated through various investigations for dissemination to the stakeholders. These include State and District hydrogeological reports, ground water year books and Atlases, ground water user maps and guides/manuals/pamphlets on various aspects of ground water management. CGWB website (www.cgwb.gov.in) hosts important information in ground water domain. The Board has been regularly publishing its scientific activities since 1985 through a quarterly journal, *Bhujal News*.

CENTRAL GROUND WATER AUTHORITY (CGWA)

Central Ground Water Authority (CGWA) has been constituted under Section 3(3) of Environment (Protection) Act of 1986 vide Ministry of Environment & Forests' (MoEF) Notification dated 14 January 1997 and reconstituted under MoEF Notification dated 6 November 2000 and 15 May 2010 for the purposes of regulation and control of ground water development and management in the country. The CGWA is headed by the Chairman/CGWB and assisted by 14 other members from various Ministries/ Departments/Organisations and 4 members of CGWB.

The Authority is engaged in various activities related to regulation of ground water development to ensure its long-term sustainability. The CGWA is regulating withdrawal of ground water by industries/projects in over-exploited, semi-critical and critical blocks/talukas/mandals/districts through clearance of such proposals. The CGWA has been issuing guidelines/instructions to the various Central Ministries/ Departments/ Organisations, States/UTs etc. to regulate the extraction of ground water. The Authority has initiated action to promote roof top rainwater harvesting in the country and taken several regulatory measures which include the following:-

- Conduct of mass awareness and water management training programmes throughout the country as proactive measures to create awareness and capacity building in ground water management.
- 'Notification' of 43 such 'Over-exploited' assessment units/blocks by CGWA in parts of NCT Delhi, Haryana, Punjab, Andhra Pradesh, Rajasthan, M.P., Gujarat, West Bengal, Uttar Pradesh and Diu for regulation of ground water development and management, where annual water withdrawal exceeds the annually available ground water resources and show continuous decline in ground water levels. To streamline the regulatory function, Deputy Commissioners have been appointed as authorized officers for grant of permission for extraction of ground

water for drinking/ domestic uses in the areas notified by CGWA for ground water regulation as per guidelines issued by CGWA.

- Issue of directions to 12 States and 2 Union Territories having over-exploited blocks to take necessary measures to promote/adopt artificial recharge to ground water/ rain water harvesting.
- Issue of directions to all the Residential Group Housing Societies/Institutions/ Schools/Hotels/ Industrial Establishments falling in the over-exploited and critical areas in the country to adopt Roof Top Rain Water harvesting systems in their premises.
- Issue of direction to CRR, NHAI, CPWD, SPWD, Railway Board, Sports Authority, Airports Authority of India, Civil Aviation, Youth Affairs & Sports to implement the scheme of ground water recharge along all National/State Highways and other roads, rail tracks and other establishments of Railways, all stadiums and airports.

Farakka Barrage Project

The Farakka Barrage Project was constructed for preservation and maintenance of Kolkata Port by improving the regime and navigability of the Bhagirathi-Hoogly river system. The river Bhagirathi, the feeder canal and navigation lock at Farakka form part of the Haldia-Allahabad Inland Waterway. The principal components of the project are: (a) 2,245 metre long barrage across the Ganga with a rail-cum-road bridge, river training works, a head regulator on the right side, (b) 213 metre long barrage across the river Bhagirathi at Jangipur, (c) Feeder canal of 1113 cubic metres per second (40,000 cubic feet per second) carrying capacity and 38.38 km long, taking off from the head regulator on the right of the Farakka Barrage, and (d) navigation works such as locks, lock channels, shelter basins, navigation lights and other infrastructure.

Farakka Barrage Project authority also undertakes emergent anti erosion works since 2005 along the bank of the river Ganga in some of the critical reaches between Rajmahal and Jalangi.

Sardar Sarovar Construction Advisory Committee

The Sardar Sarovar Construction Advisory Committee (SSCAC) located at Vadodara was constituted in 1980 as per the directive of the Narmada Water Disputes Tribunal (NWDT), for scrutiny of estimates, technical features, design and to monitor the progress of the construction activity to ensure efficient, economical and timely execution of Unit-I (Dam and Appurtenant works) and Unit-III (Hydro-Power Complex) of the Sardar Sarovar Project (SSP). The Secretary, Ministry of Water Resources, is the Chairman of the Committee. Representatives from the departments like Irrigation, Power, Revenue, Welfare etc. concerned with the construction of the project of the four party States along with their counterparts from the Government of India and the Narmada Control Authority are Members of the Committee.

Bansagar Control Board

The Bansagar Control Board was constituted by the Central Government in consultation with the Governments of Madhya Pradesh, Bihar and Uttar Pradesh with a view to ensuring efficient, economical and early execution of the Bansagar Dam on Sone river, including all connected works in Madhya Pradesh but excluding the canal systems. The headquarters of the Board is at Rewa (M.P.). The Union Minister

of Water Resources is the Chairman of the Board. The day-to-day activities of the Board are managed by an Executive Committee of the Board under the Chairmanship of Chairman, Central Water Commission. Funds for the project are borne by the beneficiary States of Madhya Pradesh, Uttar Pradesh and Bihar in the ratio of 2:1:1.

The revised cost of the Dam Project is Rs.1,525 crore (at 2009 price level). The total expenditure on the project up to October 2009 is Rs. 1479.826 crore. The project has started providing irrigation water to the beneficiary States of Madhya Pradesh, Uttar Pradesh and Bihar besides hydro power generation in Madhya Pradesh.

Ganga Flood Control Commission

Ganga Flood Control Commission (GFCC), with its headquarters at Patna, was established in 1972. It serves as the Secretariat and executive limb of Ganga Flood Control Board which is headed by Union Minister for Water Resources and its members are the Union Minister for Finance, Railways, Surface Transport and Agriculture or their representatives, Union Minister of State for Water Resources, the Chief Ministers of the basin States or their representatives and Member, Planning Commission. The Commission is headed by a Chairman who is assisted by two full-time Members.

Main functions of the Commission include preparation and updating of a comprehensive plan for flood management, techno-economic appraisal of flood management schemes, assessment of adequacy of waterways under road and rail bridges, monitoring and performance evaluation of flood management schemes, and participation in international and national committees set up by the Government of India on Ganga basin States pertaining to the subject of flood management.

Upper Yamuna River Board

A Memorandum of Understanding (MoU) was signed by the Chief Ministers of Himachal Pradesh, Haryana, Uttar Pradesh, Rajasthan and National Capital Territory of Delhi on 12 May 1994 regarding allocation of utilizable surface flow of Yamuna up to Okhla among the co-basin States. As per the provision in the MoU, the Upper Yamuna River Board (UYRB) with its headquarters in the National Capital Region was constituted. Upper Yamuna Review Committee (UYRC) was also constituted, for supervising the working of the UYRB to ensure implementation of the MoU regarding allocation of surface flow of Yamuna and to issue directions, as deemed necessary, for proper development. Uttarakhand has also been made Member of UYRB and UYRC subsequently.

Government of India has included aforesaid three storage projects as National Projects, for which central assistance to be provided would be 90% of the project cost of irrigation and drinking water components of the project, as grant. The projects would be eligible for the central grant after techno-economic clearance of the Detailed Project Report by the Advisory Committee of the Ministry of Water Resources on Irrigation, Flood Control & Multipurpose Projects and investment clearance by the Planning Commission.

PUBLIC SECTOR UNDERTAKINGS

Water and Power Consultancy Services Ltd (WAPCOS)

WAPCOS Limited, an ISO 9001-2000 Certified Company, is a "MINI RATNA" Public

Sector Enterprise under the aegis of the Union Ministry of Water Resources. Incorporated on 26 June 1969 under the Companies Act, 1956, WAPCOS has been providing consultancy services in all facets of water resources, power and infrastructure sectors in India and abroad.

The main fields of specialization of the company cover Irrigation and Drainage, Flood Control and Land Reclamation, River Management, Dams, Reservoir Engineering and Barrages, Integrated Agriculture Development, Watershed Management, Hydropower and Thermal Power Generation, Power Transmission and Distribution, Rural Electrification, Ground Water Exploration, Minor Irrigation, Water Supply and Sanitation (Rural and Urban), Environmental Engineering including Environmental Impact Assessment and Environmental Audit, Ports and Harbours and Inland Waterways, Rain Water Harvesting, Survey & Investigations, Human Resource Management, System Studies and Information Technology. WAPCOS has also been venturing into newer fields such as Software Development, City Development Plans, Financial Management System, Technical Education, Quality Control and Construction Supervision, Roads and Bridges. The Company has amended its Articles of Association to provide concept to commissioning services for developmental projects in India and abroad.

WAPCOS' spectrum of services covers a wide range of activities e.g. pre-feasibility studies, feasibility studies, simulation studies, diagnostic studies, socio-economic studies, master plans and regional development plans, field investigations, detailed engineering including designs, detailed specifications, tendering process, contract and construction management, commissioning and testing, operation and maintenance, quality assurance and management, software development and human resource development.

WAPCOS has on date an authorized capital of Rs.200 lakh (Paid up Capital i.e. initial investment of Government Rs.30 lakh and issue of Bonus Shares Rs.170 lakh).

In the year 2009-10, the company has achieved a turnover of Rs. 30214 lakh and secured new business worth ₹ 31584.56 lakh. The turnover has increased by 47% and new business by 25% over the year 2008-09. In the year 2009-10, WAPCOS attained Gross Margin of Rs. 4636.58 lakh. WAPCOS has proposed a dividend of 300% of its paid-up capital for the year 2009-10, which is the highest ever since inception of the Company.

WAPCOS is registered with various international funding agencies for participating in the funded projects like World Bank/International Bank for Reconstruction and Development, African Development Bank, Asian Development Bank, Food and Agriculture Organization, International Fund for Agricultural Development, United Nations Development Program, World Health Organization, West African Development Bank, Indian Technical and Economic Cooperation (ITEC) Programme, Overseas Economic Cooperation Fund, Japan Bank for International Cooperation (JBIC) etc.

Apart from India, WAPCOS has successfully completed on-going consultancy assignments abroad in 40 countries and is currently engaged in providing consultancy services in Afghanistan, Bangladesh, Bhutan, Cambodia, Laos, Myannar, Nepal, Nigeria, Rwanda and Talwan.

NATIONAL PROJECTS CONSTRUCTION CORPORATION LIMITED

National Projects Construction Corporation Limited (NPCC), a Govt. of India Enterprise under the aegis of Ministry of Water Resources, was established on

9 January 1957 with the objective to carry out infrastructure work and other related activities for development of the nation. NPCC is an ISO 9001-2000 certified public sector company and some of the important projects executed/under execution by NPCC are listed below:-

Water Sectors: ● Maneri Bhall Hydro Project in Uttarakhand ; ● Jobat Dam in Madhya Pradesh ; ● Khuga Dam in Manipur; ● Marginal Bund and Afflux Bund for Ganga Barrage at Kanpur in Uttar Pradesh; ● Protection work of Gagon river at Moradabad in Uttar Pradesh; ● Mija Link Chennel at Mirzapur in Uttar Pradesh; ● R.C.C. Barrage Work at Ujjain in Madhya Pradesh; and ● Construction of Madku Anicut, Khamhardih Anicut, Dagon Anicut and Podi Aricut in Chhattisgarh.

Irrigation and River Valley Project: ● Dotaihabhi Barrage in Manipur, Kalsi Barrage Project.

(Tripura), Thermal Projects: ● Off site civil works at Sipat STPP in Chattisgarh; ● Off Site civil works for Kahalgaon STPP in Bihar; ● Civil works of 2 x 250 MW Parichha Thermal Power Project; and ● Execution of first raising of existing Ash Dyke compartment 'B' PTPP, Parichha.

OTHER ORGANISATIONS

Narmada Control Authority

The Central Government framed the Narmada Water Scheme, which, among other things, constituted Narmada Control Authority (NCA) and a Review Committee in 1980 for implementation of the decisions and directions of the Narmada Water Disputes Tribunal.

The Narmada Control Authority, a high powered inter-action body, is headed by the Secretary, Ministry of Water Resources as the Chairman with Secretaries of the Union Ministries of Power, Environment & Forests, Social Justice & Empowerment, Tribal Affairs, Chief Secretaries of the four party States, one Executive Member in-charge of department of Irrigation/Power/State Electricity Boards appointed by the party States. The Review Committee of Narmada Control Authority (RCNCA) headed by the Union Minister of Water Resources comprises Union Minister for Environment & Forests and Chief Ministers of the party States as Members. The Secretary, Ministry of Water Resources, is the convener of the RCNCA. It may suo-moto, on the application of any party state or Secretary to the Government of India, Ministry of Environment & Forests, review any decision of the Authority.

As per the decision taken by the NCA in its meeting on 8 March 2006 for according permission to raise the height of the Sardar Sarovar Dam, the Elevation of Block No. 22 to 50 has been subsequently raised to Elevation Level (EL) 121.92 metre. The Government of Gujarat has completed the raising of Sardar Sarovar Dam Spillway blocks upto EL 121.92 m. The construction of main canal carrying water from Sardar Sarovar Dam up to Rajasthan border is completed up to 357 kms length out of its total length of 458 kms in Gujarat. Completion of works in 357 km to 458 km of Canal Phase-II(B) and two major structures falling within 263 km to 357 km of Canal Phase-II (c) are in progress as on 31 March 2010. Narmada water had reached Rajasthan on 18 March 2008 by completing one monolith of major canal siphon works and bypass arrangement at khari canal siphon.

Works on Narmada Main Canal in Rajasthan are also complete. Partial irrigation benefits are being realized by releasing Narmada water from the Sardar Sarovar Dam since it has been raised up to EL 121.92 m. Government of Gujarat has developed 5.41 lakh ha. of command area and Rajasthan has also developed 40,000 ha initially to utilize Narmada water which was reached through Narmada Main Canal with effect from March 2008. Drinking water supply has also started in 8215 villages and 135 urban centres including the whole of Saurashtra and fully covered of Kutch region. All the 6 units of River Bed Power House and 5 units of Canal Head Power House have been commissioned successfully and are in operational condition. The total hydro-power generated from the generating units already installed is 2898.207 million units during the year 2009-10. These energy benefits are shared by the party States as per the provisions of NWDAT Award.

BETWA RIVER BOARD

The Betwa River Board was constituted by the Ministry of Water Resources for efficient, economical and early execution of the Rajghat Dam Project, a joint venture of Madhya Pradesh (MP) and Uttar Pradesh (UP). The headquarters of the Board is at Jhansi (U.P.). The Union Minister for Water Resources is the Chairman of the Board. The activities of the Board are managed by the Executive Committee of the Board under the Chairmanship of Chairman, Central Water Commission. The funds for construction of the Rajghat Dam, Power House Projects and for meeting the expenses of the Office of the Board are borne by the States of Madhya Pradesh and Uttar Pradesh in equal proportion.

The Rajghat Dam and Rajghat Hydro Electric Projects are inter-State projects of Madhya Pradesh and Uttar Pradesh. The estimated cost of the Rajghat Dam is Rs.300.60 crore (at 2000 price level) and that of the Power House Rs.131.26 crore (at 1997 price level). The Rajghat Dam is almost complete. All the three units of Rajghat Hydro-Electric Project have been synchronized during 1999 and the power generation is continuing in all units since then.

TUNGABHADRA BOARD

The Tungabhadra Board was constituted for the completion, operation and maintenance of the Tungabhadra Project. The Board is responsible for the common portion of the Tungabhadra Project. The Krishna Water Disputes Tribunal has made specific provision in the Award for the use of Tungabhadra water by the States of Karnataka and Andhra Pradesh. The responsibility for carrying out this specific provision relating to the use of Tungabhadra waters has been entrusted to the Tungabhadra Board by the Tribunal. The Board is regulating the water for irrigation, hydropower generation and other uses on the right bank.

The Board consists of a Chairman appointed by the Government of India, one Member from Government of India and two Members from concerned States each representing Andhra Pradesh and Karnataka. An officer of the Central Government appointed as the Secretary of the Board is the Chief Executive of the Board. Funds for the functioning of the Board are provided by the two State Governments.

The working table for canal-wise distribution of water to the States is prepared every year by the Tungabhadra Board in consultation with the State Governments and is reviewed from time to time during the water year. The regulation of water is

carried out in accordance with the agreed working table. The power generated is shared between the States of Karnataka and Andhra Pradesh in the ratio of 20:80.

NATIONAL INSTITUTE OF HYDROLOGY

The National Institute of Hydrology (NIH), functioning since 1978, has its headquarters at Roorkee (Uttarakhand). To carry out field related research, the NIH has four regional centres located at Belgaum, Jammu, Kakinada and Sagar and two centres for flood management studies at Guwahati and Patna.

The objectives of the Institute are: (a) to undertake, aid, promote and coordinate systematic and scientific work in all aspects of hydrology, (b) to co-operate and collaborate with other national, foreign and international organizations in the field of Hydrology (c) to establish and maintain a research and reference library in pursuance of objectives of the Society and equip the same with books, reviews, magazines, and other relevant publications, and (d) to do all other such things as the society may consider necessary, incidental or conducive to the attainment of the above objects. To fulfil these objectives, the Institute has established world class laboratories in the area of nuclear applications of hydrology, water quality laboratory, remote sensing and GIS application laboratory and hydrological instrumentation laboratory.

The Institute is presently focusing studies and R&D on the following thrust areas relating to hydrology of extremes, impact of climate changes on water resources, ground water modelling and management, sustainable integrated water resources systems management, surface water modelling and regional hydrology of arid, semi-arid, coastal and deltaic zones and environmental hydrology. The Institute is involved in a number of nationally important water resources projects including World Bank funded Hydrology Project Phase-II. NIH is also actively involved in technology transfer and IEC activities.

The NIH is also hosting the Secretariat of INCOH, which is also the nodal agency in India for the International Hydrology Programme of UNESCO. The Institute is participating under institutional strengthening and Vertical Extension Component of the Hydrology Project. Besides, Phase II (HP-II) is acting as the nodal agency for the implementation of DSS (Planning) for Integrated Water Resources Development and Management.

BRAHMAPUTRA BOARD

The Brahmaputra Board was constituted in December 1981 for planning and integrated implementation of measures for the management of floods and bank erosion in the Brahmaputra valley. The major activities of the Board are preparation of Master Plans, preparation of detailed project report of multipurpose projects, drainage development schemes and anti-erosion schemes in the valley apart from execution of schemes/projects in the North-Eastern Region. The Board has completed 44 Master Plans which have been approved by the Government of India and have been sent to the States for implementation. The Board has also prepared five nos. of Detailed Project Report (DPR) for multipurpose projects and 20 nos. DPR for Drainage Development Schemes. The Board has taken up execution of anti-erosion measures for avulsion of Brahmaputra at Dholla Hatighuli and protection of Majuli Island in Assam. The Majuli Island is world's largest river Island located in the upper reaches of river Brahmaputra. The flood and erosion control measures have resulted in considerable reduction in erosion of Majuli Island. The Board is also executing

drainage development schemes, viz. Harang Drainage Development Scheme, Amjur Drainage Development Scheme, Barbhag Drainage Development Scheme, Jengrai, Jakalchuk, East of Barpeta and Singla.

NATIONAL WATER DEVELOPMENT AGENCY

The Ministry of Water Resources had formulated a National Perspective Plan (NPP) in August 1980 for Water Resources Development by transferring water from water surplus basins to water deficit basins/regions by interlinking of rivers. The NPP has two main components, i.e. the Himalayan Rivers Development Component and the Peninsular Rivers Development Component. The NPP envisages additional irrigation benefits of 35 million hectare, i.e. 25 million hectare from surplus water and 10 million hectare by increased use of ground water which will be over and above the ultimate irrigation potential of about 140 million hectare from major, medium and minor irrigation projects and 34 million KW of hydropower, apart from the benefits of flood control, navigation, water supply, fisheries, salinity, pollution control, etc. The Himalayan Component of inter-basin water transfer proposals envisages benefits directly to the States of Uttar Pradesh, Haryana, Rajasthan, Gujarat, Assam, West Bengal, Bihar, Jharkhand and Orissa and enrich the Peninsular Component from the surplus waters of Brahmaputra. The Peninsular Component envisages benefit to the States of Andhra Pradesh, Orissa, Karnataka, Tamil Nadu, Puducherry, Madhya Pradesh, Rajasthan, Maharashtra and Gujarat.

The National Water Development Agency (NWDA) was set up as a Society in 1982 to carry out surveys and investigations and to prepare feasibility reports of the links under the NPP. The NWDA carried out water balance studies of 137 basins/sub-basins and at 71 identified diversion points and topo-sheet studies of 74 identified storages and 37 link alignments under NPP. NWDA has, after carrying out aforesaid detailed studies, identified 30 links, comprising 16 links under Peninsular Components and 14 links under Himalayan Components for preparation of Feasibility Reports for effecting transfer of water. NWDA has completed feasibility reports of 16 (14 under Peninsular and Indian portion and 2 under Himalayan component) water transfer links. Five links under Himalayan Component involve international dimensions; therefore, target for completion of feasibility report of such links cannot be given. One link under peninsular component falls entirely in Karnataka; as such concurrence of Karnataka is required. Feasibility Reports of remaining links are under progress.

In December 2002, MoWR with the approval of the Prime Minister of India has set up a Task Force on Interlinking of Rivers (TF-ILR) to suggest modalities for arriving at speedy consensus amongst the States for sharing and transfer of surplus water to deficit areas, providing guidance on norms of appraisal of individual projects in respect of economic viability, socio-economic impacts, environmental impacts and preparation of resettlement plans. The Task Force had submitted two Action Plans outlining the time schedules for the completion of the feasibility studies, detailed project report, estimated cost, implementation schedule, concrete benefits and advantages of the project, etc. and possible approaches for funding, cost recovery and execution of ILR programme.

After comprehensive assessment of feasibility of Interlinking of Rivers in the country, the Government decided that the Task Force on Interlinking of Rivers, which has submitted Action Plans I & II and completed its mandated task may be wound up. Accordingly, the Task Force was wound up in December 2004. A Special Cell

working under Ministry of Water Resources, will look after the residual routine work of the Task Force.

Further, the Government of India has constituted a Committee of Environmentalists, Social Scientists and other experts on ILR Project in December 2004 to advise Government on Environmental, Social issues, etc., and to involve them in the consultation process. The committee has held eight meetings so far. Last meeting was held on 5 March 2010.

The implementation of the inter-basin water transfer link schemes can be taken up in a phased manner depending on the priorities of the Government and availability of funds. But before this, certain other steps, viz., negotiations and agreements amongst the States involved in inter-basin transfer, preparation of Detailed Project Reports (DPRs), Techno-economic appraisal of DPRs and investment clearance of the schemes, funding arrangements and fixing of agencies for execution, etc., would be necessary.

The links namely (i) Ken-Betwa link; (ii) Parbati-Kalisindh-Chambal link; (iii) Godavari(Polavaram) – Krishna (Vijayawada) link; (iv) Damanganga-Pinjal link; and (v) Par-Tapi-Narmada Link have been identified as priority links for consensus building amongst concerned States for taking up preparation of Detailed Project Report (DPR).

The status of consensus among States on these links is given as under: -

Ken - Betwa link

The work of preparation of DPR has been completed on 31 December 2008. The copy of the DPR was sent to the concerned States of Uttar Pradesh and Madhya Pradesh in February 2009 for their comments. The Government of Madhya Pradesh vide letter dated 19 August 2009 sent an alternative proposal for consideration. The comments of Government of Uttar Pradesh were received vide their letter dated 23 October 2009. Comments/suggestions of the Government of Madhya Pradesh and Uttar Pradesh have been examined. The observations of MoWR on the same has been sent to the concerned states vide letter dated 19 January 2010. Further Secretary (WR) has convened a meeting with the Chief Secretaries of Uttar Pradesh and Madhya Pradesh on 3 February 2010 to discuss the further course of action in this regard. It was decided in the meeting that NWDA would finalise DPR of Phase-I of the Ken-Betwa link project consisting of Daudhan Dam, link canal and power house. The components which have been proposed by the Government of Madhya Pradesh as revised proposal, e.g reduced height of Makodia Dam, 25 barrages on main Betwa river, 10 barrages on its tributaries, 5 medium and 1 major irrigation project, which would require further Survey & Investigations would be considered as Phase-II of the Project. The revised DPR of phase-I of the Ken-Betwa link project has been sent to both the State Governments in May 2010. Meanwhile, this project has been included in the list of National projects and is eligible for 90% central grant as per the guidelines of National projects.

Par - Tapi - Narmada (P-T-N) link and Damanganga - Pinjal (D-P) link

A tripartite MoU was signed between the Union Minister of Water Resources, Chief Ministers of Governments of Gujarat and Maharashtra on 3 May 2010 in the august presence of Dr. Manmohan Singh, Prime Minister of India for preparation of DPR of Par-Tapi-Narmada link Project and Damanganga-Pinjal link Project by Central Government. The work of preparation of DPRs has been taken up by NWDA which are planned to be completed by December 2011.

Parbati-Kalisindh-Chambal link

Governments of Madhya Pradesh and Rajasthan have agreed in principle for preparation of DPR of Parbati-Kalisindh-Chambal link and informed that MoU in this regard is under their consideration. The Minister (WR) vide letter dated 7 June 2010 has again requested the Chief Ministers of the two states to expedite their concurrence for taking up DPR of P-K-C link. The same is awaited.

Godavari (Polavaram) – Krishna (Vijaywada) link

This link is a part of Polavaram Project of Andhra Pradesh. As per the proposals of the Government of Andhra Pradesh, 80 TMC of water is proposed to be transferred through this link from Godavari to Krishna basin in their State as per award of Godavari Water Dispute Tribunal. However, NWDA proposals envisage to transfer 124 TMC of water through this link to be used in Krishna Delta in Andhra Pradesh.

Meanwhile, the project as proposed by the Government of Andhra Pradesh has got clearance from Technical Advisory Committee of MoWR and investment clearance from the Planning Commission. In view of above, the Government of Andhra Pradesh would be implementing the above link as per their proposal. However, it would not have any effect on planning of other interlinking projects under NPP.

28 Welfare

THE Ministry of Social Justice and Empowerment is committed towards educational development, economic empowerment and social empowerment of persons belonging to Scheduled Castes, Other Backward Classes, rehabilitation of persons with disabilities, victims of drug abuse, aged etc.

CONSTITUTIONAL MEASURES

NATIONAL COMMISSION FOR SCHEDULED CASTES

The National Commission for Scheduled Castes, a Constitutional body monitors the safeguards provided for Scheduled Castes and also reviews issues concerning their welfare. The Commission has wide powers to protect, safeguard and promote the interests of the SCs. The Commission has been conferred powers of a civil court trying a suit, to summon and enforce the attendance of any persons from any part of India and examining on oath, receiving evidence on affidavits. The Commission for Scheduled castes has reconstituted on 25 May 2007 for a period of Three Years.

NATIONAL COMMISSION FOR SAFAI KARMACHARIS

The National Commission for Safai Karmacharis, a statutory body has, inter-alia, been empowered to investigate into specific grievances as well as matters relating to implementation of programmes and schemes for welfare of Safai Karmacharis.

PROTECTION OF CIVIL RIGHTS ACT, 1955 AND SCHEDULED CASTES AND SCHEDULED TRIBES (PREVENTION OF ATROCITIES) ACT, 1989

The Constitution contain several provisions in the nature of safeguards for the Scheduled Castes. The following two Acts specifically aim at curbing (i) untouchability and (ii) atrocities against SCs and STs, and are therefore very important for the Scheduled Castes:-

1. The Protection of Civil Rights Act, 1955, and
2. The Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989.

Protection of Civil Rights Act, 1955

In pursuance of Article 17 of the Constitution of India, the Untouchability (Offences) Act, 1955 was enacted and notified on 8, May 1955. Subsequently, it was amended and renamed in the year 1976 as the "Protection of Civil Rights Act, 1955". Rules under this Act, viz. "The Protection of Civil Rights Rules, 1977" were notified in 1977. The Act extends to the whole of India and provides punishment for the practice of untouchability. It is implemented by the respective State Governments and Union Territory Administrations.

Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act 1989

The Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989 (the POA Act) came into force with effect from 30.01.1990. This legislation aims at preventing commission of offences by persons other than Scheduled Castes and Scheduled Tribes against Scheduled Castes and Scheduled Tribes. Comprehensive Rules under this Act, titled "Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities Rules, 1995" were notified in the year, 1995, which *inter-alia*, provide

norms for relief and rehabilitation. The Act extends to whole of India except Jammu and Kashmir. The Act is implemented by the respective State Governments and Union Territory Administrations, which are provided due central assistance under the Centrally Sponsored Scheme for effective implementation of the provisions of the Act.

Committee to review implementation of PCR and POA Acts

The Parliamentary Committee on the Welfare of the Scheduled Castes and the Scheduled Tribes in its fourth Report (2006-2007) had *inter-alia* recommended that Ministry of Social Justice and Empowerment, Ministry of Home Affairs, National Commission for Scheduled Castes and National Commission for Scheduled Tribes should meet regularly to devise ways and means to curb atrocities and ensure effective administration of the Protection of Civil Rights Act, 1955 and the Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989. In pursuance of this recommendation, a Committee for effective coordination to devise ways and means to curb offences of untouchability and atrocities against Scheduled Castes and Scheduled Tribes and effective implementation of the two Acts was set up under the Chairpersonship of Minister for Social Justice and Empowerment in March, 2006. Apart from other official members, the Committee has three non-official representatives from amongst Scheduled Castes and Scheduled Tribes, as Members. The Committee has so far held nine meetings wherein 25 States and 4 Union Territories have been reviewed. The ninth meeting of the Committee was held on 6 February 2010 to review implementation of the two Acts in Gujarat, at Gandhinagar. Review of implementation of the PCR and PoA Acts in Madhya Pradesh, was also undertaken by the Minister for Social Justice and Empowerment at Bhopal on 27 October 2009.

EDUCATIONAL DEVELOPMENT

Post Matric Scholarship

The objective of the scheme is to provide financial assistance to the Scheduled Caste students studying at post matriculation or post-secondary stage to enable them to complete their education. The financial assistance includes maintenance allowance, reimbursement of nonrefundable compulsory fee charged by educational institutions, Book Bank facility and other allowances. The scholarships are available for studying in India only and are awarded by the Government of the States/Union Territories to which the applicant actually belongs.

With effect from 1 April 2003 all post matric courses have been regrouped under 4 groups I, II, III & IV. The income ceiling was enhanced to Rs. 1.00 lakh p.a. and the maintenance and other allowances were raised accordingly. All the State Governments/UT Administrations have been advised to ensure that cash payment of scholarship is avoided and the scholarship is paid to the students through Post Offices/Bank accounts and Smart Cards by opening accounts in the name of beneficiary.

Pre-Matric Scholarships for Children of those engaged in Unclean Occupation :

The Scheme was started in 1977-78. Initially, the scheme covered only hostellers. Subsequently, in the year 1991 day scholars were also brought within the purview of the scheme. Under the scheme financial assistance is provided for pre-matric education to children of the following target groups, viz. (i) scavengers of dry latrines, (ii) sweepers having traditional links with scavenging, (iii) tanners, and (iv) layers (v) manhole and open drain cleaners.

Assistance under the scheme consists of two components, viz.

- (i) Monthly Scholarship (for 10 months)

- (ii) Annual Ad hoc Grant (to cover incidental expenses like stationery, uniform. etc.)

There is no income ceiling or caste restriction for eligibility

There are special provisions for studeeents amongst larget group with diabilities.

The scheme is implemented through State Governments.

The scheme was revised in December 2008.

Rajiv Gandhi National Fellowship Scheme : The Scheme provides financial assistance to Scheduled Caste students for pursuing research studies leading to M. Phil., Ph.D. and equivalent research degree in universities, research institutions and scientific institutions. University grants Commission (UGC) is the nodal agency for implementing the scheme. 1,333 Research Fellowships (Junior Research Fellows) per year are awarded to Scheduled Caste Students. In case of non-availability of adequate number of Scheduled Caste candidates, the number of fellowships not availed during a year will be carried forward to the next academic session. In case, the number of candidates exceeds the number of available awards, the UGC selects the candidates based on the percentage of marks obtained by the candidates in their Post Graduation examination.

National Overseas Scholarship

National Overseas Scholarship is meant to provide assistance to selected Scheduled Caste, denotified, nomadic, semi-nomadic tribes, landless agricultural laborers and traditional artisans' students for pursuing higher studies of Master level courses and PhD programmes abroad in specified fields of Engineering, Technology and Science only.

The Scheme provides for fees charged by institutions as per actual, monthly maintenance allowance, passage visa fee and insurance premium, etc. annual contingency allowance, incidental journey allowance. Only one child of the same parents/guardians is eligible to get benefit under the Scheme. The prospective awardees should not be more than 35 years of age.

Important Changes

The income ceiling from all sources of the employed candidate or his/her parents/guardians has been raised from ₹ 18000/- per month to ₹ 25,000/- per month. The number of awards has been enhanced from 20 to 30 from the selection year 2007-08 onwards. Thirty per cent of the awards have been earmarked for women candidates from the selection year 2007-2008. If unutilized by women candidates, the awards may be available to male candidates belonging to Scheduled Castes etc. The rates of various components of scholarship have been enhanced.

Upgradation of Merit for SC Students

To upgrade the merit of Scheduled Castes students by providing them with facilities for their all-reound development through education in residential schools, it is proposed to be done by (i) removing their educational deficiencies (ii) facilitatng their entry into professional courses by upgrading their merit and (iii) generating self-confidence and self-reliance in them.

Target Group

Scheduled Castes students studying from Class IX to Class XII, are the target group. 100 per cent central assistance is provided to the States/UTs through a package grant

of ₹ 15,000/- per student per year for purposes. Special allowance like readers allowance, transport allowance, escorts allowance etc. are given to students with disabilities.

Free Coaching for SCs and OBCs

Objective of the Scheme includes providing quality coaching for Group A and B examinations conducted by UPSC, SSC, Railway Recruitment Boards and the State Public Service Commissions; Officers' Grade examinations conducted by Banks, Insurance Companies and Public Sector Undertakings (PSUs) and training for Finishing courses/job-oriented courses for employment in the private sector like IT, Bio-technology etc. in need of soft skill as well.

The scheme is implemented through the reputed coaching institutions/centres run by the State Governments/UT Administrations, Universities and the private sector organizations.

Babu Jagjivan Ram Chhatrawas Yojana

The object of the Scheme is to provide hostel facilities to SC boys and girls studying in middle schools, higher secondary schools, colleges and universities. The State Governments/Union Territory Administrations and the Central and State universities/institutions are eligible for central assistance, both for fresh construction of hostel buildings and for expansion of the existing hostel facilities while NGOs and deemed universities in the private sector can avail the benefit only for expansion of their existing hostel facilities.

In addition to the admissible central assistance under the Scheme, one-time grant of ₹ 2500 per student would also be provided for making provisions of a cot, a table and a chair for each student.

Dr. Ambedkar Foundation

The main objective of the Foundation *inter alia* include implementation of programmes and activities for furthering the ideology and message of Babasaheb Dr. Bhimrao Ramji Ambedkar among the masses in India as well as abroad. The foundation has been entrusted with the responsibility of managing, administering and carrying on the important and long-term schemes and programmes identified during the Centenary Celebrations of Bharat Ratna Dr. B.R. Ambedkar. The General Body is the Supreme Body of Dr. Ambedkar Foundation. It is headed by Hon'ble Minister of Social Justice and Empowerment. There are 11 ex-officio members representing various disciplines of Education, Social Justice and Empowerment from amongst the eminent social workers, educationists, journalists etc.

The Governing Body of the Foundation is vested with powers of direction, control and administration of the Foundation. It is headed by Hon'ble Minister of Social Justice and Empowerment with Secretary, Social Justice and Empowerment, Financial Adviser, SJ&E and Joint Secretary (SCD) as ex-officio members. There are also four nominated members among the members of General Body.

ECONOMIC EMPOWERMENT

Special Central Assistance to Scheduled Castes Sub Plan (SCSP)

Special Central Assistance (SCA) to Scheduled Castes Sub Plan (SCSP) is a central sector scheme, started in 1980, under which 100 per cent grant is given to the States/UTs, as an additive to their Scheduled Castes Sub Plan (SCSP). The main objective is to give a thrust to family oriented schemes of economic development of SC families living below the poverty line.

Salient features of the scheme

- Funds under the scheme are provided as an additive to States/UTs implementing SCSP
- Main thrust is on economic development of SC population in order to bring them above poverty line through self employment or training
- Amount of subsidy admissible under the scheme is 50 per cent of the project cost, subject to a maximum of ₹ 10,000/- per beneficiary.
- Upto 10 per cent of the total release to States/UTs can be utilized for infrastructure development in villages having 50 per cent or more SC population
- At least 15 per cent of the SCA to be utilized by States/UTs for SC women.

Assistance to State Scheduled Castes Development Corporations

The Centrally Sponsored Scheme for participating in the equity share of the Scheduled Castes Development Corporation (SCDCs) in the ratio of 49:51 was introduced in 1979. At present, SCDCs are functioning in 27 States/UTs. The main functions of SCDCs include identification of eligible SC families and motivating them to undertake economic development schemes, sponsoring the schemes to financial institutions for credit support, providing financial assistance in the form of margin money at low rate of interest and subsidy in order to reduce the repayment liability and providing necessary tie up with other poverty alleviation programmes. The SCDCs are playing an important role in providing credit and inputs by way of margin money loans and subsidy to the target group. The SCDCs finance employment oriented schemes are covering; (i) Agriculture and allied activities including minor irrigation, (ii) Small Scale Industry, (iii) Transport and (iv) Trade and Service Sector. SCDCs finance projects by dovetailing loan component from NSFDC/banks along with margin money out of their own funds and subsidy out of Special Central Assistance (SCA). During the last 3 years from 2007-08 to 2009-10 (upto 31.12.09). ₹ 51.17 crore has been released to SCDCs.

National Scheduled Castes Finance and Development Corporation

The National Scheduled Castes Finance and Development Corporation (NSFDC) was set up by the Government of India in February, 1989 under Section 25 of the Companies Act, 1958. The broad objective of NSFDC is to provide financial assistance in the form of concessional loans to all the Scheduled Castes families living below Double the Poverty Line [presently ₹ 40,000 per annum for rural area and ₹ 55,000 per annum for urban areas] for their economic development uplift and economic empowerment through their various schemes.

The Authorized Share Capital of the Corporation in ₹ 1,000 crore and Paid-Up Capital is ₹ 521.00 crore. During 2009-10, ₹ 44.00 crore was released as equity to the Corporation. During 1.4.2004 to 31. 12. 2009 the Corporation has disbursed an amount of ₹ 845.00 crore covering 2.86 lakh beneficiaries. NSFDC functions through Channel Finance System in which the NSFDC concessional loans are routed to the beneficiaries through the State Channelizing Agencies (SCAs) appointed by the respective State Governments/Union Territory Administrations.

Self-Employment Scheme for Rehabilitation of Manual Scavengers (SRMS)

Rehabilitation of manual scavengers and their dependents into alternative occupations is one of the components of the three pronged strategy for eradication of manual scavenging. Earlier a scheme called National Scheme for Liberation and

Rehabilitation of Scavengers and their Dependents (NSLRS) was started in 1991-82 to rehabilitate manual scavengers and their Dependents (NSLRS) in a time bound manner.

Voluntary Organizations Working for the Welfare of SCs

The basis objective/purpose of the scheme of Grants-in-Aid to Voluntary Organizations is to provide financial assistance for undertaking projects for the development of the Scheduled Castes, so as to enable them to start income generating activities on their own or get gainful employment. Financial assistance is provided under this Scheme to the extent of 90 per cent of total approved expenditure given to eligible voluntary organizations upto ₹ 10 lakhs per project. Projects are in 39 areas of different activities, mostly relating to the educational and vocational sectors e.g. Mobile Dispensaries, Residential/Non-residential Schools, 10 bedded Hospitals, Computer Training Centres etc. GIA is provided for making payment etc. During the financial year 2009-10 (upto 31.12.09), Grant-in-Aid amounting to ₹ 4.64 Crore has been sanctioned/released to 98 voluntary organizations spread across the country benefiting 9285 beneficiaries.

National Safai Karamcharis Finance and Development Corporation

National Safai Karamcharis Finance and Development Corporation NSKFDC extends concessional finance assistance to the Safai Karmcharies beneficiaris for establishments 'Mahila Samridhi Yojana'. The Corporation has assisted 1.97 lakh and disbursed ₹ 530.25 crore during 2009-10.

DEVELOPMENT OF SCHEDULED TRIBES

The tribal people of India, who come under the category of '*Scheduled Tribes*' (STs) in terms of the provisions of the Constitution of India, number 8.43 crore--constituting 8.2 per cent of the population of the country (Census 2001).

Scheduled Areas and Tribal Areas : Scheduled Tribes live in contiguous areas unlike other communities. It is, therefore, much simpler to have an area-approach for development activities and also regulatory provisions to protect their interests.

In order to protect the interests of Scheduled Tribes with regard to land alienation and other social factors, provisions of "Fifth Schedule" and "Sixth Schedule" have been enshrined in the Constitution.

The Fifth Schedule under Article 244(1) of Constitution defines "*Scheduled Areas*" as such areas as the President may by Order declare to be Scheduled Areas after consultation with the Governor of the State.

The Sixth Schedule under Article 244 (2) of the Constitution relates to those areas in the States of Assam, Mehalaya, Tripura and Mizoram which are declared as "*Tribal Areas*" and provides for District Councils and/or Regional Councils for such Areas. These Councils have been conferred with wide ranging legislative, judicial and executive powers.

The Fifth Schedule Areas : The criteria for declaring any area as a "*Scheduled Area*" under the Fifth Schedule are: (a) Preponderance of tribal population, (b) Compactness and reasonable size of the area, (c) A viable administrative entity such as a district, block or taluk, and (d) Economic backwardness of the area as compared to neighbouring areas.

The specification of "*Scheduled Areas*" in relation to a State is done by a notified Order of the President, after consultation with the State Governments concerned. The

same applies for altering, increasing, decreasing, incorporating new areas, or rescinding any Orders relating to "Scheduled Areas".

The advantages of *Scheduled Areas* are that : (a) The Governor of a state, which has Scheduled Areas, is empowered to make regulations in respect of the following: (i) Prohibit or restrict transfer of land from tribal people; (ii) Regulate the business of money lending to the members of Scheduled Tribes. In making any such regulation, the Governor may repeal or amend any Act of Parliament or of the Legislature of the State, which is applicable to the area in question. (b) The Governor may by public notification direct that any particular Act of Parliament or of the Legislature of the State, shall not apply to a *Scheduled Area* or any part thereof in the State or shall apply to such area subject to such exceptions and modifications as he may specify. (c) The Governor of a State having *Scheduled Areas* therein, shall annually, or whenever so required by the President of India, make a report to the President regarding the administration of the *Scheduled Areas* in that State and the executive power of the Union shall extend to the giving of directions to the State as to the administration of the said area. (d) Tribes Advisory Council (TAC) shall be established in States having Scheduled Areas. The role of TAC is to advise the State Government on matters pertaining to the welfare and advancement of the Scheduled Tribes in the State as may be referred to it by the Governor. The TAC will consist of not more than twenty members of whom about 3/4 are from ST-MLAs. The TAC may also be established in any State having Scheduled Tribes but not Scheduled Areas on the direction of the President of India. (e) The *Provisions of the Panchayats (Extension to Scheduled Areas) Act, 1996 (PESA)*, vide which the provisions of Panchayats, contained in Part IX of the Constitution, were extended to Scheduled Areas, also contain special provisions for the benefit of Scheduled Tribes.

The Sixth Schedule - Tribal Areas : The Sixth Schedule under Article 244 of the Constitution identifies Autonomous districts in the Tribal Areas in the states of Assam, Meghalaya, Tripura and Mizoram. It also makes provisions for recognition of Autonomous Regions within these Autonomous Districts. These have been specified in Parts I, II, IIA & III of the table appended to paragraph 20 of the Sixth Schedule. In other words, areas where provisions of Sixth Schedule are applicable are known as Tribal Areas. The State-wise details of Tribal Areas are as under :-

Part-I	Assam	<ol style="list-style-type: none"> 1. The North Cachar Hills District 2. The Karbi-Anglong District 3. The Bodo Land Territorial Area Districts
Part II	Meghalaya	<ol style="list-style-type: none"> 1. Khasi Hills District 2. Jaintia Hills District 3. The Garo Hills District
Part IIA	Tripura	Tripura Tribal Areas District
Part III	Mizoram	<ol style="list-style-type: none"> 1. The Chakma District 2. The Mara District 3. The Lai District

The District or Regional Councils are empowered to make rules with the approval of the Governor with regard to matters like establishment, construction or management of primary schools, dispensaries, markets, cattle ponds, ferries, fisheries, roads, road transport and water ways in the district. The Autonomous Councils of the North Cachar Hills and Karbi Anglong have been granted additional powers to make laws with respect to other matters like secondary education, agriculture, social security and social insurance, public health and sanitation, minor irrigation etc.

The Councils have also been conferred powers under the Civil Procedure Code and Criminal Procedure Code for trial of certain suits and offences, as also the powers of a revenue authority for their area for collection of revenue and taxes and other powers for the regulation and management of natural resources.

PROCEDURE FOR DECLARATION AS ST

The term *Scheduled Tribes* is defined in the Constitution of India under Article 366(25) as *such tribes or tribal communities or parts of groups within such tribes or tribal communities as are deemed under Article 342 to be Scheduled Tribes for the purposes of this Constitution*. Article 342 prescribes the procedure to be followed in the matter of specification of Scheduled Tribes.

In terms of Article 342(1), the President may, with respect to any State or Union Territory, and where it is State, after consultation with the Governor thereof, notify tribes or tribal communities or parts thereof as Scheduled Tribes. This confers on the tribe or part of it a constitutional status invoking the safeguards provided for in the Constitution, to these communities in their respective States/UTs.

Thus, in terms of Article 342(1), only those communities who have been declared as such by the President through an initial public notification will be considered as Scheduled Tribes. Any further amendment in the list is to be done through an Act of Parliament (Article 342(2)). Parliament may, by law, include in or exclude from the list of Scheduled Tribes, any tribe or tribal community or parts of thereof.

The list of Scheduled Tribes is State-specific. In other words, a community declared as Scheduled Tribe in one State need not be so in another State.

SCHEDULING AND DE-SCHEDULING OF TRIBES

Thus, the first specification of Scheduled Tribes in relation to a particular State/ Union Territory is by a notified order of the President, after consultation with the State Governments concerned. The above Article also provides for listing of Scheduled Tribes State-wise/UT-wise and not on an all-India basis.

The criteria generally adopted for specification of a community as a Scheduled Tribe are : (a) indications of primitive traits; (b) distinctive culture; (c) shyness of contact with the community at large; (d) geographical isolation i.e. backwardness.

These are not spelt out in the Constitution but have become well established. They take into account the definitions in the 1931 Census, the reports of the first Backward Classes Commission (Kalelkar) 1955, the Advisory Committee on Revision of SC/ ST lists (Lokur Committee) 1965 and the Joint Committee of Parliament on the Scheduled Castes and Scheduled Tribes Orders (Amendment) Bill, 1967 (Chanda Committee) 1969.

There are over 700 tribes (with many of them overlapping in more than one State) as notified under Article 342 of the Constitution of India, spread over different States and Union Territories of the country. It is worth noting that no community has

been specified as a Scheduled Tribe in relation to the States of Haryana and Punjab and the Union Territories of Chandigarh, Delhi and Puducherry.

ASCERTAINING ST STATUS OF INDIVIDUALS

General

Where a person claims to belong to a Scheduled Tribe by birth, it should be verified: (a) that the person and his parents actually belong to the community claimed; (b) that the community is included in the Presidential Order specifying the Scheduled Tribes in relation to the concerned State; (c) that the person belongs to that State and the area within that State in respect of which the community has been scheduled; (d) he may profess any religion; (e) that he or his parents/grandparents, etc., should be permanent resident of the State/UT on the date of notification of the Presidential Order applicable in his case; (f) a person who is temporarily away from his permanent place of residence at the time of the notification of the Presidential Order—applicable in his case, say for example to earn a living or seek education, etc. can also be regarded as a Scheduled Tribe, if his tribe has been specified in that order in relation to his home State/Union Territory; (g) but he cannot be treated as such in relation to the place of his temporary residence notwithstanding the fact that the name of his tribe has been scheduled in respect of that State where he is temporarily settled, in any Presidential Order; (h) in the case of persons born after the date of notification of the relevant Presidential Order, the place of residence for the purpose of acquiring Scheduled Tribe status, is the place of permanent abode of their parents at the time of the notification of the Presidential Order under which they claim to belong to such a tribe. This does not apply to the STs of the Lakshadweep Islands for whom there is a requirement of being born in the U.T. in order to be eligible for ST status.

Scheduled Tribe claims on migration

- i) Where a person migrates from the portion of the State in which his/her community is scheduled, to another part of the same State in respect of which his/her community is not scheduled, the person will continue to be deemed to be a member of the Scheduled Tribe, in relation to that State
- ii) Where a person migrates from one State to another, he can claim to belong to a Scheduled Tribe only in relation to the State to which he originally belonged and not in respect of the State to which he has migrated.

Scheduled Tribe claims through marriages

The guiding principle is that no person who is not a Scheduled Tribe by birth will be deemed to be a member of Scheduled Tribe merely because he or she has married a person belonging to a Scheduled Tribe. Similarly a person who is a member of a Scheduled Tribe will continue to be a member of that Scheduled Tribe, even after his or her marriage with a person who does not belong to a Scheduled Tribe.

Issue of Scheduled Tribe certificates

The candidates belonging to Scheduled Tribes may get Scheduled Tribe certificates, in the prescribed form, from any one of the following authorities: (1) District Magistrate/Additional District Magistrate/Collector/Deputy Commissioner/Additional Deputy Commissioner/Deputy Collector/1st Class Stipendiary Magistrate/City Magistrate/Sub Divisional Magistrate/Taluka Magistrate/Executive Magistrate/Extra Assistant Commissioner [not below the rank of 1st Class Stipendiary Magistrate]. (2) Chief Presidency Magistrate/Additional Chief Presidency

Magistrate/Presidency Magistrate. (3) Revenue Officers not below the rank of Tehsildar. (4) Sub-Divisional Officer of the Area where the candidate and/or his family normally resides. (5) Administrator/Secretary to the Administrator/Development Officer (Lakshadweep Islands).

Punishments for officials issuing Scheduled Tribe Certificates without proper verification

Action is to be taken under the relevant provisions of the Indian Penal Code if any official is found to have issued a Scheduled tribe certificate carelessly and without proper verification. This will be in addition to other action to which they are liable under the appropriate disciplinary rules applicable to them.

Liberalization of procedure for issue of Scheduled Tribe certificates to migrants from other States/Union Territories.

Persons belonging to a Scheduled Tribe who have migrated from one State to another for the purpose of employment, education etc. experience great difficulty in obtaining ST certificates from the State from which they have migrated. In order to remove this difficulty, it has been decided that the prescribed authority of a State Government/Union Territory Administration may issue a Scheduled Tribe certificate to a person who migrated from another state, on the production of the genuine certificate issued to his father/mother by the prescribed authority of the State of the father/mother's origin except where the prescribed authority feels that a detailed enquiry is necessary through the state of origin before issue of the certificate. The certificate will be issued irrespective of whether the tribe in question is scheduled or not in relation to the State/Union Territory to which the person has migrated to.

Procedure for inclusion in or exclusion from the list of Scheduled Tribes

In June 1999, the Government approved modalities for deciding claims for inclusion in, or exclusion from, the lists of Scheduled Tribes. According to these approved guidelines, only those claims that have been agreed to by the concerned State Government, the Registrar General of India and the National Commission for Scheduled Castes and Scheduled Tribes will be taken up for consideration.

Whenever representations are received in the Ministry for inclusion of any community in the list of Scheduled Tribes of a State/UT, the Ministry forwards that representation to the concerned State Government/UT Administration for recommendation as required under Article 342 of the Constitution. If the concerned State Government recommends the proposal, then the same is sent to the Registrar General of India (RGI).

If RGI is satisfied with recommendation of the State Government and recommends the proposal to the Central Government, the Government refers the proposal to the National Commission for Scheduled Tribes for their recommendation. If the National Commission for Scheduled Tribes also recommends the case, the matter is processed for the decision of the cabinet after consulting the concerned administrative Ministries. Thereafter the matter is put up before the Parliament in the form of a Bill to amend the Presidential Order.

GENERAL STATISTICS

According to the 2001 Census, the population of Scheduled Tribes in the country was 8.43 crore - i.e., constituting 8.2 per cent of the total population of the country.

DEMOGRAPHIC STATISTICS : 2001 CENSUS

S. No.	India/State	Total population	ST Population	Percentage of STs to total population in the State
1	Mizoram	888,573	839,310	94.5
2	Lakshadweep	60,650	57,321	94.5
3	Nagaland	1,990,036	1,774,026	89.1
4	Meghalaya	2,318,822	1,992,862	85.9
5	Arunachal Pradesh	1,097,968	705,158	64.2
6	Dadra and Nagar Haveli	220,490	137,225	62.2
7	Manipur	2,166,788	741,141	34.2
8	Chhattisgarh	20,833,803	6,616,596	31.8
9	Tripura	3,199,203	993,426	31.1
10	Jharkhand	26,945,829	7,087,068	26.3
11	Orissa	36,804,660	8,145,081	22.1
12	Sikkim	540,851	111,405	20.6
13	Madhya Pradesh	60,348,023	12,233,474	20.3
14	Gujarat	50,671,017	7,481,160	14.8
15	Rajasthan	56,507,188	7,097,706	12.6
16	Assam	26,655,528	3,308,570	12.4
17	J&K	10,143,700	1,105,979	10.9
18	Maharashtra	96,878,627	8,577,276	8.9
19	Daman and Diu	158,204	13,997	8.8
20	Andaman and Nicobar	356,152	29,469	8.3
21	Andhra Pradesh	76,210,007	5,024,104	6.6
22	Karnataka	52,850,562	3,463,986	6.6
23	West Bengal	80,176,197	4,406,794	5.5
24	Himachal Pradesh	6,077,900	244,587	4.0
25	Uttarakhand	8,489,349	256,129	3.0
26	Kerala	31,841,374	364,189	1.1
27	Tamilnadu	62,405,679	651,321	1.0
28	Bihar	82,998,509	758,351	0.9
29	Uttar Pradesh	166,197,921	107,963	0.1
30	Goa	1,347,668	566	0
31	Haryana	21,144,564	0	0
32	Punjab	24,358,999	0	0
33	Chandigarh	900,635	0	0
34	Delhi	13,850,507	0	0
35	Puducherry	974,345	0	0
	India	1,028,610,328	84,326,240	8.2

The tribal population are normally seen to be living in the following three categories of locations:

1.	North-Eastern Region (NER)	Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim
2.	Central Tribal Belt (CTB)	Rajasthan, Gujarat, Maharashtra, Madhya Pradesh, Chhattisgarh, Andhra Pradesh, Orissa, Bihar, Jharkhand West Bengal, Dadra and Nagar Haveli, and Daman and Diu
3.	Other States/ UTs	Himachal Pradesh, Uttar Pradesh, Uttarakhand, Karnataka, J and K, Tamilnadu, Kerala, Andaman and Nicobar Islands, and Lakshadweep.

The Tribal communities live in about 15 per cent of the country's area, in varying ecological and geo-climatic conditions, plains, forests, hills and inaccessible areas. Tribal groups are at different stages of social, economic and educational development. They have their presence in the States and Union Territories except Haryana, Punjab, Chandigarh, Delhi and Puducherry. The predominant tribal-populated States of the country (i.e., those with tribal population of more than 50 per cent of the total population of the State are: Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, Union territories of Dadra and Nagar Haveli and Lakshadweep. If a comparison is made amongst ST population alone, more than half the ST population of the country is concentrated in the States of Madhya Pradesh, Chhattisgarh, Maharashtra, Orissa, Jharkhand and Gujarat. The largest number of tribes (i.e. 62) are in the State of Orissa. The next major concentration is in the North-Eastern States.

Primitive Tribal Groups (PTGs) : While some tribal communities have adopted a mainstream way of life at one of the spectrum, there are 75 Primitive Tribal Groups (PTGs) in 17 States and Union Territories of Andaman and Nicobar Islands, who are characterized by:- (a) a pre-agriculture level of technology, (b) a stagnant or declining population, (c) extremely low literacy, and (d) a subsistence level of economy.

Their total population as per the 1991 census was about 24.12 lakh. Most of these groups are small in number, have attained various levels of social and economic progress and generally live in remote habitat, with poor administrative and infrastructure back up.

Population Profile: Many indicators in respect of Scheduled Tribes like their demography, sex-ratio, education, livelihood profile, health profile have been compiled periodically through the Census operations or by the National Sample Survey Organisation (NSSO) or the Central Statistical Organisation (CSO).

The population of Scheduled Tribes has been on the increase since 1961. The census reveals that the tribal population had grown at the rate of 24.45 per cent during the period 1991-2001. The decadal population growth between the Census Year 1981 to 1991 in respect of the tribal population had been higher (31.64 per cent) than that for the overall population (23.51 per cent). However during census years 1991 to 2001 it had been 24.45 per cent against the growth rate of 22.66 per cent for the entire population.

As compared to the sex ratio for the overall population (933 females per 1000 male), the sex ratio among Scheduled Tribes is more favourable, at 978 females per 1,000 males (2001 census).

Literacy: The literacy rate for overall population has increased from 52.2 per cent to 65.38 per cent between 1991 to 2001. In case of Scheduled Tribes the increase in literacy has been from 29.62 per cent to 47.10 per cent. The literacy rate among tribals (47.10 per cent) is however far below the overall literacy in the country (64.8 per cent).

The female literacy rate among tribals during the period 1991 to 2001 increased from 18.2 per cent to 34.8 per cent which is lower by approximately 20 per cent as compared to literacy rate of the females of the general population. However, the significant point is the increase in the total as well as the female literacy among tribals. These disparities are compounded by higher dropout rates in formal education, resulting in a disproportionately low representation in higher education.

Job profile: According to the 1991 Census figures, 42.02 per cent of the ST population were main workers, of whom 54.50 per cent were cultivators and 36.09 per cent agricultural labourers. Thus, about 82 per cent of the main workers from these communities were engaged in primary sector activities.

Indicators of Backwardness: Not surprisingly, the cumulative effect has been that the proportion of Scheduled Tribes below the poverty line is substantially higher than the national average. A majority of Scheduled Tribes continue to live below the poverty line, have poor literacy rates, suffer from malnutrition and diseases and are vulnerable to displacement.

The Central Government and the State Governments have been implementing schemes/programmes for the upliftment of STs like reservation in Services, Tribal Sub-Plans, Central Schemes, Centrally Sponsored Schemes, etc. However, a lot more is required to be done to achieve the desired development goals for STs.

DEVELOPMENT OF STs

We have seen that the HDI (Human Development Indices) of tribal population is quite low as compared to the rest of the population. This is mainly because they live in clusters generally in far flung areas, which are remote or in the vicinity of forests. The development programmes meant for the general public often elude the tribal population for the reasons of inaccessibility and difficult terrain. Nevertheless the Government of India and the State Governments have taken a number of measures over the years to improve the conditions of STs and for their development. But a lot more needs to be done. This emphasis on development of STs is quite visible in the Agenda Items of the National Common Minimum Programme (NCMP) adopted by the Central Government in May 2004.

TRIBAL SUB-PLAN (TSP)

Upgradation of administration through the innovative strategy of the Tribal Sub-Plan (TSP) for STs was launched at the beginning of the 5th Five Year Plan in 1974-75, covering 21 States and 2 U.T.S., where Scheduled Tribes constitute a sizeable population. This special strategy was expected to ensure that all the general development sectors, both at the Central and State levels, earmark funds for STs in proportion to their population so that adequate benefits from all the concerned sectors flow to this disadvantaged group. Thus the TSP strategy seeks to ensure adequate flow of funds for tribal development not only under every State Plan funds, but also from all the Central Ministries/Departments. TSP is a part of the overall plan of a State/UT or a Central Ministry/Department, and is therefore called a Sub-Plan.

The TSP to promote development activities through legal and administrative support. The TSP strategy is being implemented through 195 Integrated Tribal

Development Projects (ITDPs)/Integrated Tribal Development Agencies (ITDAs), 259 Modified Area Development Approach (MADA) and 82 Clusters. The benefits of the Tribal Sub-Plan are also extended to the scattered tribal population.

The TSP is financed by four sources namely, flow from Centrally Sponsored Schemes, Special Central Assistance, State Plan, and Institutional finance. The Central Ministries have also been requested to utilize at least 8 per cent of their budget for the welfare and development of Scheduled Tribes.

SPECIAL CENTRAL ASSISTANCE FOR TRIBAL SUB-PLAN

In support of TSP, the Government of India launched the SCA scheme in 1974 to the States and the UTs, as an additive to fill up the gaps, especially in the family based income-generating programmes. As a result, there has been a substantial increase in the flow of funds during the Ninth Five Year Plan for the development of STs besides enlargement of the share of benefits for STs under all the development programmes.

The SCA to TSP is provided by the Ministry of Tribal Affairs to 21 Tribal Sub-Plan States including North Eastern States of Assam, Manipur and Tripura. Since 2003-04 the Ministry of Home Affairs is releasing the funds under SCA to TSP meant for the UTS.

The SCA is to be utilised in conjunction with the TSP flow with a view to meeting the gaps, which are not otherwise taken care of by the State Plan. The objective and scope of SCA to TSP was originally meant for filling up of the critical gaps in the family-based income-generation activities of the TSP. From the Tenth Five Year Plan, the objective and scope of SCA to TSP has been expanded to cover the infrastructure incidental to income-generation.

The funds released under SCA to TSP to State Governments/UT Administrations are as follows.

	(Rs. in crore)
Five Year Plan	Fund released
V	119.31
VI	486.11
VII	846.95
VIII	1484.12
IX	2009.61
X	2960.83
XI (2007-08)	631.80

Grants under the First Proviso to Article 275(1) of the Constitution : The Constitution of India under the First Proviso Article 275(1) of the Constitution provides for assured special financial assistance for promoting the welfare of STs and for raising the level of administration of the Scheduled Areas to that of the rest of the State.

Programme for Development of Forest Villages

Development of forest villages is one of the thrust areas of tribal development during the 10th Five Year Plan. The Planning Commission allocated ₹ 450 crore to the Ministry of Tribal Affairs for the development of forest villages at an average allocation of ₹ 15 lakh per village. There are about 2,474 such forest villages at an average allocation of ₹ 15 lakh per village. There are about 2,474 such forest villages in 12 States, which are

still managed by State Forest Departments. It is estimated that there are about 2.5 lakh tribal families in these villages. A process of conversion of these forest villages into revenue earning villages is underway.

Releases made in various Plans under Article 275(I)

Plan	Rs. in crore
V	60.00
VI	80.00
VII	100.00
VIII	340.00
IX	741.00
X	1662.70
XI	390.28

Towards the end of Tenth Plan, a considered view was taken that the programme may be continued for a limited period during the XI Plan also, keeping in view the need for adequate developmental activities to be undertaken in these villages pending conversion into revenue villages. It has also been decided that an additional funding upto ₹ 15 lakh would be provided to all those forest villages that have availed the first phase funding during the 10th Plan. Proposals have accordingly been received from most of the villages from the State Governments for this and ₹ 255.55 crore has been released so far for the 2nd phase funding.

Scheme for Primitive Tribal Groups (PTGs): A Central Sector Scheme was introduced in 1998-99 for the all-round development of these groups under which financial assistance is made available to Integrated Tribal Development Projects, Tribal Research Institutes and Non-Governmental Organisations for undertaking projects/ activities not covered by any of the existing schemes.

Scheme of Construction of Hostels for ST Boys and Girls: Under the scheme, Central assistance is given to States/UTs for construction of new hostel buildings and/or extension of existing hostels. In this scheme till 2007-08 the cost of the construction of the hostel building was equally shared between the Centre and the State in ratio of 50:50. In case of UTs, the Central Government bore the entire cost of the building. The cost of construction is based on the State PWD schedule of rates or local CPWD schedule of rates, which is lower. Maintenance of the hostel is the responsibility of the concerned States/UTs. The number of seats in a hostel was 100.

The scheme of Construction of Hostel for ST Boys and Girls is being continued in the 11th Five Year Plan period with the following modifications:

- 1) Central Assistance for Construction of ST Girls Hostels in all States/UTs/ Universities will be 100 per cent of the cost of construction.
- 2) Central Assistance for Construction of Boys' Hostel for ST Boys will be 100 per cent in identified naxal-affected areas and will remain at 50 per cent in all other areas. Universities in naxal-affected areas would be entitled to receive 100 per cent Central assistance.
- 3) Central assistance would also be given on the same pattern in respect of vocational training centres if sought by States/UTs.

- 4) The construction period for the hostels has been reduced from 5 years to 2 years.

Establishment of Ashram School in Tribal Sub-Plan Area : The scheme of Ashram School has as its objective the establishment of residential schools for STs in an environment conducive to learning to increase the literacy rates among the tribal students and to bring them at par with the other population of the country. The funding for the scheme with the State is done on matching (50-50) basis, while cent percent assistance is given to UTs.

Upgradation of Merit of ST Students : The objective of this scheme is to upgrade the merit of ST students by providing them remedial and special coaching in classes IX to XII, to prepare the students for competitive examinations for seeking entry into professional courses like Engineering and Medical disciplines. The scheme provides for 100 per cent Central assistance to the States/UTs.

Post-Matric Scholarships for Scheduled Tribes Students

The objective of the scheme is to provide financial assistance to students belonging to STs pursuing Post-Matriculation recognized courses in recognized institutions. The scheme covers professional, technical, non-professional and non-technical courses at various levels. It also includes correspondence courses including distance and continuing education and is implemented by the State Government and UT Administrations, covering 100 per cent Central Assistance over and above the committed liability which is required to be borne by them from their own budgetary provisions.

Vocational Training in Tribal Areas : The main aim of this scheme is to develop the skill of the tribal youth in order to gain employment/self employment opportunities. This scheme was introduced in 1992-93 as Central Sector Scheme and implemented through the State Governments/UT Administrations, Institutions or Organisations set up by Government as autonomous body, educational and other institutions like local bodies and cooperative societies and Non-Governmental Organizations. The capacity of each vocational training center is 100 with hostel facility for 50. Each center caters to five vocational courses in traditional skills depending upon the employment potential of the area. Each tribal boy/girl is trained in two trades of his/her choice, the course in each trade being of three months duration. Each trainee is attached at the end of six months to a Master Craftsman in a semi-urban area for a period of six months to learn his/her skill by practical experience, the practical experience in each trade being of three months duration. There is a provision for monthly stipend and for raw material for the trainees.

Education of Girls in Low Literacy Pockets : Launched in 1992-93 the scheme envisages setting up of residential educational complexes for ST girls from I to V standard with facility for upgradation in order to raise the literacy level of tribal females. This scheme is implemented through the voluntary organizations and autonomous bodies of the State Government. During 10th Pan period an amount of ₹ 33.34 crores was released benefitting more than 8000 (appr.) ST Girls each year. An amount of ₹ 33.50 (upto 31.12.2009) crore was released to 76 complexes during 2009-10.

With the beginning of financial year 2009 the scheme has been revised and renamed as 'Strengthening Education among Scheduled Tribes Girls in Low Literacy Districts'. The revised scheme covers 54 identified districts where the ST population is 25 per cent or more, and ST female literacy rate below 35 per cent as per 2001

census. The scheme also covers blocks in districts other than 54 identified districts which have ST population 25 per cent or more, and ST female rate below 35 per cent and PTG areas. Naxal affected areas are given priority and the Ministry provides financial assistance under the scheme for Girls Hostel where schools under "Sarva Shiksha Abhiyan". Kasturba Gandhi Vidhyalayas or other schemes of Education Departments are available. Where such schools are not available, complete complex including hostel and school are considered. Besides free schooling, boarding/lodging, uniforms, books, food cast stipend and incentive to girls students are also provided. In addition, the organization running the educational complex is also required to impart Vocational/Skill development Training among ST girls.

Grants-in-Aid to Voluntary Organisations : The prime objective of the scheme is to enhance the reach of welfare schemes of Government and fills the gaps in service deficient tribal areas in the sectors such as education, health, drinking water, agro-horticultural productivity, social security net etc. through the efforts of voluntary organizations and to provide an environment for socio-economic upliftment and overall development of the Scheduled Tribes (STs). The Ministry gives Grant-in-aid to voluntary organizations working for the welfare of STs for projects like residential schools and non-residential, hostels, hospitals, mobile medical units, computer training centres, libraries and audio-visual units, agriculture training etc. The grant is generally restricted to 90 per cent of the approved total cost of the project and the balance 10 per cent is borne by the guarantee organizations. During the 10th Five Year Plan period ₹ 146.16 crores were released under the scheme. An amount of ₹ 27.80 (upto 31.12.2009) crore was released during 2009-10.

Rajiv Gandhi National Fellowship (RGNF) : The objective of the scheme is to provide fellowship in the form of financial assistance to students belonging to Scheduled Tribes to pursue higher studies. The fellowship under RGNF will be on the pattern of UGC Fellowships awarded to research students pursuing regular and full time M.Phil and Ph.D. Courses.

A sum of ₹ 45.00 Crore was allocated under the Scheme during 2009-10.

National Overseas Scholarship Scheme for Scheduled Tribes (Non-Plan): The Scheme provides for financial assistance to meritorious students for pursuing higher studies abroad in specified fields of Master level courses, Ph.D. and Post-Doctoral research programmes, in the field of Engineering, Technology and Science for Scheduled Tribes, Denotified, Nomadic and Semi-nomadic tribes. The selected candidates are provided the cost of tuition and other educational fees charged by the foreign university, etc., maintenance and other grants along with travel expenses. In addition passage grants are also available to candidates belonging to ST who are in receipt of merit scholarship for postgraduate studies, research or training abroad (excluding attending seminars, workshops, conferences) from a foreign government/organisations or under any other scheme where cost of passage is not provided. The Scheme of NOS has been revised in 2004-05.

The scheme provides financial assistance to meritorious ST students for pursuing higher studies abroad in specified fields of Master level courses, Ph.D. and Post-Doctoral research programmes, in the field of Engineering, Technology and Science.

Scheme of Top Class Education for ST Students

The Ministry of Tribal Affairs has introduced a new scheme of Top Class Education of ST students from 2007-08 with the objective of encouraging meritorious ST students

for pursuing studies at degree and post degree and post degree level in any of the selected list of institutes of excellence, in which the scholarship scheme would be operative. There are 127 top-rated institutes approved under the scheme in both the Government and private sectors covering the field of management, medicine, engineering, law and commercial courses. Each institute has been allocated five awards, with a ceiling of a total of 635 scholarships per year. The family income of the ST students from all the sources shall not exceed ₹ 2.00 lakh per annum.

The ST students will be awarded scholarship covering full tuition fee and other nonrefundable dues in respect of Government/Government-funded institutions. However, there will be a ceiling of ₹ 2.00 lakh per annum per student for private sector institutions and ₹ 3.72 lakh per annum per student for the private sector flying clubs for Commercial Pilot Training. In addition to the above, the scholarship also provides for (i) living expenses @ ₹ 220/- per month per student subject to actual, (ii) books and stationery @ ₹ 3,000/- per annum per student and (iii) cost of a latest computer system along with its accessories limited to ₹ 45,000/- as one time assistance during the course.

Grants-in-Aid for Minor Forest Produce (MFP) Operations: This is a Central Sector Scheme, with 100 per cent grant, available to the State Tribal Development Cooperative Corporations, Forest Development Corporations, and Minor Forest Produce (Trading and Development) Federations for taking up the minor forest produce operations. The funds under the scheme is available to the State TDCCS/FDC's for : (i) increasing the quantum of MFP handled by setting off operational losses, if need be : (ii) strengthening the share capital base of the Corporation for undertaking MFP operations thereby increasing the quantum of MFP presently handled; (iii) setting up of scientific warehousing facilities, wherever necessary; (iv) establishing processing industries for value addition with the objective of ensuring maximum returns on the MFPs for the tribals; (v) giving consumption loans to tribals; and (vi) supplementing Research and Development (R&D) efforts.

Exchange of visits by STs : The Scheme "Exchange of Visits by Tribals" providing wider exposure and experience sharing to the tribals by visits to the more developed areas of the country.

NATIONAL SCHEDULED TRIBES FINANCE AND DEVELOPMENT CORPORATION

With a view to pay a focused attention and accelerate the pace of economic development of Scheduled Tribes, the erstwhile National Scheduled Castes and Scheduled Tribes Financial Development Corporation was bifurcated and National Scheduled Tribes Finance and Development Corporation (NSTFDC) was set up in April, 2001 under the Ministry of Tribal Affairs. The NSTFDC has been granted license under Sec. 25 of the Companies Act (A Company not for profit). The Authorized Share Capital of the NSTFDC is ₹ 500.00 crore and paid up capital is ₹ 230.50 crore as on date.

In order to achieve the mandate set for the NSTFDC, (for undertaking self-employment ventures/activities) financial assistance is extended by NSTFDC to the Scheduled Tribes, who are having annual family income upto double the poverty line. NSTFDC also provides financial assistance as grant for skill and entrepreneurial development of the target group. The financial assistance is channelized through Government owned agencies nominated by the respective Ministries/State Governments and UT Administrations. This is aimed to raise the level of income and improve socio-economic status of the eligible Scheduled Tribes. NSTFDC also provides

financial assistance for procurement and marketing/minor forest produce so as to avoid the distress sale of produce/products by the Scheduled Tribes.

Eligibility criteria for the beneficiary : The beneficiary (ies) should belong to ST community and annual family income of the beneficiary (ies) should not exceed double the poverty line (DPL) income limit (presently DPL is ₹ 39,500/- per annum for the rural areas and ₹ 54,500/- per annum for the urban areas).

In the case of **Self Help Groups (SHGs)**, all the members of the SHG should belong to the ST community having annual family income upto Double the Poverty line (DPL). Similarly for **Cooperative Society**, loan is extended to the eligible STs through co-operative Society having minimum 80 per cent or more STs as member of the said cooperative society.

NSTFDC is implementing following programmes for the economic development of STs.

Term Loan for Income generating activities : i) NSTFDC provides term loan for viable scheme(s)/project(s) costing upto Rs. 10 lakh per individual unit/profit centre.

ii) Financial assistance upto 90 per cent of the cost of the scheme(s)/project(s) is provided by the NSTFDC. Promoter's contribution is not insisted upon for the scheme/project costing upto ₹ 1 lakh. However, only 2-5 per cent of the total cost of the scheme(s)/project(s) costing above ₹ 1 lakh per unit/profit centre is required as promoter's contribution depending upon the cost of unit.

iii) NSTFDC charges concessional rate of interest, which is 3 per cent per annum for the scheme/project having NSTFDC's share upto ₹ 5 lakh per unit/profit centre and 5 per cent for the schemes having NSTFDC's share more than ₹ 5 lakh/unit/profit centre. The SCAs are allowed to charge interest at the rate of 3 per cent per annum over and above the interest rate charged by NSTFDC from the beneficiaries.

iv) The loan is to be repaid in quarterly/half yearly installments, as the case may be, within a maximum period of 10 years including suitable moratorium period.

Bridge Loan : Bridge loan is provided by the NSTFDC against subsidy/capital incentives etc. available for the scheme(s)/project(s) through the SCAs to meet the gap in funding requirement of scheme(s)/project(s) costing upto 10 lakh per unit/profit centre.

Schemes for Self Help Groups (SHGs) : i) NSTFDC has introduced specific scheme for extending financial assistance for Self Help Groups (SHGs) and financial assistance is extended for the scheme(s)/project(s) having unit cost upto ₹ 25 lakh per SHG. ii) Financial assistance is extended upto 90 per cent of the cost of the scheme/project subject to investment per member not exceeding ₹ 50,000/- per unit. iii) Minimum promoter's contribution under the scheme is 10 per cent of the cost of the unit.

Marketing Support Assistance : i) It is provided for financial support for meeting the working capital requirement of the Central/State Government owned agencies and national level federations for undertaking procurement and/or marketing of minor forest produce/agricultural produce collected/grown by the STs and/or related product/services. ii) Marketing Support Assistance extended to the beneficiaries through the SCAs, the interest is at par with rates of interest for long term loan. iii) For Marketing Support Assistance extended to the Central/State/UT owned organizations, national level federations directly involved in procurement, the interest rate is 7 per cent per annum.

Assistance by way of grant : Grant to meet up to 100 per cent recurring cost in respect of regular training programmes conducted for imparting skill and entrepreneurial development training to the eligible STs through the Government/semi Government/autonomous Government bodies is extended by the NSTFDC to its SCAs.

SPECIAL SCHEMES

(a) Adivasi Mahila Sashaktikaran Yojana (AMSY) is an exclusive scheme for the economic development of ST women, at a highly concessional rate of interest. Under the scheme, NSTFDC provides Term Loan for scheme(s)/project(s) costing upto ₹ 50,000/- per individual unit/profit centre. Financial assistance up to 90 per cent of the cost of the scheme(s)/project(s) is provided by the NSTFDC. The SCAs may charge a maximum interest @ 4 per cent per annum from the ultimate women beneficiaries.

(b) Micro-credit scheme-launch of a new scheme : Micro Credit Scheme is meant to provide financial assistance for undertaking small self-employment ventures/activities by the eligible STs through existing profit making SHGs. SCAs shall provide eligible amount of subsidy or margin money as per their scheme(s) for the target group and remaining amount may be provided as term loan by NSTFDC. In case of no subsidy and or no share of SCAs/banks as SCAs. NSTFDC may provide 100 per cent of the funds required as term loan subject to maximum of Rs. 15,000/- per member.

Performance of NSTFDC during 2009-10 : The NSTFDC has notionally allocated ₹ 150.00 crore for sanction of schemes/projects. During the year, as on 31.12.2009, the Corporation has sanctioned 178 number of schemes under income generating activities having its share of ₹ 119.10 crore for economic uplift of 32541 number of beneficiaries under AMSY and ₹ 4.81 crores for 9163 number of beneficiaries under during the year, as on 31.12. 2009, the sanction of grant, for skill and entrepreneurship development programme of NSTFDC is ₹ 17.64 lakhs. In order to increase the level of operations, the SCAs have been requested to forward suitable proposals under training programme. The cumulative recovery percentage is 80.04 per cent as on 12 January 2010.

TRIBAL COOPERATIVE MARKETING DEVELOPMENT FEDERATION OF INDIA LTD. (TRIFED)

The Tribal Cooperative Marketing Development Federation of India Limited (TRIFED), was set up in 1987 as a national level apex body under the Multi State Cooperative Societies Act, 1984 (MSCS Act, 1984).

After the enactment of the Multi-State Cooperative Societies Act, 2002 (MSCS Act, 2002) TRIFED is deemed to be registered under the latter Act and is also listed in the Second Schedule to the Act as a National Cooperative Society.

The Bye-laws of TRIFED were revised in April 2003 in tune with the new Multi State Co-operative Societies Act, 2002 read with the Multi State Co-operative Societies Rules, 2002. Under its revised mandate TRIFED has stopped bulk procurement in Minor Forest Produce (MFP) and Surplus Agricultural Produce (SAP) from tribals. (This procurement is now done by the State-level Tribal Cooperatives Societies/Federations). TRIFED now functions as a 'market developer' for tribal products and as 'service provider' to its member federations. This way TRIFED is now striving to provide economic benefits to a large number of this unorganized section of the society.

TRIFED is now engaged in the marketing development of tribal products (natural

and organic products, handicrafts, ratification etc.) through its own shops ('TRIBES India') and shops selling its products on consignment basis.

Recognition of Forest Rights of STs: The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 seeks to recognize and vest the forest rights and occupation in forest land in forest dwelling Scheduled Tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights on ancestral lands and their habitat were not adequately recognized in the consolidation of State forests during the colonial period as well as in independent India resulting in historical injustice to them. The Act has been notified for operation with effect from 31 December 2007.

2. The Scheduled Tribe and Other Traditional Forest Dwellers (Recognition of Forest Rights) Rules, for implementing the provisions of the Act, were notified on 1.1.2008 and they envisage the constitution of various Committees under the Act, viz, the Sub Divisional Level Committee, District Level Committee and the State Level Monitoring Committee, by the State Governments.
3. All the States have been requested to nominate the nodal officer for implementing the provisions of the Act. The State Government were also requested to take necessary steps to :-
 - a) ensure that awareness is created about the objectives, provisions and procedures of the Act and the Rules through various measures including awareness programmes and printed material such as posters in the regional languages;
 - b) ensure the translation and publication of the Act and the rules in all the regional languages and arrange to distribute to all Gram Sabhas, Forest Right Committees and all departments of the Government including Panchayati Raj, Rural Development, Tribal and Social Welfare and Forest Departments;
 - c) undertake the orientation of officials, civilian representatives and non-Government organizations in the State, who can then be called upon to assist as resource persons in the awareness programmes;
 - d) sensitize the Sub-Divisional and District Level Committees on the objectives, provisions and procedures of the Act and the Rules:
4. As per the Act, the responsibility for recognition and vesting of forest rights and distribution of land rights resets with the State Government, as per the Rules notified for implementation of the Act. All the State Governments have been directed that the entire process of vesting of forest rights as per the Scheduled Tribes and Other Traditional forest Dwellers (Recognition of Forest Rights) Act, 2006 should be completed at the earliest.
5. Web-based MIS for online monitoring of the implementation of the Act has been made operational with effect from 4th June, 2008 for testing purposes on website <http://www.tribal.gov.in>. However, final website would be which is at present under process of getting security-audit clearance.

WELFARE OF OTHER BACKWARD CLASSES

The Other Backward Classes (OBC) constitutes estimated 52 per cent of population as per Second Report of Backward Classes popularly known as Mandal Report. After

the Mandal Judgement in 1992 the OBCs started getting various benefits for their educational development, economic development and reservation in services.

STATUTORY BODY

National Commission for Backward Classes : In pursuance of the Supreme Court Judgement popularly known as Mandal Judgement (1992), the National Commission for Backward Classes was set up in 1993 as a permanent body for entertaining, examining and advising the Government on requests for inclusion and complaints of over-inclusion and under inclusion in the lists of Other Backward Classes (OBCs) of citizens. As per the provision of the Act, the advice tendered by the Commission shall ordinarily be binding upon the Government.

EDUCATIONAL DEVELOPMENT

Pre-matric Scholarships for OBCs : The Scholarships are awarded to the students belonging to OBCs whose parents'/guardians' income from all sources does not exceed ₹ 44,500 per annum. The scholarships are given to the students in class I or any subsequent class of pre-matric stage in the case of day scholars and class III or any subsequent class of pre-matric stage in the case of hostellers. The scholarship will terminate at the end of class X. The duration of the scholarship in an academic year is 10 months. The scholarship is tenable in such institutions and for such pre-matriculation courses, which have been duly recognised by the concerned State Government and Union Territory Administration. Under the scheme, 50 per cent Central assistance is provided to the State Governments and 100 per cent in case of UTs over and above the committed liability. An amount of ₹ 30 crores was released under the scheme to 12 states during 2009-10 for covering 9.00 (approx.) beneficiaries (upto 31.12.2009).

Post-Matric Scholarships for OBCs : The objective of the scheme is to provide financial assistance to the OBC students studying at post-matriculation or post secondary stage to enable them to complete their education. These scholarships are available for studies in India only and awarded through the State Governments/UT Administrations to which the applicant actually belongs. These scholarships are given for study in recognised institutions. Unemployed students whose parents'/guardians income from all sources does not exceed Rs. 44,500 per annum are entitled for scholarships under the scheme. Under the Scheme, 100 per cent Central assistance is provided to State Governments/UT Administrations over and above the committed liability. An amount of ₹ 135 crores was released under the scheme to 16 states/UTs for covering 8.00 (approx.) beneficiaries during the year 2009-10 (upto 31.12.2009).

Hostels for OBC Boys and Girls : The scheme aims at providing better educational opportunities to students belonging to socially and educationally backward classes notified as such in the Central/State/UT lists of OBCs, generally referred to as Other Backward Classes (OBCs). Under the scheme, 50 per cent Central assistance is provided to the States and 100 per cent to UTs for constructions of hostels. These hostels are constructed for middle, secondary, college and university level students. The expenditure on procurement of land, staffing and other maintenance shall be borne by the State Governments/UT concerned. During 2009-10 an amount of ₹ 35 crore was released to 11 States/UTs for construction of 17 (upto December 2009) hostels and for covering 1050 seats.

Assistance to Voluntary Organisations for Welfare of OBCs : The objective of the scheme is to involve the voluntary sector for improving the educational and socio-economic conditions of the OBCs through skill upgradation and enables them to start income generating activities on their own or get gainfully employed. Under the Scheme, 90 per cent of approved expenditure in form of grant-in-aid is given to NGOs for running vocational training courses such as carpentry, computer, craft, electrician, motor winding and fitting, photography, printing, composing and bookbinding, type and shorthand and welding and fitter training, etc. An amount of ₹ 5.00 crore was released in 2009-10 (upto 31.12.2009).

ECONOMIC DEVELOPMENT

National Backward Classes Finance and Development Corporation : The National Backward Classes Finance and Development Corporation (NBCFDC) provides credit facilities to beneficiaries whose annual income is less than double the poverty line for various income generation activities including implementation of Mahila Samridhi Yojana. The corporation extended credit facilities to 1,32,108 beneficiaries.

RESERVATION IN SERVICES

Reservation is given to Scheduled Castes (SCs), Scheduled Tribes (STs) and Other Backward Classes (OBCs) in services under the control of Government. Reservation is also provided to persons with disabilities and the ex-servicemen in certain categories of posts. The quantum of reservation for SCs, STs, and OBCs in direct recruitment on all-India basis by open competition is 15 per cent, 7.5 per cent and 27 per cent respectively. In direct recruitment on all-India basis otherwise than by open competition, reservation is 16.66 per cent for SCs, 7.5 per cent for STs and 25.84 per cent for OBCs. In case of promotion SCs and STs get reservation at the rate of 15 per cent and 7.5 per cent respectively. There is no reservation for OBCs in case of promotion. Three per cent of vacancies are kept reserved for persons with disabilities. Ten per cent of the vacancies in the posts of the level of Assistant Commandant in all paramilitary forces, 10 per cent of the vacancies in Group-C posts and 20 per cent of the vacancies in Group-D posts are reserved for the ex-servicemen.

Article 341 and 342 of the Constitution define as to who would be the SCs and the STs with respect of any State or Union Territory. The Government has prepared a list of OBCs has been prepared by the Government. The inter-state area restrictions have been imposed so that the people belonging to the specific community residing in a specific area which has been assessed to qualify for SC, ST and OBC status only benefit from the facilities provided for them. Definition of 'ex-servicemen' for the purpose of getting reservation in services is contained in Ex-servicemen (Re-employment in Civil Services and Posts) Rules, 1979 and conditions for reservation to persons with disabilities are given under the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995.

To ensure that reserved vacancies are filled by candidates belonging to appropriate category, certain relaxations and concessions like relaxation in upper age-limit, etc., are provided. Liaison officers have been appointed for SCs/STs and OBCs in each Ministry/Department to ensure proper implementation of reservation policy for them.

The representation of SCs/STs and OBCs in Central Government services as on 1 January 2005 is given below:

Group	Total	SCs	%	STs	%	OBCs	%
A	80,589	9,551	11.9	3,448	4.3	3,791	4.7
B	1,39,958	19,194	13.7	6,230	4.5	3,252	2.3
C	20,36,103	3,33,708	16.4	1,31,678	6.5	1,19,968	5.9
D	7,67,224	1,40,469	18.3	55,032	6.9	32,973	4.3
(Excluding Sweepers)							
Sweepers	8,1174	48,067	59.2	4,012	4.9	1,834	2.3
Total	30,23,874	5,02,922	16.63	1,94,388	6.43	1,59,984	5.29
(Excluding Sweepers)							
Total	31,05,048	5,50,989	17.74	1,98,400	6.39	1,61,818	5.21
(Including Sweepers)							

Note : This does not include information in respect of two Ministries.

The Scheme of reservation is being followed by public sector undertakings including nationalised public sector banks. State governments have also provided for reservation of posts for SCs, STs and OBCs, etc., and have taken steps to increase their representation in State services. Reservation in State government services, however, is under the exclusive jurisdiction of respective State Governments.

WELFARE OF PERSONS WITH DISABILITIES

For the marginalised sections of the society National Policy for Persons with Disabilities has been finalised in 2005. The policy focuses on the prevention of disabilities, the physical and economic rehabilitation measures for disabled persons. The policy is to be implemented by Government and other agencies. Various steps had also been taken in the past for welfare and rehabilitation of persons with disabilities.

Persons with Disabilities Act, 1995

A comprehensive law, namely, the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 has been enacted and enforced in February 1996. The law deals with both prevention and promotion aspects of the rehabilitation such as education, employment and vocational training, creation of barrier-free environment, provision of rehabilitation services for persons with disabilities, institutional services and supportive social security measures like unemployment allowance and grievance redressal machinery both at the Central and State-Level.

National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities: The National Trust is a statutory body under "The National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act, 1999". The main objectives of the Trust are to enable and empower persons with these disabilities to live independently as fully as possible, to extend support to registered organisations providing need-based

services and to evolve procedure for appointment of legal guardians for persons with disabilities requiring such protection.

Office of the Chief Commissioner for Persons with Disabilities : The Chief Commissioner is an important statutory functionary, appointed under Section 57 of the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995. The functions and duties of the Chief Commissioner include coordinating the work of State Commissioners for persons with disabilities, monitoring of utilisation of funds disbursed by the Central Government, taking steps to safeguard rights and facilities made available to persons with disabilities and also to look into complaints with respect to deprivation of rights of persons with disabilities.

The Chief Commissioner can also take *suo motu* notice of non-implementation of any Rule, Law, etc, meant for persons with disabilities and is vested with the powers of a civil court relating to summoning of witness, discovery, requisitioning and production of any document, etc.

Rehabilitation Council of India

The Rehabilitation Council of India is a statutory body set up under the Rehabilitation Council of India Act, 1992. The Council is responsible for regulating the training policies and programmes for various categories of professionals in the area of rehabilitation and special education. Its functions include: (i) standardisation and regulation of training courses at different levels in all the training institutions throughout the country, (ii) recognition of institutions/universities running training courses in the area of rehabilitation of the disabled within and outside the country on a reciprocal basis, (iii) promotion of research in rehabilitation and special education, (iv) maintenance of a Central Rehabilitation Register for professionals possessing the recognised rehabilitation qualifications in the area of rehabilitation and (v) encouragement of Continuing Rehabilitation Education programmes in collaboration with organisations working in the area of disability.

National Institutes

In order to effectively deal with the multi-dimensional problem of the disabled population, the following National Institutes/apex level Institutes have been set-up in each major area of disability; (i) National Institute for the Visually Handicapped, Dehradun, (ii) National Institute for Orthopedically Handicapped, Kolkata, (iii) Ali Yavar Jung National Institute for the Hearing Handicapped, Mumbai, (iv) National Institute for the Mentally Handicapped, Secunderabad, (v) National Institute of Rehabilitation Training and Research, Cuttack, (vi) Institute for the Physically Handicapped, New Delhi, (vii) National Institute for Empowerment of Persons with Multiple Disabilities, Chennai. These institutes are mainly responsible for conducting innovative researches, organise training programmes for manpower development and deliver services in the country.

Artificial Limbs Manufacturing Corporation of India : The Artificial Limbs Manufacturing Corporation of India (ALIMCO), Kanpur is a public sector body, engaged in manufacturing of aids and appliances for persons with disabilities. The products manufactured by the Corporation conform to ISI standards approved by the Bureau of Indian Standards. Marketing of products is done through Regional Marketing Centres at Kolkata, Mumbai, Chennai, Bhubaneswar and Delhi and also through National Institutes, voluntary organisations, 65 the corporation has manufactured aids and appliances.

Composite Regional Centres and Regional Rehabilitation Centre : Five Composite Regional Centres (CRCs) for the Persons with Disabilities are located at Srinagar, Lucknow, Bhopal, Sundernagar and Guwahati. These centres conduct training programmes to prepare professionals in the field of rehabilitation as well as provide rehabilitation services to the disabled. Four Regional Rehabilitation Centres for Spinal Injuries and other Orthopaedic Disabilities at Mohali, Cuttack, Jabalpur and Bareilly are providing services for basic management and follow-up of the spinally injured so as to make the affected persons functionally independent.

ECONOMIC DEVELOPMENT

National Handicapped Finance and Development Corporation : The National Handicapped Finance and Development Corporation (NHFD) is an apex-level financial institution for extending credit facilities to persons with disabilities for their economic development. Funds assistance is disbursed through the channelising agencies authorized by the State Governments/UT Administrations and Non-Government Organisations. It also extends loans for pursuing education at graduate and higher levels. Besides, it assists in the upgradation of technical and entrepreneurial skills to enable beneficiaries to manage their production units efficiently.

Scheme for Assistance to Disabled Persons for Purchase/Fitting of AIDs and Appliances : The objective of the Scheme is to assist needy and disabled persons in procuring durable, sophisticated and scientifically manufactured, standard aids and appliances that can promote their physical, social and psychological rehabilitation by reducing the impact of disability and enhancing their economic potential. The scheme is implemented through agencies like voluntary organisations, National Institutes under the Ministry, ALIMCO, Zila Panchayats, DRDAs, etc. The implementing agencies are provided grant-in-aid for purchase, fabrication and distribution of aids and appliances. The scheme also includes under its ambit medical/surgical correction and intervention that may be essential prior to fitting of aids and appliances.

SOCIAL DEFENCE

In the areas of Social Defence the Ministry is committed towards welfare of Older Persons and rehabilitation of Drug Addicts. The programmes for the targeted groups are as follows :

National Policy for Older Persons : The National Policy for Older Persons (NPOP) was announced in January 1999, with the primary objective viz., to encourage individuals to make provision for their own as well as their spouse's old age; to encourage families to take care of their older family members; to enable and support voluntary and non-governmental organisations to supplement the care provided by the family; to provide care and protection to the vulnerable elderly people, to provide health care facility to the elderly; to promote research and training facilities to train geriatric care givers and organisers of services for the elderly; and to create awareness regarding elderly persons to develop themselves into fully independent citizens.

National Council for Older Persons (NCOP) : The Government has re-constituted a National Council for Older Persons (NCOP) to advise and aid the Government on developing policies and programmes for older persons. It provides feedback to the Government on the implementation of the National Policy on Older Persons and the specific initiatives for older persons. The NCOP is the highest body to advise and

coordinate with the Government in the formulation and implementation of policy and programmes for the welfare of the aged.

Integrated Programme for Older Persons : Under this scheme, financial assistance upto 90 per cent of the project cost is provided to NGOs for establishing and maintaining old age homes, day care centers, Mobile Medicare Units and to provide non-institutional services to older persons.

Prevention and Rehabilitation of Drug Addicts/Alcoholics : Under the Scheme, grant-in-aid to the extent of 90 per cent (95 per cent in North East States, J & K and Sikkim) of the expenditure is provided to voluntary organisations for rehabilitation of drug addicts and alcoholics.

Assistance to Voluntary Organisation for Social Defence Services : It provides for undertaking programmes for the rehabilitation of various social segments at risk not currently covered under the existing schemes of the Ministry. In particular the scheme provides for Pilot Projects in unchartered areas in which the Ministry may like to formulate independent programmes in due course. A number of programmes are being supported for rehabilitation of children of sex workers. Initiatives have also been taken to support projects for rehabilitation of widows and for providing counselling and support to traumatised children and women particularly those who have been victims of physical violence and sexual abuse.

WELFARE MEASURE FOR THE MINORITIES

Five religious communities viz Muslims, Christians, Sikhs, Buddhists and Zoroastrians (Parsis) have been notified as minorities as per provision under the National Commission for Minorities (NCM) Act-1992. These five communities constitute about 18.47 per cent of the country's population. The Government has taken the following measures for welfare of Minorities:

The Ministry of Minority Affairs was created on 29th January, 2006 to ensure a focused approach to the issues relating to the minorities and to play a pivotal role in the overall policy planning coordination evaluation and review of the regulatory and development programme for the benefit programme of the minorities communities. The Ministry is also responsible for the administration and implementation of the (i) National Commission for Minorities Act, 1992; (ii) Wakf Act, 1995 and (iii) Durgah Khwaja Saheb Act, 1955.

In a short period of time, not only has the Ministry been made fully functional but concerted efforts have been made to streamline the ongoing programmes/schemes and to launch innovative and effective schemes/programmes for the welfare of minorities communities. The details/developments pertaining to scheme run by the Ministry as well as its subordinate organizations are as under :

Prime Minister's New 15-Point Programme for the Welfare of Minorities : The Prime Minister's New 15-Point Programme for the Welfare of Minorities was announced in June, 2006. The objectives of the programme are: (a) Enhancing opportunities for education, (b) Ensuring an equitable share for minorities in economic activities and employment, through existing and new schemes, enhanced credit support for self-employment and recruitment to State and Central Government jobs, (c) Improving the conditions of living of minorities by ensuring an appropriate share for them in infrastructure development schemes, (d) Prevention and control of communal disharmony and violence. An important aim of the new programme is to ensure that the benefits of various government schemes for the underprivileged reach

the disadvantaged sections of the minority communities. In order to ensure that the benefits of these schemes flow equitably to the minorities, the new programme envisages location of a certain proportion of development projects in minority concentration areas. It also provides that, wherever possible, 15 per cent of physical targets and financial outlays under various schemes should be marked for minorities.

Some of the notable achievements are given below :-

Exclusive scholarship schemes for students belonging to the minorities communities: Three Centrally sponsored scholarship schemes for students belonging to the minority communities have been launched. To ensure that girl students get a fair share, all three schemes have 30 per cent scholarship earmarked for them. These schemes are :

(i) **Merit-cum-Means scholarship** is a scheme fully funded by the Central Government. Every year 20,000 new scholarships are to be awarded for technical and professional courses at under graduate and post graduate levels. 70 institutes have been listed in the scheme and student enrolled in these institutes are entitled for reimbursement of course fee upto a maximum amount of ₹ 20,000 per annum. 31,911 scholarships were sanctioned in 2009-10 (upto December 2009).

(ii) **Post-Matric Scholarships** is a scheme fully funded by the Central Government. This scholarship is awarded to students belonging to the minority communities studying in class-XI up to Ph.D. level and it also includes technical and vocational courses of class XI and XII. Fees ranging from ₹ 3,000 to ₹ 10,000 per annum are reimbursed to students. 2.64 lakh scholarships were sanctioned upto December 2009.

(iii) **Pre-Matric Scholarship** is being implemented on a sharing basis between the Centre and States in the ratio of 75:25 for students in class-I to class-X. Fees upto ₹ 4700 per annum will be reimbursed to students under this scheme. Advertisements have been issued by both the Central and State Governments seeking applications. 12.11 lakh scholarships were awarded in 2008-09 (upto end of December 2009).

Identification of Minority Concentration Districts: 90 minority concentration districts (MCD) have been identified, based on the population data of 2001 census and relevant backwardness parameters. A multi-sectoral development programme, designed to address the 'development deficits', specially in education, employment, sanitation, housing, drinking water and electricity supply has been launched from 2008-09. Baseline survey to identify 'development deficits' has been carried out by the regional research institutes affiliated to the Indian Council of Social Science Research, New Delhi. The budgetary provision for 2008-09 is ₹ 540 crore. Multi sectoral development plans of 8 minority concentration districts have already been approved.

Free Coaching and Allied Scheme has been launched in July, 2007 with a view to improving the representation of minorities in government service and public sector undertakings and also to cater to the emerging trends of the job market. During the year 2009-10 (upto December 2009) an amount of ₹ 27.17 crore was released to 38 institutes in 18 States/UTs benefiting 4657 Students. The budgetary provision for 2008-09 is ₹ 10.00 crore.

Initiatives taken in Pursuance of the Sachar Committee Recommendations

The Government took decision on the recommendations of High Level Committee on Social, Economic and Educational status of the Muslim Community of India, pertaining to various Ministries/Departments. The decisions of the Government on

the follow-up action on the major recommendations of the Sachar Committee and the Ministry-wise status of implementation are as under:

- (i) All public sector banks have been directed to open more branches in districts having a substantial minority population. In 2007-08, 523 branches were opened in such districts. In 2008-09, 537 new branches were opened. The target for 2009-10 is 500 and up to the end of third quarter, 502 new branches have been opened (Department of Financial Services).
- (ii) RBI revised its Master Circular on 5th July, 2007 on priority sector lending for improving credit facilities to minority communities. Over ₹ 82000 crore were provided to minorities under priority sector lending during 2008-09 (Department of Financial Services).
- (iii) District Consultative Committees (DCCs) of lead banks have been directed to regularly monitor disposal and rejection of loan applications for minorities. (Department of Financial Services).
- (iv) A multi-pronged strategy to address the educational backwardness of the Muslim community, as brought out by the Sachar Committee, has been adopted, as follows (Ministry of Human Resource Development):
 - a) The Madaras Modernization Programme has been revised to make it more attractive by providing better salary to teachers, increased assistance for books, teaching aids and computers, and introduction of vocational subjects, etc. This is now known as Scheme for Providing Quality Education in Madaras and has been launched with allocation of ₹ 325 crore during the Eleventh Five-Year Plan.
 - b) A new centrally sponsored scheme of financial assistance for Infrastructure Development of Privately Managed Elementary/Secondary/Senior Secondary schools set up for minorities has been launched with allocation of ₹ 125 crores for the Eleventh Five-Year Plan.
 - c) National Council of Educational Research and Training (NCERT) has prepared text books for all classes in the light of the National Curriculum Framework-2005.
 - d) Thirty five universities have started centers for studying social exclusion and inclusive policy for minorities and Scheduled Castes and Scheduled Tribes.
 - e) Under the Kasturba Gandhi Balika Vidyalaya (KGBV) Scheme, criteria of educational backward blocks has been revised with effect from 1st April 2008 to cover blocks with less than 30 per cent rural female literacy and in urban areas with less than national average of female literacy (53.67 per cent Census 2001).
 - f) Universalization of access to quality education at secondary stage called Rashtriya Madhyamik Shiksha Abhiyan (RSMA) has been approved with focus on educationally backward minorities.
 - g) Jan Shikshan Sansthan (JSSs) are envisaged in the revised schemes.
 - h) Provision of more girls' hostels in colleges and universities in minority concentration districts/blocks is proposed under the existing University Grants Commission scheme.

- (v) An expert group constituted to study and recommend the structure and functions of an Equal Opportunity Commission submitted its report on 13th March, 2008. This has been processed, along with the report of the expert group on diversity index. (Ministry of Minority Affairs)
- (vi) A National Data Bank to compile data on the various socio-economic and basic amenities parameters for socio-religious communities has been set up in the Ministry of Statistics and Programme Implementation.
- (vii) An autonomous Assessment and Monitoring Authority (AMA), to analyse data collected for taking appropriate and corrective policy decisions, has been set up in the Planning Commission.
- (viii) A training module has been developed by the Indian Institute of Public Administration, for sensitization of government officials. The module has been sent to the Central/State Training Institutes for implementation. Lal Bahadur Shastri National Academy of Administration (LBSNAA) has prepared a module for sensitization of organized civil services and it has been incorporated in their training programme (Department of Personnel and Training).
- (ix) Under Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT), additional central assistance of ₹ 1602.20 crore has been sanctioned for 69 towns having substantial minority population, out of which ₹ 659.37 crore was released in 2008-09 (Ministry of Urban Development).
- (x) A Bill has been passed by the Parliament for providing social security to workers in the un-organized sector, which *inter-alia*, includes home-based workers (Ministry of Labour and Employment).
- (xi) A High Level Committee, set up to review the Delimitation Act, has considered the concerns expressed in the Sachar Committee report and submitted its report (Ministry of Home Affairs).
- (xii) Dissemination of information regarding health and family welfare schemes is being undertaken in regional languages in minority concentration areas (Ministry of Health and Family Welfare).
- (xiii) Guidelines on Communal Harmony have been issued (Ministry of Home Affairs).
- (xiv) State Governments and Union Territory Administrations have been advised by Department of Personnel and Training for posting of Muslim police personnel in than as and Muslim health personnel and teachers in Muslim concentration areas.
- (xv) State Governments have been advised by Ministry of Panchayati Raj and Ministry of Urban Development, to improve representation of minorities in local bodies.
- (xvi) The recommendations of the Joint Parliamentary Committee (JPC) on Waqf have been received. These have been processed as per approved modalities (Ministry of Minority Affairs).
- (xvii) The Government has accorded in principle approval for restructuring of National Minorities Development and Finance Corporation (Ministry of Minority Affairs)

- (xviii) An Inter-ministerial Task Force constituted to devise an appropriate strategy and action plan for developing 338 identified towns, having substantial minority population, rapidly in a holistic manner submitted its report on 8th November, 2007. The concerned Ministries/Departments have been advised to give priority in the implementation of their schemes in 338 towns (Ministry of Minority Affairs).
- (xix) Three scholarship schemes for minority communities viz., Pre-matric, Post-matric and Merit-cum-means were launched and 7.09 lakh scholarships were awarded to students belonging to minority communities in 2008-09 and 15.15 lakh scholarships upto 31st December, 2009 in 2009-10 (Ministry of Minority Affairs).
- (xx) The corpus of Maulano Azad Education Foundation, which stood at ₹ 100 crores, was doubled to ₹ 200 crores in December, 2006. The corpus was increased by ₹ 50 crores in 2007-08 and by ₹ 60 crore in 2008-09. It has been further increased by ₹ 115 crore during 2009-10 and now stands of ₹ 425.00 crore (Ministry of Minority Affairs).
- (xxi) A revised free Coaching and Allied Scheme was launched and 5522 candidates belonging to minority communities were provided assistance in 2008-09 and 4657 candidates upto 31st December, 2009 in 2009-10 (Ministry of Minority Affairs)
- (xxii) A Multi-sectoral Development Programme was launched in identified minority concentration districts in 2008-09. Plans of 76 minority concentration districts in Haryana, Uttar Pradesh, West Bengal, Assam, Manipur, Bihar, Meghalaya, Jharkhand, Andaman and Nicobar Islands, Orissa, Maharashtra, Karnataka, Kerala, Uttrakhand, Mizoram and Jammu and Kashmir have been approved and ₹ 784 crore released upto 31st December, 2009 since inception (Ministry of Minority Affairs).

National Commission for Minorities

The Minorities Commission which was set up in January 1978 by a Resolution issued by Ministry of Home Affairs became a statutory body with the enactment of the National Commission for Minorities Act, 1992 and renamed as The National Commission for Minorities. The first statutory National Commission was set up on 17th May, 1993. The NCM Act, 1992 underwent an amendment on 8th September, 1995. The amendment was carried out in Section a2(b) and 3(2) of the Act, providing for a Vice Chairperson in the Commission. With the 1995 amendment to the Act, the Commission's composition was expanded to 7 members (including a Chairperson and a Vice Chairperson). The provision under Section 3(2) of the Act stipulates that 5 members including the Chairpersons shall be from amongst the minority communities. As per Gazette notification issued on 23rd October 1993 by the Ministry of Welfare, the National Commission for Minorities has submitted fourteen Annual Reports for the years 1992-93 to 2006-07.

State Commission for Minorities

Thirteen State Governments namely Andhra Pradesh, Assam, Bihar, Chhatisgarh, Government of NCT of Delhi, Jharkhand, Karnataka, Maharashtra, Madhya Pradesh, Rajasthan, Uttar Pradesh, Tamil Nadu and West Bengal have set up statutory commissions for minorities. Manipur and Uttarakhand have set up non-statutory Commissions.

National Commission for Religious and Linguistic Minorities

The Government of India has been seized of the welfare needs of socially and economically backward sections among religious and linguistic minorities. For having a detailed examination to determine the criteria for identifications of socially and economically backward sections among religious and linguistic minorities and to suggest measures for their welfare, the Government has constituted a National Commission for Religious and Linguistic Minorities, with the following terms of reference: (a) to suggest criteria for identification of socially and economically backward sections among religious and linguistic minorities; (b) to recommend measures for welfare of socially and economically backward sections among religious and linguistic minorities, including reservation in education and government employment; (c) to suggest the necessary constitutional, legal and administrative modalities, as required for the implementation of their recommendations; and to present a Report of their deliberations and recommendations.

The Commission has started functioning since 21 March 2005. So far, 44 reports of the Commission have been laid in Parliament.

Special Officer for Linguistic Minorities : The Office of the Special Officer for Linguistic Minorities (commonly known as the Commissioner for Linguistic Minorities) was created in July 1957, in pursuance of the provision of Article 350-B of the Constitution. The Commissioner for Linguistic Minorities of India (CLM) has his Headquarters at Allahabad with Regional Offices at Kolkata, Belguam and Chennai. The CLM takes up all the matters pertaining to the grievances arising out of the non-implementation of the Constitutional and Nationally Agreed Scheme of Safeguards provided to linguistic minorities that come to its notice or are brought to its knowledge by the linguistic minority individuals, groups, associations or organisations at the highest political and administrative levels of the State Governments and UT Administrations and recommends remedial actions to be taken.

THE CENTRAL WAKF COUNCIL

A Wakf is a permanent dedication of movable or immovable properties for purposes recognised by the Muslim Law as religious, pious or charitable. Apart from these religious aspects, the Wakfs are also instruments of social and economic upliftment. Administration of Central Legislation for Wakfs is the responsibility of the Ministry of Social Justice and Empowerment. For the purpose of advising it on matters relating to working of the Wakf Boards and the proper administration of Wakfs in the country, the Central Wakf Council was established as a statutory body by the Central Government in December, 1964 under Section 8A of the Wakf Act, 1954 (now read as Sub-Sec(1) of the Section 9 of Wakf Act, 1995). The present Council has been reconstituted on 18 March 2005. The Union Minister in charge of Wakf is the Chairperson of the Central Wakf Council. The Central Wakf Council is also playing a vital role in the development of the society by way of implementing the following schemes: (i) Development of Urban Wakf Properties; (ii) Educational Development Programmes.

The Durgah Khwaja Saheb Act, 1955

It is an Act to make provision for the proper administration of Durgah and Endowment of the Durgah Khwaja Moinuddin Chishty (R.A.) Under this Central Act the administration, control and management of the Durgah Endowment has been vested

in a representative Committee known as the Durgah Committee appointed by the Central Government.

The Durgah of Khwaja Moin-ud-din Chishti at Ajmer in Rajasthan is a Waqf of international fame. The Durgah is being administered under the Durgah Khwaja Saheb Act, 1955. The administration, control and management of the Durgah Endowment vests in the Durgah Committee.

Annual Urs June 2009 and Mani Urs (Muharram) December 2009 (in which around 7 lakh pilgrims participated) were arranged successfully. Infrastructural arrangements were made by the Durgah Committee, the Government of Rajasthan and the district administration, Ajmer. Apart from this, Urs of "Bade Sarkar" was also held with all amenities to the pilgrims.

With the help of the Government of India, Ministry of Urban Development (JNNURM) and active involvement of the Government of Rajasthan through local administration, the Durgah Committee is implementing a scheme of providing lodging facilities for lakhs of pilgrims who visit the holy Durgah during the annual Urs. The facility was earlier named as "Vishram Sthali" and has been renamed as "Gharib Nawaz Mehmankhana". The infrastructure is meant to provide facilities/amenities to the zaireen of Durgah Khwaja Sahab.

The Governments have also evinced interest in developing their State Pavilion Blocks for the pilgrims. The project envisages lodging arrangements for around one lakh pilgrims and parking facility for 6000 buses/vehicles. The estimated capital outlay for this project is around ₹ 136 crore of which the infrastructure/buildings for ₹ 10 crore have already been completed.

ECONOMIC DEVELOPMENT

National Minorities Development and Finance Corporation : National Minorities Development and Finance Corporation (NMDFC) provides concessional finance for self-employment activities to eligible beneficiaries belonging to minority communities having family income below double the poverty line. The authorised share capital of the corporation has been enhanced from ₹ 500 crore to ₹ 650 crore. During the current financial year till 31 December 2009 a consolidated amount of ₹ 117.87 crores has been disbursed for assisting 53,852 beneficiaries.

EDUCATIONAL DEVELOPMENT

Maulana Azad Education Foundation : Maulana Azad Education Foundation is a registered society with the objective of promoting education amongst the educationally backward sections of the society, and minorities in particular. The Government of India provides corpus fund to the Foundation. Keeping in view the overwhelming response to the educational schemes of the Foundation from all over the country, the corpus fund which stood at ₹ 100 crore in the year 2006-07 now in 2009-10 stands at ₹ 425 crore.

In 2009-10 upto 31st December 2009, Foundation has sanctioned grants initial to 77 Nos. amounting to ₹ 10.55 crore throughout the country. During 2009-10 scholarship to 15,000 meritorious girl students will be distributed.

WOMEN AND CHILD DEVELOPMENT

Women and Children (0-18 years) constitute roughly 71.14 per cent of the Indian population as per 2001 census, while women (including female child 0-18 years)

constitute 48 per cent of total population. The development of women and children is of paramount importance and sets the pace for overall development. Since 1985, there was a separate Department of Women and Child Development functioning as a part of Ministry of Human Resources Development to look into matters related to Women and Children. Keeping in view its importance, a separate Ministry of Women and Child Development came into existence from 30th January 2006. All subjects relating to Child Welfare/Protection like the Juvenile Justice (Care and Protection of Children) Act 2000, Central Adoption Resource Agency (CARA) and Adoption which were earlier under Ministry of Social Justice and Empowerment have been transferred to the newly created Ministry of Women and Child Development.

Vision and Mission of the Ministry

The **Vision** of Ministry of Women and Child Development is to have empowered women living with dignity and contributing as equal partners towards the development of the country in an environment free from violence and well nurtured children with full opportunities for their growth and development in an environment free from exploitation. In pursuance of the vision, the **Mission** of the Ministry of Women and Child Development is to : (i) promote social and economic empowerment of women through cross-cutting policies and programmes, mainstream gender concerns, create awareness about their rights and facilitate institutional and legislative support for enabling them to develop to their full potential; (ii) ensure holistic development and protection of children through cross-cutting policies and programmes, spread awareness about their rights, facilitate access to learning and supplementary nutrition for targeted groups and institutional and legislative support for enabling them to grow and develop to their full potential.

Schemes for Women

The Ministry is implementing the following schemes for women :

Economic Empowerment Schemes

STEP : Support to Training and Employment Programme for Women (STEP) was launched as a Central Sector Scheme in 1987. It has made a significant impact on women in traditional sectors by upgrading skills and by mobilizing them into viable groups, arranging for marketing linkages, support services and access to credit. The Scheme covers traditional sectors of employment such as Agriculture, Animal Husbandry, Dairying, Fisheries, Handlooms, Handicrafts, Khadi and Village Industries and Sericulture. The Scheme is being implemented through Public Sector Organisations, State Corporations, DRDAs, Cooperatives, Federations and registered Voluntary Organisations which have been in existence for a minimum period of three years. Recently, the programme being implemented across the country has been evaluated by an independent agency. Based on the recommendations / suggestions of the Evaluation agency, the guidelines / norms of the scheme has been revised. The scope and coverage of the Scheme has been enlarged with the introduction of locally appropriate sectors. This has helped to enhance and broaden the employment opportunities, including self-employment and entrepreneurial skills. Besides access to credit, under support services, the implementing agencies provide a comprehensive package of services such as health care, elementary education, creche facility, market linkages etc. (provided under the scheme.)

During the period 2009-10, 21,963 poor women have been benefited from the Scheme. For this purpose, an amount of ₹ 1228.56 lakh have been released to various implementing agencies across the country.

Priyadarshini

Paryadarshini will be an SHG based project for holistic empowerment of women and adolescent girls in 6 districts failing in the Mid-Gangetic plains of Uttar Pradesh and Bihar. The Project Area will be district of Madhubani and Sitamarhi in Bihar and Shravasti, Bahraich, Rae Bareilly and Sultanpur in Uttar Pradesh. NABARD will be the Lead Programme Agency to implement the programme in Bihar and Uttar Pradesh. The programme will be supported by sustainable and improved livelihood opportunities and strengthening of local institutions that relate to livelihood development, in line with the Government of India's 11th Plan and Millennium Development Goals.

The Programme will initially focus on capacity building of community based organizations and supporting organization. Livelihood opportunities will be analysed through the Value Chain and then promoted and supported as micro enterprises through the sub-sector / business development services strategy. These opportunities will be presented to the target group through demonstrations, exposure visits and communication materials to enable them to make informed choices of economic activities most suited to their interests, resources, skills and needs. The process of enterprise selection will be demand driven, with the participants making decisions about individual or group activities. Institutional sustainability will be ensured through Community Service Centers.

The Project would be of 8 years duration starting in 2008-09 and ending in 2015-16. Approximately 1,08,000 households in 6 districts will benefit from the Programme. Organizationally, over 50,000 enterprises will benefit from Programme activities.

The Project will have inbuilt provision for monitoring through the administrative set-up. There will be provision for mid-term and end-line evaluation through external agencies.

Total cost would be US\$ 32.73 million (₹ 147.28 crores) out of which US \$ 30 million would be soft loan from IFAD and GOI contribution would be US\$ 2.73 million. No contribution from State Governments. Annual Work Plan and Budget (AWPB) for the year 2009-2010 and 2010-11 has been approved by the Ministry and an amount of ₹ 6.06 crores has been sanctioned, out of the total amount, ₹ 5,82,80,200/- has been released to NABARD on 5th July, 2010 for implementation of the Priyadarshini Project in the State of Bihar and Uttar Pradesh.

SOCIAL EMPOWERMENT SCHEMES

Swadhar

The Swadhar Scheme was launched by the Department during the year 2001-2002 as a Central Sector Scheme for providing holistic and integrated services to women in difficult circumstances, such as destitute widows deserted by their families in religious places like Vrindaban and Kashi, women prisoners released from jail and without family support; women survivors of natural disasters who have been rendered homeless and are without any social and economic support, trafficked women/girls, rescued or runaway from brothels or other places or victims of sexual crimes, who are disowned by family or who do not want to go back to their respective family for various reasons, women victims of terrorist violence who are without any family support, mentally challenged women who are without any support of family or

relatives etc.

The package of services made available under the Scheme include provision for food, clothing, shelter, health care counseling and legal support, social and economic rehabilitation through education, awareness generation, skill upgradation and behavioral training. The Scheme also supports a help-line for women in distress.

The Project is implemented through Social Welfare/Women and Child Development Department, Women's Development Corporation, Urban Local Bodies, reputed Public/Private Trust or Voluntary Organisations etc. provided they have the needed experience and expertise in the rehabilitation of such women on a project to project basis.

An amount of ₹ 14.94 crore was released under Swadhar Scheme during the year 2009-10 (by 31st March, 2010) to benefit 16,860 women.

Short Stay Homes

The Scheme of Short Stay Homes was launched in the year 1969, is meant to provide temporary accommodation, maintenance and rehabilitative services through voluntary organizations to women and girls rendered homeless due to family discord or crime. Under the programme temporary shelter to the needy women and girls is given for 6 months to 3 years. Children accompanying the mother or born in the home may be permitted to stay in the home upto age of 7 years, after which they may be transferred to children institutes or provided foster care services. The programme was transferred to Central Social Welfare Board (CSWB) w.e.f. April, 1999. During the year 2009-10, an amount of ₹ 1734.04 lakhs was released by CSWB to 336 Short Homes benefiting 22523 beneficiaries all over the country.

Family Counselling Centres

The Scheme of Family Counselling Centres (FCCs) was introduced by Central Social Welfare Board (CSWB) in 1983. The Centres provide counseling, referral and rehabilitative services to women and children who are victims of atrocities, family maladjustment and social ostracism and also provide crisis intervention and trauma counselling in case of natural disasters. The Centres also create awareness and mobilize public opinion on social issues affecting the status of women. The FCCs work in close collaboration with the local administration, police, district courts, free legal aid cells, medical and psychiatric institutions, vocational training centres, short stay homes etc. The FCCs provide professional counselling to the clients. Therefore, emphasis is given to the appointment of professionally qualified and experienced counsellors, intensive orientation and in-service training for the counselors and office bearers of FCCs has been made an integral component of the Scheme. During the year 2009-10, an amount of ₹ 1570.34 lakhs was sanctioned and ₹ 1146.72 lakhs was released by CSWB to benefit 3,10,260 women.

Condensed Courses of Education of Women

The Scheme of Condensed Courses of Education was initiated by Central Social Welfare Board to cater to the needs of adult girls/women who could not join mainstream education system or who were drop-outs from formal schools. The scheme aims to provide educational opportunities to girls/women above the age of 15 years along with additional inputs of skill development/vocational training. The main focus of the Scheme is to ensure that contents of the course are need based and modified according to local requirement and simultaneously targeting towards various stages

educational level of primary/middle and secondary level courses. During the year 2009-10, total number of 421 courses were sanctioned benefiting 10525 women. An amount of ₹ 446.82 was sanctioned and ₹ 699.70 lakh was released by CSWB.

Awareness Generation Programme

The Scheme of Awareness Generation Programme (AGP) aims at generating awareness amongst women and community at large on rights, status and problems of women in particular and other social concerns. Under the Scheme, camps are organized, which provide a platform for women to come together, extend their experiences and ideas and in the process develop an understanding of reality and also the way to tackle the problems and their needs. The programme of Awareness Generation Camps was introduced in 1986-87 with the main aim to identify the needs of rural and poor women and to increase women's active participation in development and other allied programmes. Issues such as the status of women, environment and the economy are being taken up in the camps. During the year 2009-10, a total number of 3006 camps were sanctioned and ₹ 599.80 lakhs were released by CSWB benefiting 7150 women.

SUPPORT SERVICES FOR WOMEN

Working Women's Hostel The Scheme of assistance for construction or expansion of hostel buildings for working women with day care centres for children is being implemented since 1972-1973. Under this scheme, financial assistance is provided to non-governmental organizations, women's development corporations, local bodies, universities etc., for construction of buildings for Working Women's Hostels. This Scheme envisages provision of safe and affordable hostel accommodation to working women (single working women, women working at places away from their hometowns, working but husband out of town, widows, divorcees, separated women, etc.) women being trained for employment and girl students studying in post school professional courses. Trainees are permitted to stay for a period of one year and girl student for a period upto five years, but with the condition that first preference would be given to working women who are being trained for employment and girl students should not exceed 30 per cent of the capacity of the hostel.

So far 887 hostels have been sanctioned throughout the country benefiting 64,922 women. During the year 2008-09, 11 new hostels have been sanctioned to benefit 933 working women. No new hostel has been sanctioned in the year 2009-2010. The Scheme is being revamped. Under the revamped scheme beside grant for construction/expansion of hostel building, grant for hostels in rented accommodation and maintenance grant for complete hostel building have also been envisaged.

Ujjawala A new scheme called "Ujjawala"—A Comprehensive Scheme for 'Prevention of trafficking', with five specific components—Prevention, Rescue, Rehabilitation, Reintegration and repatriation of victims of Trafficking' has been launched on 4 December, 2007. An allocation of ₹ 10 crore has been made for 2010-11 under the Scheme.

The Scheme comprises five components :

1. **Prevention**, which consists of formation of Community vigilance Groups/ adolescents groups, awareness and sensitization of important functionaries like police, community leaders and preparation of awareness generation materials, holding workshop, etc.
2. **Rescue**, safe withdrawal of the victim from the place of exploitation.

3. **Rehabilitation**, which includes providing safe shelter for victims with basic amenities such as food, clothing, counselling, medical care, legal aid, vocational training and income generation activities etc.
4. **Reintegration**, which includes restoring the victim into the family/community (if she so desires) and the accompanying costs.
5. **Repatriation**, to provide support to cross-border victims for their safe repatriation to their country of origin.

Gender Budgeting Gender Budgeting is a powerful tool for achieving gender mainstreaming so as to ensure that benefits of development reach women as much as men. It is not an accounting exercise but an ongoing process of keeping a gender perspective in policy / programme formulation, its implementation and review. Gender Budgeting seeks to ensure equality of outcomes and not equality of opportunities.

The Ministry of Women and Child Development as the nodal agency for Gender Budgeting at the Central level has taken great strides towards promoting gender budgeting across sectors and at different levels of governance. The Ministry adopted the mission statement of 'Budgeting for Gender Equity' in 2004-05 and also framed the Strategic Framework of Activities to implement this Mission 2005 onwards. A powerful impetus to the process was provided by the Ministry of Finance who in 2004, mandated setting up of Gender Budget Cells in all Ministries and Departments. So far, 56 Ministries and Departments of Government of India have set up Gender Cells (GBCs). A Gender Budget Statement (Statement 20) was introduced as part of the Union Budget in 2005-06 wherein allocations flowing to women under various Schemes are reported by Ministries / Departments.

Since raising awareness and understanding of gender issues and impact of budgets and policies is critical for the success of gender budgeting process, the Ministry of Women and Child Development has been organizing series of training and capacity building programmes for Central as well as for State Governments and other stakeholders. Extensive work on training, capacity building, advocacy, awareness generation and sensitization is being undertaken by the Ministry. Many institutes of national repute like the Lal Bahadur Shastri National Academy of Administration (LBSNAA), Mussoorie; Indian Institute of Public Administration, New Delhi and premier training institutions in the States like the State Institutes of Rural Development (SIRDs) and the Administrative Training Institutes (ATIs) have been developed as resource institutions and they also have introduced Gender Budgeting trainings as part of their training courses. A 'Gender Budgeting Handbook and Manual' for Government of India Ministries and Departments has been developed and disseminated.

A Scheme for Gender Budgeting has been included in the 11th Plan. The Scheme has inputs for training, capacity building, research, surveys etc. The State Government and other state agencies like the Women's Development Corporations, Rural and Urban Local Bodies, PSUs, SIRDs and ATIs can apply under the Scheme. The Annual Outlay for 2010-11 for the Schemes of Gender Budgeting is ₹ 2.00 crore.

New Initiatives

National Mission for Empowerment of Women : The Government has launched the National Mission of Empowerment of Women (2010-15) (NMEW) on 8th March, 2010, with a view to empowering women socially, economically and educationally.

The Mission aims to achieve empowerment of women on all these fronts by securing convergence of schemes/programmes of different Ministries / Departments of Government of India as well as State Government. Alongside, the Mission shall monitor and review gender budgeting by Ministries / Departments as well as effective implementation of various laws concerning women.

Rajiv Gandhi Scheme for Empowerment of Adolescent Girls - SABLA has been proposed for adolescent girls in the age group of 11/15 years by merger of Kishori Shakti Yojana and Nutrition Programme for Adolescent Girls along with content enrichment. The scheme RGSEAG would aim at empowering adolescent girls alongwith improvement in this nutritional and health status upgrading various skills like home skills, life skills and vocational skills. It also aims at equipping the girls on family welfare, health, hygiene etc. Anganwadi Centre will be focal point for the delivery of the services. The integrated package of services proposed to be provided to adolescent girls under RGSEAG includes Nutrition provision @ ₹ 5 per day per beneficiaries.

Indira Gandhi Matritva Sahyog Yojana (IGMSY) - CMB Scheme: The Ministry has a centrally sponsored Scheme - Indira Gandhi Matritva Sahyog Yojana (IGMSY) - a Conditional Maternity Benefit (CMB) Scheme. It will be pilot intervention in selected districts. IGMSY envisages providing cash directly to P & L women in response to individual fulfilling specific conditions. The Scheme seeks to holistically address the issues regarding the women's compulsions to work right upto the last stage of pregnancy and resumption of work soon after child birth. Therefore, it is a mitigative measure in the form of CCT to provide part compensation of wage loss as maternity benefit to women during pregnancy and lactation period.

Stree Shakti Puraskar : As a measure of recognition of achievements of individual women in the field of social development, the Government of India has instituted five national awards, known as 'Stree Shakti Puraskar'. These awards will be in the name of the following eminent women personalities from Indian history, who are famous for their personal courage and integrity:

- Devi Ahilya Bal Holkar
- Kannagi
- Mata Jijabai
- Rani Gaideniou Zeliang
- Rani Lakshmi Bai

From the year 2007, another sub category of Stree Shakti Puraskar, named as the Rani Rrdrama Devi has been added, which will be awarded to individual men and women for their outstanding administrative skill, leadership quality and courage.

Each award carries a cash prize of Rs. 3 lakh and a citation.

PROGRAMMES FOR CHILDREN

Integrated Child Development Services (ICDS) Scheme : The Integrated Child Development Services (ICDS) Scheme was launched in 1975 as a Centrally Sponsored Scheme with the following objectives: (a) to improve the nutritional and health status of children below the age of six years and pregnant and lactating mothers; (b) to lay the foundation for the proper psychological, physical and social development of the child, (c) to reduce the incidents of mortality, morbidity, malnutrition and school dropouts, (d) to achieve effective coordination of policy and implementation among

various departments to promote child development, (e) to enhance the capability of the mother to look after the health and nutritional needs of the child through proper health and nutrition education. The Scheme provides for a package of services to children below 6 years and pregnant women and lactating mothers, comprising (i) Supplementary Nutrition (ii) Nutrition and Health education, (iii) Pre-school, non formal education. (iv) Referrals, (v) Immunization, (vi) Health check-ups. The latter three services are provided in convergence with the Ministry of Health and Family Welfare through the Public Health System.

The services are provided concurrently so that synergetic and holistic development of children takes place. Inter-sectorial convergence with cognate Ministries is therefore, in-built and integral to the ICDS Scheme. The primary convergences is with the Ministry of Health and Family Welfare wherein three services under ICDS are delivered through Health Ministry's programme of Reproductive and Child health (RCH) under National Rural Health Mission (NRHM) for addressing the health needs of mothers and children. Inter-sectorial convergences of ICDS as also visualized with programmes for providing safe drinking water and sanitation of the Ministry of Rural Development, Department of Drinking Water Supply.

Till 2005, the ICDS covered only 50 per cent of the habitations in the country. The ICDS Scheme has been expanded in three phases in the years 2006-07, 2008-07 and 2008-09 to cover all habitations reaching upto 14 lakh AWCs in 7076 approved projects. The States/UTs are in the process of operationalisation of sanctioned projects and AWCs which is likely to be completed in this financial year. After universalization, AWCs would reach every habitation with focus on SC/ST and Minority habitations.

Ministry of Women and Child Development is implementing two Schemes for the development of adolescent girls viz., Kishori Shakti Yojana (KSY) and Nutrition Programme for Adolescent Girls (NPAG). Kishori Shakti Yojana (KSY) is an intervention for adolescent girls which aims at addressing needs of self skills of girls in the age group of 11 to 18 years. The Scheme is currently operational in 6118 ICDS projects. Nutrition Programme for Adolescent Girls (NPAG) is being implemented in 51 identified districts across the country to provide free foodgrains @ 6 kg per beneficiary per month to undernourished adolescent girls (11-19 years) irrespective of the financial status of the family to which they belong. Both the schemes are being implemented through the infrastructure of ICDS.

Food and Nutrition Board

Food and Nutrition Board (FNB) under the aegis of the Ministry of Women and Child Development is implementing integrated Education in Nutrition, a Central Scheme and is primarily engaged in empowering the field functionaries especially under integrated Child Development Services (ICDS) Scheme as well as the public with basic knowledge of nutrition and health with a view to improving the nutritional status of the people with special focus on women and children. It focuses on production of low cost, locally available food, conservation of fruits and vegetables through home-scale processing and training of health functionaries. The FNB operates through a technical wing at the Centre, four Regional Offices, Quality Control Laboratories at Delhi, Mumbai, Kolkata and Chennai and 43 Community Food and Nutrition Extension Units (CFNEUs) located in 29 States / UTs.

The Food and Nutrition Board, which has been recognized by the Planning Commission in its 11th Five Year Plan document as one of the key player to reduce the

malnutrition level in the country and, is engaged in the following activities.

- Follow up action on National Nutrition Policy;
- Mass Nutrition Awareness Campaigns;
- Nutrition Education and Training, both for the masses and for ICDS functionaries;
- Development production and distribution of nutrition education/training material;
- Food Analysis and Standardization;
- Development and promotion of locally available Nutritious Foods; and
- Training in Home Scale Preservation of Fruits and Vegetables and Nutrition.

The National Nutrition Policy (NNP) was formulated in 1993, and as a follow up the National Plan of Action was developed in 1995. The National Plan of Action identified the different sectors in the Government for taking up coordinated action to combat malnutrition. National guidelines on Infant and Young Child Feeding have been brought out and the implementation of the Infant Milk Substitutes, Infant Foods and Feeding Bottles (Regulation of Production, Supply and Distribution) Act, 1992, as amended in 2003 (IMS Act) rests with Food and Nutrition Board.

Films, audio and video spots, radio programmes dealing with important issues of infant and young child feeding, balanced diets, prevention of under nutrition and micronutrient deficiencies as well as diet related chronic non-communicable diseases form part of the communication strategy. Exhibitions are held and celebration of events like World Breast Feeding Week, National Nutrition Week, World Food Day etc. are taken up on a regular basis.

FNB has various publications viz. A Ready Reckoner on Nutrition and Fruits and Vegetable Preservation, Booklet on dietary Tips for Better Health, IYCF guidelines Posters on Nutrition etc. The list of publications is on the web site of the Ministry of Women and Child Development.

Rajiv Gandhi National Creche Scheme

Rajiv Gandhi National Creche Scheme is being implemented with effect from 1st January 2006 for working women's children User charges of Rs. 20/- from BPL families and Rs. 60/- from other families per month have also been introduced. The income eligibility limit of family has been fixed at Rs. 12000/- per month. The scheme is presently being implemented through the Central Social Welfare Board and Indian Council for Child Welfare. During the year 2009-10, 26,937 creches were assisted benefitting 6.73 lakh children.

The objective of the scheme is to provide day care facilities to the children (age group of 0 to 6 years) of working mothers by opening creches. Also to provide development services i.e. supplementary nutrition, health care inputs like immunization, polio drops, basic health monitoring and recreation to the children of working mothers.

The Government assistance is limited to 90 per cent of the schematic pattern or actual expenditure (except honorarium to creche workers) whichever is less and the remaining expenditure will have to be borne by the implementing agencies concerned. Government grant @ Rs. 3532.00 per month per creche is given to the implementing agencies concerned.

- (i) Grant for running creche centres: Recurring and Non-recurring grants as

per the following pattern:

Grant for running creche centres : Recurring and Non-recurring grants as per the following pattern -

Recurring grant

Components	Ceiling expenditure	Grant
Honorarium to two creche workers per creche @ Rs. 1000.00 per creche worker per month	Rs. 2000.00 per month	Rs. 2,000.00 (100%)
Supplementary nutrition per creche for 25 children for 26 days @ Rs. 2.08 per child	Rs. 2352.00 per month	Rs. 1217.00 (90%)
Emergency medicines and contingencies	Rs. 350.00 per month	Rs. 315.00 (90%)

Non - recurring grant

Components	Ceiling expenditure	Grant
Purchase of consumable stores once at the time of opening of new creche @ Rs. 10,000.00 per creche.	Rs. 10,000.00 per creche	Rs. 10,000.00 (100%)
Replacement of old consumable stores at an interval of five years @ Rs. 5,000.00 per creche.	Rs. 5,000.00 per creche	Rs. 5,000.00 (100%)

(ii) Grant for creche workers' training : Rs. 61,900.00 per batch consisting of 30 creche workers. A short term training will be provided to every creche worker: The training module, which will be made available with the help of NIPCCD, will be provided through the training agencies that will be identified with the help of State Governments;

(iii) Grant for monitoring of creches: Rs. 700.00 per creche visited and inspected and a lump sum one-time grant of Rs. 10000.00 to each monitoring agency. The Scheme has in-built component of monitoring of creches. State-wise independent monitoring agencies have been identified in consultation with the State Governments. The Scheme is under revision.

Integrated Child Protection Scheme (ICPS)

Ministry of Women and Child Development has launched a new centrally sponsored Scheme namely—Integrated Child Protection Scheme (ICPS) from the current financial year 2009-10 for implementation through the State Governments/UT Administrations. The objectives of the Scheme are to contribute to the improvement in the well being of children in difficult circumstances, as well as to the reduction of vulnerabilities to situations and actions that lead to abuse, neglect, exploitation, abandonment and separation of children from parents. The Scheme is being implanted through the State Governments/UT Administrations on a predefined cost sharing financial pattern.

ICPS provides preventive, statutory, care and rehabilitation services to children who are in need of care and protection and children in conflict with law as defined

under the Juvenile Justice (Care and Protection of Children) Act, 2000 as amended in 2006 and any other vulnerable child. ICPS provides financial support for setting up and running of services for children either by NGOs following due process by the State Government/UT Administrations or by the State Governments/UT Administrations themselves. These services include (a) Emergency outreach services through children; (b) Open shelters for children in Need in Urban and Semi Urban areas; (c) Family Based Non-Institutional Care; (d) aftercare; (e) Institutional Services.

Financial assistance under this scheme is provided to the State Governments/UT Administrations for setting up of statutory bodies like : (a) Child Welfare Committee; (b) Juvenile Justice Board (JJB); and (c) State Juvenile Police Unit as provided under the JJ Act.

ICPS brings existing child protection programmes namely : (i) A programme for Juvenile Justice; (ii) an Integrated Programme for Street Children, and (iii) Scheme for Assistance to Homes (Shishu Greh) to promote in country adoption, under one umbrella with some new additional interventions.

The Scheme is being implemented mainly through the State Governments / UT Administrations from last financial year 2009-10 subject to the condition that State Governments/ UT Administrations should agree to implement the Scheme by signing a Memorandum of Understanding and committing its share of funds for the implementation of the Scheme. So far 21 States namely, Andhra Pradesh, Chhattisgarh, Orissa, Madhya Pradesh, Kerala, Rajasthan, Nagaland, Manipur, Assam, West Bengal, Goa, Tamil Nadu, Tripura, Gujarat, Delhi, Haryana, Karnataka, Bihar, Mizoram, Skkim and Meghalaya have signed the MoU with the Union Government, Ministry of Women and Child Development for implementation of this Scheme.

₹ 1073.00 crore has been allocated for implementation of this scheme during the 11th Plan period and the budget allocation under this scheme for the last financial year 2009-10 was ₹ 60.00 crore (Rs. 50.00 crore in RE 2009-10) out of which ₹ 9.93 crore was released to Childline India Foundation (CIF), Mumbai for running child helpline services in the country and ₹ 33.30 crore was released to State Governments of Andhra Pradesh, Nagaland, Madhya Pradesh, Maipur, Orissa, West Bengal, Chattisgarh, Assam, Rajasthan, Gujarat, Kerala, Tamil Nadu, Haryana and Karnataka as the Central share of funds, for implementation of this Scheme. For the current financial year 2010-11, ₹ 300.00 crore has been provided for.

Childline Services

Childline having a dedicated number 1098 is a 24 hour toll free telephone service available to all children in distress or by adults on behalf of children in distress. At present, Child Line is working in 83 cities. The basic objectives of Child Line are to : (i) respond to the emergency needs of the children in difficulty and refer him/her to such services as he/she is in need of; (ii) provide a forum for networking among Government agencies and non-Governmental agencies and non-Government agencies dedicated to the network of services in child care and protection; (iii) sensitize hospitals, medical personnel, police municipal corporations etc. towards needs of children, (iv) ensure protection of rights of the child, and (v) provide an opportunity to communities to respond to the needs of children in difficult circumstances. Childline operations are coordinated, monitored and expanded by Childline India Foundation, which is the umbrella organisation, set up by the Government of India.

Scheme for Welfare of Working Children in Need of Care and Protection : The

implementation of the scheme commenced in January, 2005. The objective of the Scheme is to provide non-formal education, vocational training etc. to working children to facilitate their entry/re-entry into mainstream education in cases where they have either not attended any learning system or where for some reasons their education has been discontinued, with a view to preventing their future exploitation.

Financial assistance is provided under this Scheme to Non-Governmental Organizations (NGOs) for setting up of composite centres of working children exclusively in those areas which have not already been covered by the Ministry of Labour and Employment under their schemes namely National Child Labour Project; and Indo-US Project. At present, Ministry is assisting 116 projects of 100 children each under this scheme in 14 States/ UTs. The budget allocation for the last financial year 2009-10 was ₹ 7.00 crore, which was increased to ₹ 9.50 crore in RE 2009-10 keeping in view the increased demand under the scheme out of which ₹9.50 crore was released to assist 107 projects covering 10,700 beneficiaries. The budget allocation under this Scheme for the current financial year is ₹ 12.50 crore.

Children's Day: India observes Children's Day on 14 November every year. The Day enables us to review the progress made in attaining the decadal goals, identify gaps and constraints and work out strategies to reach the time-bound goals. A grand function was organized by the Ministry of Women and Child Development in New Delhi on 14th November, 2009 in the presence of Finance Minister, Minister of State for Women and Child Development (Independent Charge) and other dignitaries for presentation of National Child Awards for Exceptional Achievements for the year 2009.

National Policy for Children

The National Policy for Children adopted on 22nd August 1974 lays down that the State shall provide adequate services for children, both before and after birth and during the growing stages for their full physical, mental and social development. The measures suggested in the Policy include amongst others, a comprehensive health programme, supplementary nutrition for mothers and children, free and compulsory education for all children up to the age of 14 years, promotion of physical education and recreational activities, special consideration for children of weaker sections like SCs and STs, prevention of exploitation of children etc. The Policy is being reviewed by the Ministry as per present needs and priorities.

The National Charter for Children

The Government of India adopted the National Charter for Children as notified in the Gazettee of India on 9th February, 2004. The National Charter is a statement embodying the Government's agenda for children. The document emphasizes Government of India's commitment to children's rights to survival, health and nutrition, standard of living, play and leisure, early childhood care, education, protection of the girl child, empowering adolescents, equality, life and liberty, name and nationality, freedom of expression, freedom of association and peaceful assembly, the right to a family and the right to be protected from economic exploitation and all forms of abuse. It also provides for protection of children in difficult circumstances, children with disabilities, children from marginalized and disadvantaged communities, and child victims. The document, while stipulating the duties of the State and the Community towards children, also emphasizes the duties of children

towards family society and the Nation.

National Child Award for exceptional Achievement

The National Child Award for Exceptional Achievement was instituted in 1996 to give recognition to children with exceptional abilities who have achieved outstanding status in various fields including academics, arts, culture and sports, etc. Children between the age of 4 to 15 years are to be considered for this award. One Gold Medal and 35 Silver Medals (one for each State/UT) are given annually. The awards for the child with exceptional achievement consists of:-

Gold Medal - 1 (One)

- (i) A cash prize of Rs. 20,000/-
- (ii) A Citation and certificate, and
- (iii) A Gold Medal

Silver Medals - 35 (thirty Five)

- (i) Award money @ Rs. 10,000/- for each awardee
- (ii) A citation and certificate for each awardee, and
- (iii) A Silver Medal for each awardee

The Awards for the year 2009 were presented at a function organized by the Ministry in New Delhi on 14th November, 2009 in the presence of various dignitaries.

National Award for Child Welfare

The Award was instituted in 1979 to honour five institutions and three individuals for their outstanding performance in the field of child welfare. The National Award for Child Welfare includes a cash prize of Rs. 3 lakh and a certificate for each institution and Rs. 1 lakh and a certificate for each individual. The Awards for the year 2007 and 2008 were given on 05-02-2009.

Rajiv Gandhi Manav Seva Award : This Award was instituted in 1994 to honour an individual who makes outstanding contribution towards service for children. The Awards are given to three individuals who have done outstanding work in the fields of child development, child welfare and child protection. The Award carries a cash prize of Rs. 1.00 lakh, a silver plaque and a citation. The awards for the year 2007 and 2008 were presented at a function held on 5th February; 2009.

THE GIRL CHILD

Prevention of female foeticide

Crime and violence against the girl child starts even before she takes birth. This is evident from the incidence of female foeticide which has been increasing over the years denying the girl child the right to be born. The Ministry has suggested to Ministry of Health to strengthen the existing administrative enforcement and monitoring provisions under the Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) (PNDA) Act, 1994 and put in place such mechanisms that can tackle the problem of sex determination and foeticide in a more effective manner.

Dhanlakshmi

A new Pilot Scheme "**Dhanlakshmi**—Conditional Cash Transfer for Girl Child with Insurance Cover (CCT)" was launched on 3rd March, 2008 by the Ministry of Women

and Child Development. The Scheme provides cash transfer to the family of the girl child (preferable the mother) on fulfilling certain specific conditionalities, for the girl child:

- (i) At birth and registration of birth
- (ii) On progress of immunization (6 monthly transfer)
- (iii) On completion of full immunization
- (iv) On enrolment and retention in school (MWCD will provide cash transfer till Class 8 and MHRD will provide cash incentives from Classes 9 to 12)
- (v) Remains unmarried at the age of 18 years.
- (vi) In addition, an insurance maturity coverage to the tune of Rs. 1 lakh would be taken for the girl child born on or after the cut-off date of 19.11.2008.

The objective of the scheme is two fold : (i) The direct and tangible objective is to provide a set of staggered financial incentives for families to encourage them to retain the girl child and educate her. (ii) The more subtle and intangible objective is to change the attitudinal mindset of the family towards the girl. This will force the families to look upon the girl as an asset rather than a liability since her very existence has led to cash inflow to the family. The Scheme is being plotted in 11 blocks across seven States of Andhra Pradesh, Chattisgarh, Orissa, Jharkhand, Bihar, Uttar Pradesh and Punjab. An allocation of Rs. 10 crore has been made of 2010-2011 under the Scheme.

STATUTORY PROTECTION

Acts relating to Women and Children

The Ministry is in-charge of the administration of the following Acts relating to women and children: (a) The Immoral Traffic (Prevention) Act, 1956 (as amended in 1986) (b) The Indecent Representation of Women (Prevention) Act, 1986 (60 of 1986) (c) The Dowry Prohibition Act, 1961 as amended in 1986 (d) the Commission of Sati Prevention Act, 1987 (3 of 1988) (e) The Prohibition of Child Marriage Act 2006 (notified in January 2007) (f) Protection of Women from Domestic Violence Act 2005, (g) National Commission for Women Act 1990 (h) Infant Milk Substitutes, Feeding Bottles and Infant Food (Regulation of Production, Supply and Distribution) Act, 1992 (41 of 1992) (i) Commission for Protection of Child Rights Act 2005 and (j) Juvenile Justice (Care and Protection of Children) Act 2000.

Prohibition of Child Marriages

In order to prohibit child marriages, and to make the provisions of the Act more effective and stringent punishment of offenders, a new legislation. The Prohibition of Child Marriage Act, 2006 (No. 6 of 2007) has been notified in the Gazette of India on 11th January, 2007. The above said Act has been enforced w.e.f. 1 November, 2007. With the enforcement of the new Act, the Child Marriage Restraint Act, 1929 has been repealed.

The Salient features of the Prohibition of Child Marriage Act, 2006 are as given below:

- Every child marriage, shall be voidable at the option of the contracting party who was a child at the time of marriage
- Court while granting a decree of nullity shall make an order directing the parties, parents and guardians to return the money, valuables, ornaments and other gifts received.

- Court may also make an interim or final order directing the male contracting party to the child marriage/parents/guardian to pay maintenance to the female contracting party to the marriage and for her residence until her remarriage.
- Court shall make an appropriate order for the custody and maintenance of children of child marriages.
- Notwithstanding that a child marriage has been annulled every child of such marriage shall be deemed to be a legitimate child for all purposes.
- Child marriages to be void in certain circumstance like minor being sold for the purposes of marriage, minor after being married is trafficked or used for immoral purposes, etc.
- Enhancement in punishments for male adults marrying a child and persons performing, abetting, promoting, attending, etc a child marriage with imprisonment up to two years and fine up to one lakh rupees.
- States to appoint child marriage prohibition officers whose duties would include-prevent solemnization of child marriages, collect evidence for effective prosecution, create awareness and sensitization of the community, furnish periodical returns, etc.
- State Government to make Rules after notification of the Act.

As per information received in this Ministry, so far 18 States/UTs have appointed Child Marriage Prohibition Officers and 17 States/UTs have framed the Rules. Also, awareness generation and advocacy measures are continuously being undertaken by the Ministry of Women and Child Development in this connection.

Protection of women from Domestic Violence Act 2005. A new law on the protection of women from domestic violence has been enacted and brought into operation from 26.10.2006.

INTERNATIONAL COOPERATION

The Ministry is responsible for International Cooperation in matters relating to Women and Children.

Cooperation with UNICEF

UNICEF projects are being implemented in India through an agreement between Ministry of Women and Child Development on behalf of Government of India and UNICEF, which is prepared after mutual consultation and consensus. The Ministry of Women and Child Development is the nodal Ministry for coordinating the implementation of the Agreement. The Ministry of Women and Child Development conducts periodic review meeting to coordinate and monitor the implementation and expenditure of the programme.

The new Agreement, title "Country Programme Action Plan (CPAP)" for the period 2008-2012 was signed between Ministry of Women and Child Development and UNICEF on 3rd June, 2008 in New Delhi. The CPAP will be implemented through sectoral Ministries and Departments and aims at focusing on reduction in India's infant Mortality and Maternal Mortality Rates, fighting under-nutrition, promoting girl child, addressing violence against children, providing quality education, ensuring safe drinking water and environmental sanitation and tackling HIV.

UNICEF has committed to support the Government of India's flagship

programmes in the social sector in order to support and strengthen their essential work and to raise US \$ 512 million for the five year programme of cooperation in India. The GOI-INCEF Country Programme Action Plan 2008-2012 is guided by UN Convention on the Rights of the Child and other national and international instruments.

Convention on Elimination of Discrimination against Women (CEDAW) : India signed the Convention on Elimination of Discrimination against Women (CEDAW) on 30th July 1980 and ratified it on 9th July 1993 with one reservation and two declaratory statements. The convention obligates the state parties to undertake appropriate legislative and other measures to eliminate discrimination against women and for guaranteeing them the exercise and enjoyment of human rights and fundamental freedom on the basis of equality with men. The First Report was submitted (on 21st October) in 1997 and was considered (on 24th and 30th) in June 2000. A combined 2nd and 3rd Periodic Report was submitted in June 2005. The UN Committee on CEDAW considered the Report on 18th January 2007.

Beijing Platform for Action : The Fourth World Conference on Women, held in Beijing in 1995 was a landmark event that set the pace for women's empowerment when a Declaration and Platform for Action (BPFA) were adopted. BPFA has identified 12 critical areas of concern for women. India adopted both without any reservations. The Committee on Status of Women reviews progress made by member countries in the critical areas. The 53rd session of Committee on Status of Women was held from 2-13, 2009 in New York.

UN Convention on the Rights of the Child :- India acceded to the UN Convention on the Rights of the Child on 11 December, 1992 to reiterate its commitment to the cause of children. The objective of the Convention is to give every child the right to survival and development in a healthy and congenial environment. The two Optional Protocols to the Convention on the Rights of the Child (CRC) have also been signed and ratified by the country in the year 2005, which are on (i) children involved in armed conflicts, and (ii) sale of children, child prostitution and child pornography.

OTHER PROGRAMMES

Assistance to Voluntary Organisations for providing Social Defence Services : A number of unchartered areas remain that are not currently covered by any of the existing Schemes of the Ministry of Women and Child Development. To cover a wide spectrum of programme area for tackling social problems or meeting the needs of specific client groups which have hitherto not been addressed through the Schemes of MWCD or other Ministries, a general Scheme of grant-in-aid (GIA) is implemented which does not transgress the existing grant-in-aid schemes but rather supplements them. Support within this Scheme is given to work that is innovative in nature i.e., addressing a peculiar problem or working with a client group that has not been previously covered. 90 per cent financial assistance is provided to the Non-Governmental Organisations (NGOs) and the balance of 10 per cent among others to be met by the voluntary agencies or any other organizations but preferably by the voluntary organization itself.

STATUTORY AND AUTONOMOUS ORGANISATIONS

National Commission for Women (NCW) is a statutory body constituted on 31.1.1992 under the National Commission for Women Act, 1990. The main task of the Commission is to study and monitor all matters relating to the Constitutional and legal safeguards provided for women and to review the existing legislations and

suggest amendments, wherever necessary.

The Commission also ensures speedy redressal of grievances of women. The NCW has formulated a Scheme titled 'Scheme for relief and Rehabilitation of Victims of Rape, 2005'. It envisages compensation to the victims of rape up to a maximum amount of ₹ 2 lakhs for all rehabilitation measures. The National Commission for Women has also initiated a pilot project with Delhi Police in May, 2008. The project is called 'Save Home, Save Family'. The intention is to settle disputes of married couples through reconciliation process. A major function of the project is also to handle cases of violence against women (VAW), provision of police assistance on criminal complaints, referral to family service agencies, counselling, legal aid and generating awareness of VAW. NCW was nominated as the co-ordinating agency at the National level for dealing with issues pertaining NRI marriages. NRI cell of NCW deals with complaints received from deserted women in India and abroad due to cross-country marriages.

National Commission for Protection of Child Rights (NCPCR) The Commissions for Protection of Child Rights Act 2005 was notified in the Gazettee of India on 20th January, 2006. A National Commission for Protection of Child Rights was set up on 5th March 2007 in accordance with the provisions of the Act for proper enforcement of children's rights and effective implementation of laws and programmes relating to children. Its Mission is to protect, promote and defend child rights in India. Its mandate is to ensure that all laws, policies, programmes, practices and administrative structure in the country are in consonance with the child rights perspective as enshrined in the Constitution of India and also the UN Convention on the Rights of the Child (CRC). The Ministry has been pursuing with the State Governments from time to time to set up State Commissions. So far State Commissions have been set up in Delhi, Sikkim, Goa, Maharashtra, Karnataka, Madhya Pradesh, Rajasthan and Assam.

Rashtriya Mahila Kosh (RMK) The National Credit Fund for Women or the Rashtriya Mahila Kosh (RMK) was set up in March 1993 as an independent registered society with an initial corpus of ₹ 31 crore which has increased to ₹ 100 crores over years. Its main objective is to provide or promote provision of micro credit to poor, assetless women for income generation activities for asset creation and for tiding over contingent consumptions need, as also to act as an instrument of socio-economic change and development of women. In 2009-10, the Government has proposed to restructure and reutilize RMK to scale up their activities including that of background and forward linkages to function as a single window facilitator and service provider for women self help groups (SHGs).

National Institute of Public Cooperation and Child Development (NIPCCD) (NIPCCD), New Delhi is an autonomous organization under the aegis of the Ministry of Women and Child Development. The objectives of the Institute are to develop and promote voluntary action in social development, take a comprehensive view of child development, and to develop and promote programmes in pursuance of the National Policy for Children, develop measures for coordination between governmental and voluntary action in social development, and evolve a framework and perspective for organising children's programmes through governmental and voluntary efforts.

Training is one of the core activities of the Institute. The Institute is the apex body for training functionaries of the Integrated Child Development Services (ICDS) programme. It has also been identified as the Lead Training Agency for *Swayamsidha*

which was launched in the year 2001 for empowerment of rural women. The Institute is a nodal resource agency for training and capacity building of functionaries at the national and regional level, under the proposed integrated Child Protection Scheme (ICPS), to be launched soon. The Institute provides technical advice and consultancy to government and voluntary agencies in promoting and implementing policies and programmes for women and child development and voluntary action. In addition, it collaborates with regional and international agencies, research institutions, universities and technical bodies. The institute has established four Regional Centres at Guwahati, Bengaluru, Lucknow and Indore.

Central Social Welfare Board (CSWB)

The Central Social Welfare Board was set-up by a Resolution of Government of India dated 12th August, 1953 with the object of promoting social welfare activities and implementing welfare programmes for women, children and the handicapped through voluntary organizations. Till 1969 the Board functioned as a limb of the Government and then it was registered as a charitable company under the company's act to give it legal status to the Board. The Board was given the responsibility of taking welfare services to the disadvantaged sections of the society especially women and children, and also developing a nationwide infrastructure of voluntary agencies through which these services could be made available. In order to maintain the topicality of its schemes and programmes and to remain responsive to the needs of society, the Board has been revamping and redesigning or formulating programmes that best fulfill emerging requirements.

Central Adoption Resource Agency (CARA):

Central Adoption Resources Agency (CARA) was set up on 20th June, 1990. It was registered as an autonomous body under the Registration of Societies Act, 1860 on 18.3.1999. On the recommendation of the State Governments, CARA gives recognition to agencies to facilitate inter-country adoptions. It also gives enlistment to foreign adoption agencies as recognized under the appropriate laws of their own country and recommended by Indian Missions abroad. So far, CARA has recognized 64 Indian Placement Agencies in the country and 152 Enlisted Agencies, which also include Government Departments in more than 25 countries. CARA also implements Shishu Greh Scheme, which promotes in-country adoption. This Scheme has been subscribed in Integrated Child Protection Scheme (ICPS).

PENSION AND PENSIONERS' WELFARE

The Department of Pension and Pensioner' Welfare, set up in 1985, is the nodal agency of the Government of India for formulation of general policy on pension and other retirement benefits, as also for redressal of pensioners' grievances. A number of steps have been taken in the last few years for streamlining the pension administration system. In pursuance of the recommendations of the Sixth Central Pay Commission for rates of pension, family pension, etc. have been revised as under.

(i) Pension/Family Pension : Minimum pension has been enhanced to ₹ 3500/- per month w.e.f. 1.1.2006. Linkage of full pension with 33 years of qualifying service has been dispensed with. Once a Government servant has rendered the minimum qualifying service of 10 years (20 years for voluntary retirement) pension is paid at 50 per cent of the emoluments or average emoluments received during the last 10 months, whichever is more beneficial to him.

(ii) Commutation of Pension : The commutation of pension has been allowed up to

40 per cent of pension.

(iii) Gratuity : The ceiling of gratuity has been raised to ₹ 10 lakhs.

(iv) Family Pension : Family pension is paid at the uniform rate of 30 per cent of the pay last drawn. The Family pension at enhanced rate is payable to the family of a deceased government servant for a period of 10 years. In the case of deceased pensioner, enhanced family pension is paid for a period of seven years, or for a period upto the date on which the retired deceased government servant would have attained the age of 67 years, had he survived, whichever is earlier. The definition of family for the purpose of family pension has been broadened to include dependent parents; dependent widowed and divorced daughters made eligible for family pension with effect from 1st January 1998; family pension for life extended to the dependent divorced and widowed daughters with effect from 30th August 2004 and to the unmarried daughters w.e.f. 6.9.2007. Son or daughter, suffering from any disorder or disability of mind or physically crippled or disabled, have been made eligible for family pension for life. Dependent disabled (i.e. sisters/brothers) have been made eligible for family pension for life. Dependent disabled siblings (i.e. sisters/brothers) have been made eligible for family pension for life. Maximum limit for two family pensions to dependent children of the deceased Government servants has been raised to ₹ 45,000/- with effect from 1st January, 2006.

(v) Deposit Linked Insurance Scheme : The upper ceiling of amount payable under the deposit linked Insurance Scheme has been fixed at ₹ 60,000/-.

(vi) Medical Allowance : A fixed medical allowance @ ₹ 100 per month is payable to the Pensioners residing in areas not covered by CGHS. A proposal for enhancement in Fixed Medical Allowance consequent on 6th CPC recommendations is under consideration of the Government.

(vii) CPF Retirees : CPF retirees of the period from 18th November 1960 to 31st December 1985, who retired on superannuation with 20 years of continuous service, have been allowed ex-gratia at the rate of ₹ 600/- per month with effect from 1st November, 1997.

(viii) Timely Payment of Pension and Retirement Dues : In pursuance of observations made by the Parliamentary Standing Committee of the Ministry of Home Affairs in Para 61 of its 44th Report, detailed instructions have been issued for timely payment of pension and retirement dues to the retiring employees of the Union Government. The instructions also provide for fixing responsibility of penal interest paid on delayed amount of gratuity to the retiring employees from the salary of concerned dealing Official/Supervisor and Head of Office in proportion.

(ix) Employed family pensioners have been allowed Dearness Relief (D.R.) on their family pension with effect from 18th July 1997. In the case of reemployed pensioners D.R. on pension is payable only if pay on reemployment has been fixed at the minimum of the scale of re-employed post and subject to certain conditions.

(x) Central Government Servants who had drawn lump sum payment on absorption in PSUs/Autonomous Bodies are entitled to restoration of 1/3rd commuted portion of pension duly revised as per O.M. dated 06.092007 in pursuance of Supreme Court's Judgments dated 29th November 2006 and 24th July, 2007. The D.R. has now been allowed on full pension instead of 1/3rd commuted portion of pension. In pursuance of revision of pension as per 6th Pay Commissions Recommendations, the 1/3rd restorable pension of PSU/CAB absorbed employees, who had drawn lump sum in

lieu of 100 per cent pro-rata pension, has been revised.

(xi) Identity Cards to Pensioners : The Government has decided to issue Identity Cards with National Emblem to all Civilian Central Government pensioners.

(xii) DA to be Treated as Emoluments for Gratuity : W.e.f. 1st January 1996, DA admissible on the date of retirement/death of the Government employee is treated as emoluments for the purpose of gratuity.

Besides following are the details of other benefits/facilities relating to pension, family pension, etc. which have been revised/improved from time to time.

(i) New Pension Scheme (Restructured Defined Contribution Pension System) : Based on the recommendations of the High-level Expert Group-(2001) to review the pension system to introduce a comprehensive pension scheme and pursuant to the announcement in the Budget 2003-2004, Department of Economic Affairs notified on 22nd December, 2003, a new "Restructured Defined Contribution Pension System" for new entrants to the Central Government Service, except the Armed Forces, in the first stage, replacing the existing defined benefit pension system.

(ii) The 'New Pension System' has become operative from 1st January, 2004 and applies to Central Government servants appointed on/after 1st January 2004;

(iii) Consequent to introduction of 'New Pension Scheme' with effect from 1st January 2004, CCS (Pension) Rules 1972, CCS (Commutation of Pension) Rules 1981, GPF, CPF and EOP Rules will not be applicable to Central Government servants appointed on or after 1st January 2004;

(iv) With the implementation of the 'New Scheme' with effect from 1st January 2004, the Old Pension Scheme under the Central Civil Services (Pension) Rules, 1972 ceased to exist beyond 31st December 2003 for the Central Government servants appointed on or after 1st January, 2004. However, the employees would continue to be covered under the old pension scheme if they join after submitting technical resignation from Central Government or Central Autonomous Body where old pension scheme was in operation prior to 1st January 2004. This will facilitate mobility of employees between Central Government Department and Central Autonomous Bodies and vice-versa.

(v) Additional benefits, such as gratuity, invalid pension, family pension, etc., as hitherto availed by Govt. servants under the Old Pension Scheme, allowed on death or discharge on invalidation/disability of Govt. servants covered by New Defined Contribution Pension System.

(vi) Ex-Gratia to Disabled Children of CPF/Retirees : Physically or mentally disabled children of Contributory Provident Fund/State Reserve Police Force retirees are entitled to the benefit of ex-gratia payment for life on the same conditions as prescribed for such children of Government servants under CCS (Pension) Rules 1972 and corresponding rules applicable to Railway employees.

(vii) Medical Certificate in Respect of Disabled Children : Rules 54 (6) of CCS (Pension) Rules, 1972 has been amended. Certificate of disability shall be provided only once if the disability is permanent; and once in 5 years if the disability is temporary. The Medical Certificate would now be issued by a Medical Board.

(viii) Dearness Relief : Pensioners are allowed 100 per cent neutralization vis-a-vis the rise in cost of living and order to this effect are issued twice a year effective from 1st January and 1st July of the year.

(ix) Central Government Servants Absorbed in PSUs or Autonomous Bodies : Sub-

Rules (8) of Rules 37(A) of CCS (Pension) Rules 1972 has been amended to allow the employees absorbed in PSU of Autonomous Body to exercise option either to get pro rata pensionary benefits or to continue to get combined service benefits. Prior to the above amendment, employees were eligible for benefits based on combined service.

(x) Pensioners' Portal : As part of the National e-Governance Plan (NeGP), a web-enabled 'Pensioners Portal', a Mission Mode Project, has been launched for public domain w.e.f. 30.03.2007. It envisages redressal of pensioners' grievances besides providing guidance and information on pension and retirement related matters. 27 pensioner's Associations have been identified for association with the implementation of the Portal. Hardware and software has been provided to the representatives of Pensioners Associations and officials of various Ministries/Departments. An Impact Assessment study of the Scheme by an external agency is underway.

29 Youth Affairs and Sports

YOUTH is on the threshold of an unique demographic dividend with young persons within the age group of 13-35 years comprising more than 40% of the total population of India. This cohort which is the most vibrant and dynamic segment of the country's population constitutes potentially its most valuable human resource. This "Youth Bulge" in the light of its impact on work participation and dependency ratios has been called a window of opportunity in terms of growth and development of our country, an opportunity which would need to be seized before the window closes. This poses its own challenges with reference to inclusive growth and the need to bridge divides. The requirements for this will transcend sectorial programmes, and would require a variety of interventions and programmes aimed at addressing the youth in a multidimensional manner.

The Ministry of Youth Affairs and Sports has been designated as the nodal Ministry for development and empowerment of youth and adolescents in the country. To achieve the goals of empowering and enabling the youth to become effective and productive participants, a *de novo* look at the existing policies, instruments and institutions, initiation of innovative policies, efficient, effective and creative ways to rejuvenate institutions have been taken up. Synergy and convergence of efforts with other Ministries/Departments have also been initiated.

"Sports" as an identifiable subject needs to be shown as an integral element of youth development. With a view to ensuring sport development as an integral aspect of youth development and youth development as critical to accelerated national development, the National Sports Policy 2001 lays special emphasis on "Broad basing of Sports" at the national and international levels. The Twenty Point Programme also speaks of "Yuva Vikas" or Youth Development by providing universal access to sports in rural and urban areas. The nation-wide rural sports infrastructure scheme christened the Panchayat Yuva Krida Aur Khel Abhiyan (PYKKA) aims at achieving the above mentioned objectives by providing basic sports infrastructure and equipment at the panchayat level and encouraging sports and games in rural areas through annual competitions at the block and district levels. PYKKA will help States in promoting sports at the grassroots level, which they have not been able to achieve on their own so far due to severe resource constraints. It will also deepen and widen the seedbed of sporting talent, leading to better performances by our sportspersons in national and international events.

YOUTH SERVICES

NATIONAL YOUTH POLICY, 2003

The first National Youth Policy was formulated and laid in Parliament in 1988. A need was felt to revise the existing National Youth Policy, as a result of rapid socio-economic transformation in the country. The new National Youth Policy, 2003 formulated by the Ministry of Youth Affairs and Sports, is designed to galvanise the youth to rise up to the new challenges, keeping in view the global scenario and aims at motivating them to be active partners in national development.

The age group of the Youth, as per the National Youth Policy, 2003, is 13 to 35 years. The New Policy recognises four thrust areas viz., (i) Youth Empowerment; (ii)

Gender Justice; (iii) Inter-Sectoral Approach; and (iv) Information and Research Network. The Policy includes eight key sectors for the development of youth. The Policy also identifies five priority groups of young people.

The Policy provides implementation mechanism through which various development programmes and activities will be undertaken for the youth with active involvement of the State Governments and Union Ministries and Departments. It has further been decided to review and revise the National Youth Policy, 2003 in the context of 11th Five Year Plan.

NATIONAL PROGRAMME FOR YOUTH AND ADOLESCENT DEVELOPMENT

The scheme titled National Programme for Youth and Adolescent Development (NPYAD) has been formulated by merger of four 100% central sector grants-in-aid schemes of the Ministry of Youth Affairs & Sports during 10th Plan namely, Promotion of Youth Activities & Training, Promotion of National Integration, Promotion of Adventure and Development and Empowerment of Adolescents, with a view to reducing the multiplicity of schemes with similar objectives and ensuring uniformity in funding pattern and implementation mechanism, avoiding delays in availability of fund to the field level and institutionalizing participation of State Governments in project formulation and its implementation. While there will be synergy and convergence in operation mechanism and programme delivery, there will be clear distinction with regard to the financial parameters of each of the components under the scheme. The Scheme has come into existence with effect from 1 April, 2008.

Under the scheme, proposals from All India Organisations are received directly and proposals from State Level Organisations through the concerned State Government/UT administration, duly verified by a designated State Level Screening Committee (SLSC), constituted for the purpose before recommending to the Ministry, indicating their priority.

The scheme is being implemented in the project mode through Project Implementing Agencies (PIAs). The PIA may submit project proposal involving one or more programme area or components under the scheme but the key factor for consideration of the project will be the past experience and resource (infrastructure and technical manpower) available with the PIA.

A duly constituted project appraisal Committee (PAC) headed by Secretary (Youth Affairs) in the Ministry of Youth Affairs and Sports considers the proposals. The recommendations of the PAC thereafter are placed for approval of the competent authority in the Ministry.

OBJECTIVES OF THE SCHEME

Short term objectives:

- Provide opportunity for holistic development of youth including adolescents for realisation of their fullest potential;
- Develop leadership qualities and personality development of youth and to channelise their energy towards socio-economic development and growth of the nation;
- Promote national integration, strengthen secular and eclectic outlook through creative expressions by youth;

- Foster the spirit of adventure, risk taking, teamwork, the capacity of ready and vital response to challenging situations and of endurance among youth;
- Acknowledge adolescents as a distinct subgroup among youth and address their distinct needs and at the same time provide positive stimulation and congenial environment for their all-round development; and
- To encourage research and publication and to promote technical resource support including development of information and database on issues concerning youth and adolescents.

Long - term objectives

- Engage and channelize the energy of youth in a positive manner for nation building;
- Develop amongst youth a sense of pride in nationally accepted values like democracy, socialism, and secularism;
- Promote activities and programmes, which foster social harmony and national unity among youth;
- Promote spirit of national integration, unity in diversity, pride in Indianness among the youth of different parts of the country and to induce a sense of social harmony amongst the youth;
- To motivate the youth to act as local point for dissemination of knowledge in the rural area and involve them in nation building process;
- To stimulate action for development and empowerment of adolescents, particularly from the economically and socially neglected/backward sections of society;
- To build and develop an environment which recognises the specific needs and promise of the adolescents in the country and provides for adolescent friendly services.

SCHEME BENEFICIARIES

Definition of youth and adolescent:- The Youth and Adolescents for the purpose of the scheme would be as defined in the National Youth Policy. In other words, the expression 'youth' would cover persons belonging to the age group of 13 to 35 years and 'adolescent' would cover persons in the age group of 10-19 years under the scheme.

Target youth and adolescents under the scheme:- The targeted beneficiaries of the programmes include members of the youth clubs affiliated to the Nehru Yuva Kendra Sangathan, National Service Scheme, State Government Youth Organisations, Bharat Scouts & Guides or students in Schools, Colleges and Universities. Adolescents and Youth from other established youth organisations or NGOs may be considered provided they are the registered members of such organisations. Preference may be given to the youth with special abilities and youth belonging to scheduled caste, scheduled tribes, minorities and weaker sections.

Gender budgeting:- In selection of beneficiary women will have a distinct priority and care should be taken to include at least one-third beneficiaries from women.

PROGRAMME AREA AND COMPONENTS

Programme Component:- The umbrella scheme will comprise of the following broad

programme area and their components:-

Name of the Programme Area	Programme Component
(a) Youth Leadership and Personality Development	i. Youth Leadership and Personality Development Training
(b) Promotion of National Integration	i. National Integration Camp
	ii. Inter-State Youth Exchange Programme
	iii. Multi-Cultural Activities
	iv. National Youth Festival
	v. State Youth Festival
	vi. National Youth Awards
(c) Promotion of Adventure	i. Promotion of adventure of basic and intermediate level in India.
	ii. Promotion of adventure of advance level including expeditions in India
	iii. Grants to Recognised Institutions.
	iv. Tenzing Norgye National Adventure Awards
(d) Development and Empowerment of Adolescents	i. Life Skills Education
	ii. Counselling
	iii. Career Guidance
	iv. Residential Camps
(e) Technical and Resource Development	i. Environment Building
	ii. Research & Studies on youth issues
	iii. Documentation & Publication
	iv. Seminars, Conferences, Exhibitions and Workshops on youth or adolescent issues, national integration and adventure.

Operational Guidelines:- There are prescribed operational guidelines of each programme area and the activities under each programme component, eligible institutions/organisations for financial assistance and their financial cost norms.

IMPLEMENTATION OF THE SCHEME

Eligibility:- The following organizations are eligible for financial assistance under the scheme.

- (a) All India Organisations (AIOs) i.e.,
 - i. Nehru Yuva Kendra Sangathan (Head Quarter) for Nehru Yuva Kendras;
 - ii. National Service Scheme (Programme Adviser Cell) for NSS Units;
 - iii. Bharat Scouts & Guides (Head Quarter) for their own Units;
 - iv. Universities including deemed Universities;
 - v. Association of Indian Universities and;
 - vi. Himalayan Mountaineering Institute, Indian Mountaineering Foundation, Jawahar Institute of Mountaineering and Winter Sports and other Adventure Institutes recognised by the Ministry;

- vii. Spic Macay;
- viii. National Youth Project;
- ix. India International Rural Cultural Centre
- x. Rajyoga Education & Research Foundation
- xi. The Energy & Resources Institute; and
- xii. R. K.Mission.

(b) State Level Organisations (SLOs) i.e.,

- i. State Governments, State Departments/ Directorates for Youth Affairs/Youth Welfare and other District Level Officers in States;
- ii. Panchayati Raj Institutions and Urban Local Bodies;
- iii. Educational Institutions including Polytechnics and
- iv. Non-government Organisations (NGOs) and Voluntary Agencies registered under the Societies Registration Act 1860 (or other appropriate state law). Public trusts and non-profit making companies who have completed atleast 3 years of registration on the date of application and have average annual programme expenditure of ₹ 5 lakhs or more during last 3 years.

Project Mode : The scheme will be implemented in the project mode through Project Implementing Agencies (PIAs). The PIA may submit project proposal involving one or more programme area or components under the scheme but the key factor for consideration of project will be the past experience and resource (infrastructure and technical manpower) available with the PIA. The following parameters are mandatory for formulation of project proposal by PIA.

- (i) Project area: The project proposal should have a well-defined geographical area and should clearly indicate targeted beneficiaries under the project. Ordinarily two to three districts in a state will constitute a project area. Adequate justification in terms of available infrastructure manpower and past experience of the organisation needs to be given for projects having more than one State/UT in the project area.
- (ii) Project Period: Ordinarily, the project should have a period of one year within which a number of activities can be planned. In case the project requires more than one year the same should be adequately explained in the project proposal.
- (iii) Phasing of Project: The project should have three phases i.e. Preparatory Phase (PP) Activity Phase (AP) and Follow-up Phase (FP). During Preparatory Phase environment building activities and identification/selection of the targeted beneficiaries should be taken up. This should be followed by the Activity Phase in which detail scheduling of activities should be organised. The Follow-up Phase should have evaluation of the impact of the project on the target youth and adolescents including the outcome of the project intervention with respect to its stated aims and objectives.
- (iv) Project Budget: The project budget should have programme component-wise cost estimate. The cost estimate under each component will have two sub-

heads i.e. (i) the contribution either in kind or cash to be provided by the PIA and (ii) the financial assistance sought from government under the scheme.

Project Appraisal Committee:- The proposals will be considered by a duly constituted Project Appraisal Committee (PAC) in the Ministry of Youth Affairs and Sports. The PAC will have members from the Planning Commission, Integrated Finance Division and Administrative Division in the Ministry apart from outside experts as would be necessary. The Ministry will stipulate separate budget provisions for AIOs and SLOs from within the annual budget allocated for the scheme. The recommendations of the PAC shall be placed for approval of the competent authority in the Ministry.

Release of funds to PIAs:- On approval of the project, grants-in-aid shall be released to the PIA up to 50% of the approved amount as 1st installment. In case of State/UT Governments, NSS and NYKS, advance up to 90% may be released. The balance shall be released on completion of the approved programme and on receipt of the required documents.

Submission of documents for balance installment: The following documents are required to be submitted for consideration of further release of funds:

- (i) Utilization Certificate by the guarantee in the form GFR-19(A).
- (ii) Performance Report showing, up to date item-wise physical and financial achievement with respect to sanction order.
- (iii) An undertaking stating that:
 - (a) All the terms and conditions of the financial sanctions have been adhered to;
 - (b) There is no deviation in respect of any stipulation of the sanction order including those relating to the age, number and category of the project beneficiaries;
 - (c) The amount for which reimbursement is sought from the Ministry is not claimed from any other source and the organisation shall indemnify the government for any deviation noticed later, if any.
- (iv) For release of final installment of fund in addition to the above three documents, the audited statement of account showing the total receipt of funds (from the Ministry and other sources including own resource) and total expenditure of the sanctioned project duly certified by a Chartered Accountant needs to be furnished.
- (v) No release of fund shall be considered in case the request for second/balance installment is received in the ministry after one year of the date of sanction order.

Funding for the previously sanctioned project: The projects, which have been sanctioned under the pre-revised scheme of the Financial Assistance for Promotion of Youth Activities & Training, Promotion of National Integration, Promotion of Adventure and the Scheme for Development and Empowerment of Adolescents shall continue to be funded under this scheme as per the financial amount approved earlier. The remaining amount towards second or final installment shall be released under the scheme as committed liability. Projects sanctioned under the pre-revised Scheme shall continue to follow the earlier scheme guidelines.

Revision of the scheme guidelines and cost norm: Any provision in the scheme guidelines cost norm may be modified/relaxed with the approval of the Secretary, Youth Affairs & Sports in consultation with the Financial Adviser in the Ministry. The decision of the Ministry with regard to modification/relaxation of any provision of the scheme shall be final and binding on the Project Implementing Agency.

PATTERN OF FINANCIAL ASSISTANCE

Typical Programme Components-The financial assistance from the government of India under the scheme will be catalytic funding and the PIA is free to mobilise additional resource from other collaborating agencies/ organizations for conduct of the programme. The amount of financial assistance may vary depending on the number of participants or the duration of any individual programme drawn, which may be different than the number of participants or number of days mentioned below against the each typical programme component.

The maximum ceiling for grants-in-aid to a PIA will be limited to ₹ 10 lakh for a district or the average programme expenditure of the IA during last 3 years, whichever is less. The Project Appraisal Committee may in case of AIOs and State Government Organisations with reasons to be recorded in writing, recommend project for more than ₹ 10 lakh for a district.

MONITORING AND EVALUATION

An institutional monitoring and evaluation system will be evolved for the monitoring and evaluation of the projects sanctioned under the scheme. Institutions such as RGNIYD, TOC, TORCs of NSS, IDARAs or any other reputed institution/NGO/VA may be designated as the Monitoring and Evaluation Institution (MEI) for the projects sanctioned in a State/UT.

Funds for the monitoring and evaluation will be released to the MEIs from the budget under the scheme. The PIA shall produce all records connected with the project to the MEI for the monitoring and evaluation purpose.

The MEI visit the project authority on a quarterly basis and submit quarterly Progress Reports (GPRs) about the performance of the project to the Ministry under intimation to the concerned State/UT government. The MEI will also submit an end term evaluation report on completion of the project. The receipt of QPRs and evaluation report however will not hold the subsequent release of the funds to the Project Authority.

The Ministry of Youth Affairs & Sports, apart from the monitoring and evaluation done by the MEIs, may also conduct concomitant evaluation of the scheme/projects for evaluation study in terms of its intended outcome and benefits for youth.

Activities and Achievement in the North East Region including Sikkim

The Ministry has sanctioned an amount of ₹ 195 lakhs for various activities/ programmes under the Umbrella Scheme "National Programme for Youth and Adolescent Development". Out of this, ₹ 193.98 lakhs, as 1st instalment, has been released to various Voluntary Organisations in the North East Region.

Ministry of Youth Affairs & Sports in collaboration with the State Government of Orissa organized the 15th National Youth Festival at Bhubaneswar, Orissa from 8 to 12 January, 2010. The theme of the Festival was "Celebrating Diversity." About 2500-3000 youth from all over the country including all North Eastern States participated in the 5 day Festival. Activities such as Yuva Kriti, Young Artists Camp.

Food Festival, Kavi Sammelan, Rock Band and Adventure programmes formed important components of the largest youth festival being organized in the country.

The First North-East Youth Festival was organised jointly by the Department of Youth Affairs, Government of India and Nagaland Government at Indira Gandhi Stadium at Kohima from 8 to 10 October 2009. About 1300 youth from all over the country including all the north-eastern states participated in the festival. A number of competitive events like Rock Band Contest, One Act Play, Folk Dance, Folk Music etc. were a part of the event. Nehru Yuva Kendra Sangathan also set up an exhibition displaying arts and crafts from various parts of the country in Yuva Kriti.

NATIONAL SERVICE SCHEME

National Service Scheme (NSS) is a noble experiment in academic expansion. It inculcates the spirit of voluntary work among the students and teachers through sustained community interactions. Over the years, NSS has emerged as India's student youth movement in linking with the community.

National Service Scheme, popularly known as NSS was launched in Gandhiji's Birth Centenary year-1969, in 37 universities involving 40,000 students, with primary focus on the development of personality of students through community service. Today, NSS has more than 3.2 million student volunteers on its roll spread over 208 Universities in 10,313 colleges/institutes of higher and technical education and 7542 Secondary Schools all over the country.

The National Service Scheme has two types of programmes, viz. "Regular Activities" and "Special Camping Programmes" undertaken by its volunteers. Under 'Regular Activities', NSS volunteers devote 120 hrs per year for two consecutive years, which includes 20 hrs. of general orientation regarding NSS and the mode of work they have to do in their volunteership. During this period they work in their adopted villages/slums in the field of cleanliness, adult education, environment conservation/protection, etc.

Special Camping provides unique opportunities to the students for group living. Collective experience sharing and constant interaction with community. Special Camping programmes are organized generally on various developmental issues of national importance. The current theme of Special Camping is Healthy Youth for Healthy India. Every Year 50 per cent of the volunteers of each NSS Unit are expected to participate in Special Camps which is of 7 days duration.

Union and State Governments jointly fund this programme in the ratio of 7:5 in all States except North East Region. Sikkim and Hilly Terrains where the ratio is 3:1. In J&K and all the Union Territories, Kendriya Vidyalayas and Navodaya Vidyalayas the programme is fully funded by the Government of India. As per the existing norms of the scheme, expenditure of ₹ 160/- per volunteer per annum for Regular Activities and ₹ 300/- per volunteer per annum for Special Camping Programme is admissible for the states in rest of India. For North Eastern (NE) States including Sikkim, Himachal Pradesh and other hilly areas notified by the Planning Commission the present unit cost norms are ₹ 200/- and ₹ 400/- for regular activities and special camping programmes respectively. At State level, State NSS Cells are established by Central Government with full financial support to look after the inter-departmental coordination for smooth implementation of the programme at the State level.

At National level, the Ministry of Youth Affairs & Sports looks after policy planning and monitoring of the scheme. A Programme Advisor's Cell headed by a

Programme Adviser has been entrusted with assessing and monitoring the targets set for students under NSS, and those under Special Camping Programme. 15 Regional Centres are functioning in various States under the control of Deputy or Assistant Programme Advisor or Youth Officer.

To train the NSS Programme Officers and to equip them with modern skills of social development, five orientation Training and Research Centres (TORCs) and 13 Training and Orientation Centres (TOCs) are working all over the country which are funded by the Govt. of India. These institutions run orientation as well as refresher courses for the field functionaries associated with the NSS volunteers.

In the year 2009-10 there is a target to enroll 32.57 lakh volunteers for Regular activities against which 32,57,104 volunteers have been actually enrolled. A number of 9121 Special Camps are to be organised in adopted villages.

During the Pulse Polio Immunization Campaign 7,68,925 children were benefited in which 1,18,352 volunteers were involved. 35242 Units of Blood were donated by NSS Volunteers. Apart from this regular blood donation camps, the National Voluntary Blood Donation Day was observed throughout the country.

Special NSS camps were organized for conducting relief and rehabilitation work in the flood affected villages of North Karnataka involving removing of silt, creating awareness on prevention of epidemic, cleaning of debris of collapsed houses, cleaning of drainage systems etc.

Rajiv Gandhi Adventure Scheme

With a view to promote adventure activities among student youth, Rajiv Gandhi Adventure Scheme was launched on 26 June, 2009 to be conducted all over the country from Himalayan region in the North and in Kunnur and Tekkadi in South India; on a yearly basis for 2000 NSS volunteers with at least 50% of the volunteers being girl students. The adventure activities to be undertaken in these camps include trekking (mountain and desert), white water rafting, para-sailing, para-gliding and basic skiing

Mega Summer Camp

A Mega-Summer Camp of 400 students has been introduced, for a 12 day duration, which will be held every year in the months of May-June, in one of the four regions North, East, South and West-excluding Delhi. The first mega summer camp was held from 22nd June 2009 to 3rd July, 2009, in Rajiv Gandhi National Institute of Youth Development (RGNIYD). The theme of the Camp is aimed at promoting volunteerism and citizenship. The areas of involvement focused on health, environment and rural development.

Pre-Republic Day and Republic Day Camps

NSS volunteers participate in the Republic Day Parade on Rajpath every year. To select the marching contingent, 5 Pre-Republic Day Parade Camps were organised at Guwahati, Jamshedpur (Tatanagar), Pune, Gurgaon and Bangalore. One thousand NSS Volunteers (after initial selection) and NSS Programme Officers participated in these camps. Out of the 1000 volunteers, 200 volunteers were finally selected to take part in the month long Republic Day Camp at New Delhi in January.

INDIRA GANDHI NSS AWARDS

In 1993-94, during the Silver Jubilee Year of NSS, the IGNSS Awards were instituted to give recognition to selfless service rendered by the NSS volunteers programme

officers and the programme coordinators. This award is given away in a ceremony during the National Youth Festival (12th to 16th January) every year.

YOUTH FESTIVAL

Every year NSS participates in the National Youth Festival. Two events such as National Youth Convention and Suvichar are held during the Youth Festival in which around 200 NSS volunteers from different parts of the country participate. During these programmes, the volunteers get the opportunity to interact with eminent personalities.

Evaluation Study

In order to take a holistic view of functioning of NSS, Tata Institute of Social Sciences (TISS) was entrusted with conducting an "Evaluation Study of NSS in India". The specific objectives of this study inter-alia included reviewing the planning and implementation of the existing NSS activities in different zones; assessing its impact and sustainability, examining the structure and functioning of the existing of administrative and financial mechanisms etc. The important recommendations of TISS are being implemented through Expenditure Finance Committee.

NEHRU YUVA KENDRA SANGATHAN

The Nehru Yuva Kendra Sangathan (NYKS) is an autonomous organisation of the Ministry of Youth Affairs and Sports. NYKS has its offices in 501 districts and 28 zonal offices of the country. It has become one of the largest grassroot level organizations in the world, catering to the needs of more than eight million non-student rural youth enrolled through 3.05 lakh village-based Youth Clubs. It is proposed to extend NYKS to the remaining 122 districts during the current plan period. These Youth Clubs work in the areas covering education and training, awareness generation, skill development and self-employment, entrepreneurial development, thrift and co-operation, besides development of the body through sports and adventure and mind through sustained exposure to new ideas and development strategies. For implementation of the programmes, every district NYK has a network of trained cadre of District Youth Coordinators, National Service Volunteers and Youth Leaders. The strength of NYKS is its vast network of Youth Clubs at grassroots level.

NYKS accomplishes its task through two categories of programmes, i.e., 'Regular Programmes' such as Youth Club Development, Vocational Training, Work Camp, Awareness Generation, Cultural Programme, Sports Promotion, Adventure Promotion, Seminars and Workshops and Celebration of National and International Days/Weeks and 'Schemes' entrusted to it by the Ministry for implementation viz., National Service Volunteers, Financial Assistance to Youth Clubs, Awards to Outstanding Youth Clubs at District, State and National level and Youth Development Centre. Special programmes are undertaken in collaboration with other Ministries and organizations.

NATIONAL YOUTH CORPS

A new Scheme—National Youth Corps (NYC) by amalgamating the two existing schemes—the National Service Volunteer Scheme (NSVS) and the Rashtriya Sadhbavana Yojana (RSY) has been introduced. The Scheme would enable young men and women in the age group of 18-25 years to serve up to two years in nation building. The Scheme envisages enrollment of 20,000 volunteers, of which 8,000 will

be deployed in Jammu and Kashmir and 12,000 volunteers in other States. The Scheme will be implemented by Nehru Yuva Kendra Sangathan (NYKS). The scheme has come into force from 1st April 2010.

Objectives

- To set up a group of disciplined and dedicated youth who have the inclination and spirit to engage in the task of nation building.
- To facilitate the realization of inclusive growth (both social and economic).
- To act as points for dissemination of information, basic knowledge in the community.
- To act as group modulators and peer group educators.
- To act as role models for the younger people specially towards enhancement of public ethics, probity and dignity of labour.

Eligibility

Young men and women falling in the age group of 18-25 would be eligible to become volunteers.

Qualification : Class 10th pass and above in special category states like North East and J&K and 12th Pass and above in respect of other states.

Training

The volunteers will be provided modular employability training in the last quarter of their engagement.

Honorarium

The volunteers will be paid an honorarium of ₹ 2500/- per month for their engagement upto two years (including the period of training which will be for 4 week) in the identified development activities.

NATIONAL YOUTH AWARDS

Department of Youth Affairs, Ministry of Youth Affairs and Sports presents National Youth Awards every year to motivate young persons to achieve excellence in the field of national service and to encourage them to develop a sense of responsibility to their community and to improve their own potential as good citizens and young leaders.

The Award consists of a silver medal, a shawl, a certificate and a cash prize of ₹ 40,000/- to the individual award winners and ₹ 2 lakhs to the voluntary organization.

Keeping in mind the views of the National Selection Committee which considered Awards for the year 2007-08 certain modification were made by the Ministry for selection process. For the first time, the Ministry advertised the awards on an all India basis. It was also decided that the Awards hereinafter will be theme based. The current year's theme is "Environment Protection including Rain Water Harvesting". These awards are given away normally during the five-day National Youth Festival by the Chief Guest.

National Youth Awards for 2008-09 were presented to 24 individuals and 1 voluntary organization during the 15th National Youth Festival held at Bhubneswar from 8 to 12 January, 2010.

Tenzing Norgay National Adventure Award

The Tenzing Norgay National Adventure Award is the highest national recognition for outstanding achievements in the field of adventure on land, sea and air. A cash Award of Rs. 3,00,000 a statue and a scroll of honour is given to each awardee. This award is at par with the Arjuna Award for sporting excellence.

Tenzing Norgay National Adventure Awards are given away by the President of India alongwith Arjuna Awards, at a function held in Rashtrapati Bhavan on the 29 August every year. Awards for the year 2009 were conferred on Sqn Ldr Ramakant (Air Adventure), Ms. Chaitanya Datla (Water Adventure), Shri Bachinapally Shekhar Babu (Land Adventure) and Major HPS Ahluwalia (Life Time Achievement) by Smt. Pratibha Devisingh Patil the President of India, at Rashtrapati Bhavan.

YOUTH HOSTELS

Youth Hostels are built to promote youth travel within the country. The construction of the Youth Hostels is a joint venture of the Central and the State Governments. While the Central Government bears the cost of construction, the State Governments provide fully developed land free of cost. Youth hostels are located in areas of historical and cultural value; educational centre; tourist importance etc. where facilities for youth activities are most necessary. 15 of our functional Youth Hostels are in State Capitals. These hostels provide good accommodation for the youth at reasonable rates.

As on February, 2009 an amount of ₹ 2,48,37,653/- were released towards construction purposes in General Category States. A sum of ₹ 75 lakhs was released for the construction in North East States.

As on 31 December, 2009, 80 Youth Hostels have been constructed across the country and 5 more youth Hostels were at various stages of construction.

Some of the major initiatives taken under the Youth Hostel Scheme are :

- With a view to facelift the Youth Hostels falling enroute Queen's Baton Relay, 20 Youth Hostels were short listed wherein ₹ 5 lakhs per Hostel was released.
- The furnishing norms of the new Hostels were enhanced.
- With a view to impart efficient management system in hostels, the method of recruitment of the Youth Hostel Wardens (now designated as Managers) has been changed. Moreover, Youth Hostel Receptionist/Care Takers are been appointed.
- The construction methodology of new Hostel has been reviewed with a view to optimize the plinth area usage and ensure completion of the projects within time in order to minimize cost and time over run.
- Hostels which are not properly located/managed are to be put for alternate use.

A new Youth Hostel at Taran Taaran with State of the Art Technology and modern facilities has been completed in a record time of nine months. A Youth Hostel at Outy (Tamil Nadu) has also been built in 2009.

NATIONAL YOUTH FESTIVAL

Every year, the Ministry of Youth Affairs and Sports has been celebrating the birthday of Swami Vivekananda, the great philosopher and thinker. Earlier, the National Youth Festival was celebrated from 12 - 16 January. Now it has been decided to celebrate the Festival from 8th to 12th January every year. Holding of National Youth Festival began

in 1995 as a major activity under the programme of National Integration Camp (NIC). The idea behind a Youth Festival is to organize a gathering of the youth so that the concept of National Integration, spirit of communal harmony, brotherhood, courage and adventure may be propagated. Like the National Youth Festival, States are also encouraged to hold State level, district level and block level youth festivals.

RAJIV GANDHI NATIONAL INSTITUTE OF YOUTH DEVELOPMENT

Rajiv Gandhi National Institute of Youth Development (RGNIYD) a Deemed University under section 3 of University Act 1956 was set up as an autonomous body by the Department of Youth Affairs and Sports, Ministry of Human Resource Development, Government of India and registered under Societies Registration Act, XXVII of 1975 S.No. 67 of 1993. It has emerged as the professional resource agency, and acts as a think-tank of the Ministry of Youth Affairs and Sports, and assists the Government and Non-government agencies in youth related activities. As the apex Institute at the national level, it works in close cooperation with the NSS, NYK and other youth organisations in the implementation of training programmes. The Institute is a nodal agency for training youth and a facilitator of youth development activities in rural as well as in urban areas.

The institute is provided with the essential facilities and infrastructure so that it would serve as a Centre of Advanced Study and applied Research for ensuring availability of professional expertise in youth work and to create a competent cadre of youth workers. As a regular feature of its functional activities, the institutes has launched a number of research projects and extension programmes to unearth the potential in the young people which perhaps remains untapped. It provides a forum for youth to debate and discuss issues that concern them as well as those that impinge on their development.

Rajiv Gandhi National Institute of Youth Development has been playing a vital and catalytic role at the national level as the apex institute for Training, Research, Action, Consultancy, Dissemination and Documentation activities in the field of youth development.

This institute has five Divisions besides the Administrative Division, each under a Faculty Head. On being declared a deemed University in 2008, RGNIYD has launched 5 Master level academic programmes aiming at professionalizing the concept of youth work through which empowerment of youth can be achieved. The academic programmes are Master of Arts. In 1) Youth Empowerment, 2) Career Counseling, 3) Gender Studies, 4) Local Governance and 5) Life Skills Education.

An important mandate of the institute is the formulation of Core Training Materials, Training Manuals and Special Modules to impart specific inputs in different areas which are replicable in any part of the country. The institute does this through consultations with experts in the specific area to prepare the modules which are then refined and revised after pilot testing among the stakeholders.

The Institute has prepared and brought out several modules/manuals viz Social Harmony and National Unity, Career Guidance for Teachers, Life Skills for Adolescents, Gender Equity and Youth, Model Youth Clubs, Leadership and Personality Development, Tribal Youth as Social Animators, Training Youth in Citizenship Rights and Social Harmony, Youth in Border Districts and NSS Training Manual.

INTERNATIONAL COOPERATION

Commonwealth Youth Programme (CYP)

The Commonwealth Youth Programme (CYP) vision is to work towards a society where young women and men are empowered by developing their potential creativity and skills as productive and dynamic members of their societies. These young men and women are enabled to participate fully at every level of decision making development successfully, promoting Commonwealth values of international co-operation, social justice, democracy and human rights. This programme came into being in 1974 with the overall purpose of promoting the development of youth in the Commonwealth. This programme encourages and supports the youth in the process of national development and provides opportunities for increasing international understanding.

CYP Asia Centre at Chandigarh is one of the four CYP Regional establishments along with the Centres in Lusaka (Zambia) for the Africa region, Georgetown (Guyana) for the Caribbean region and Solomon islands for the South Practice Region. The overall responsibility for CYP lies with the Commonwealth Secretariat at London. The activities of the CYP including the Asia Centre are directed by Youth Affairs unit of the Commonwealth Secretariat. The Asia Centre meets the specific needs of eight Commonwealth Countries of the region, namely, Brunei Darussalam, Bangladesh, India, Pakistan, Malaysia, Maldives, Singapore and Sri Lanka.

At present, there are three major strategic areas on which Commonwealth Youth Programme is concentrating :

- National Youth Policy;
- Human Resource Development, and
- Youth Empowerment.

The programmes are financed by member countries and India.

Exchange of Youth Delegation at International Level

The department endeavors to create an international perspective in collaboration with other countries and international agencies/organizations on various youth issues. The Department also collaborates with the Commonwealth Youth Programme Asia Centre, Chandigarh, in organizing a number of events concerning youth in commonwealth countries in the Asia-Pacific Region.

Under this programme, exchange of Youth Delegations with friendly countries is taken up on reciprocal basis for promoting exchange of ideas, values and culture amongst the youth of different countries and also to develop international understanding. Exchange of Youth Delegations were organized with China, Republic of Korea and training course on "Nature Conservation" and "Vocational Training Education" under the training programme for young Leaders was organized by Japan International Cooperation Agency (JICA).

SCOUTING AND GUIDING

Scouting and Guiding is an international educational movement aimed at developing the character of boys and girls. It inculcates in them a spirit of patriotism, sympathy for others and social service. Bharat Scouts and Guides mainly promote these activities in India. The Ministry of Youth Affairs and Sports extends financial assistance for the activities including adult literacy, tree plantation, community service, leprosy awareness, promotion of hygiene and sanitation etc.

SPORTS

Sports and games have always been seen as an integral component in all round development of human personality. Apart from being means of entertainment and physical fitness, sports have also played a great role in generation of spirit of healthy competition and bonding within the community. Achievement in sports have always been a source of national pride and prestige.

However, unlike in the past the modern sports have become highly competitive. The use of modern equipments, infrastructure and advanced scientific support has changed the scenario of sports at international level. Keeping in line with the growing demands of advanced equipments, infrastructure and scientific support, Government of India has taken lot of initiatives. However, these efforts could not produce significant results on account of policy and inadequate budgetary support.

NATIONAL SPORTS POLICY 2001

In order to broad-base sports and to promote excellence, the Government has formulated a National Sports Policy, 2001. The salient features of the Policy are :

1. Broad-basing of Sports and achievement of excellence;
2. Upgradation and development of infrastructure;
3. Support to the National Sports Federations and other appropriate bodies;
4. Strengthening of scientific and coaching support to sports;
5. Incentives to promote sports;
6. Enhanced participation of women, Scheduled Tribes and rural youth;
7. Involvement of the Corporate Sector in sports promotion; and
8. Promote sports mindedness among the public at large.

SPORTS AUTHORITY OF INDIA

The Sports Authority of India (SAI) was established by the Government of India in January 1984 as a registered society primarily to ensure effective maintenance and optimum utilisation of the various sports infrastructure that were built in Delhi during Asiad, 1982. It is now the nodal agency in the country for broad-basing sports and for training of sportspersons to achieve excellence in national and international sports. The Society for National Institute of Physical Education and Sports (SNIPES) was merged with SAI with effect from 1st May 1987. Subsequently, Netaji Subhash National Institute of Sports (NSNIS), Patiala and its allied centres at Bengaluru, Kolkata and Gandhinagar and Lakshmi Bai National Colleges of Physical Education at Thiruvananthapuram came under Sports Authority of India (SAI). The LNCPE, Gwalior was, however, delinked from SAI in September 1995 on attaining the Grade of a Deemed University. (now renamed as LNUPE, Gwalior). It has now six regional centres at Bengaluru, Gandhinagar, Kolkata, Chandigarh, Bhopal and Imphal and two sub-centres at Guwahati (Assam) and Lucknow (U.P.). Sports infrastructure is being created at Sonapat and the Northern Regional Centre would be shifted from Chandigarh to Sonapat. SAI has one Centre at Guwahati. SAI also operates a High Altitude Training Centre (HATC) at Shilaroo (H.P.).

SAI is also entrusted with the responsibility of maintaining and utilizing the stadia in Delhi on behalf of Government, Ministry of Youth Affairs and Sports. The stadia are : Jawaharlal Nehru Stadium, Indira Gandhi Stadium, Major Dhyan Chand

National Stadium, Dr. Shyama Prasad Mukherjee Swimming Pool Complex and Dr. Karni Singh Shooting Range.

SAI operates various schemes at sub-junior, junior and senior level, namely, National Sports Talent Contest (NSTC), Army Boys Sports Company (ABSC), SAI Training Centres (STC) and Special Area Games (SAG) to achieve excellence at national and international level. SAI has also set-up Centres of Excellence (COE) for elite sports persons at each of its Regional Centres and one at National Institute of Sports, Patiala.

LAKSHMIBAI NATIONAL INSTITUTE OF PHYSICAL EDUCATION

The Lakshmbai National Institute of Physical Education was established initially as a College on 17th August 1957, the centenary year of the first war of India's Independence. The University is located at Gwalior, where Rani Lakshmbai of Jhansi had laid down her life for the country's freedom struggle. In recognition of the services rendered in the field of physical education and sports by the Institute, it was upgraded to a 'Deemed University' in 1995 and has now been renamed as Lakshmbai National University of Physical Education (LNUPE), w.e.f 14 January 2009. The Institute is fully-funded by the Government of India. The North-East Campus of LNUPE Gwalior came into existence in the current academic year i.e. 2009-10

The Institute offers the following full-time courses: (1) Bachelor of Physical Education (B.P. Ed.) (4 years degree course); (2) Master of Physical Education (M.P. Ed.) (2 years course); (3) M. Phil in Physical Education (1 year course); and (4) Ph.D in Physical Education.

Apart from the above, following PG diploma courses are also being conducted by the Institute :

(a) Information Technology; (b) Sports Management; (c) Sports Journalism; (d) Yoga & Alternate Therapy; (e) Sports coaching.

The Institute also conducts in-service training programmes in physical education for ex-army personnel, refresher/orientation course for physical education teachers in universities, colleges and schools. The Institute attracts students from abroad also.

PANCHAYAT YUVA KRIDA AUR KHEL ABHIYAN (PYKKA)

The Government launched a national programme titled 'Panchayat Yuva Krida Aur Khel Abhiyan' (PYKKA) in 2008-09 for the creation of basic sports infrastructure in all village and block panchayats of the country over a period of 10 years and organizing sports competitions at block, district, state and national levels. All the 2,50,000 village and block panchayats and equivalent units will be covered during the period. The scheme will not only contribute to public health and social inclusiveness, but also stimulate the economic activities within the sports sector, as it would lead to an exponential growth in the demand for sports instructors, coaches, sports equipment and consumables and sports events and related support services. Promotion of indigenous games and the expansion of the talent pool through the identification and nurturing of rural sports talent, are some of the major benefits of the scheme.

Under the programme financial assistance shall be given to a village/block panchayat for the following purpose :

One-time Seed Capital Grant : For development of sports infrastructure, ₹ 1 lakh to each village panchayat having minimum 4,600 population (national average) with additional funding on prorata basis for additional population size beyond the national

average. This is contributed on 75:25 basis between the Central Government and State Governments for normal States and on 90:10 basis for Special Category States.

For block panchayats : Grant of ₹ 5 lakh is to each block panchayat is provided for development of sports infrastructure. The sharing pattern between the Central Government and State Governments is 75:25 for normal States and 90:10 for Special Category States.

Annual Acquisition Grant : For a period of five years for acquisition of sports equipment, accessories, support fixtures, consumables and repair and maintenance. Beyond five year it will be the responsibility of the State Government/Local body to fund this component. The grant is hundred per cent central grant and a sum ₹ 10,000 per annum to each village panchayat and ₹ 20,000 per annum to each block panchayat is given.

Annual Operational Grant : For a period of five years to meet the operational expenses of non competition activities including the honorarium to Kridashrees, maintenance of infrastructure etc. Beyond five years it will be the responsibility of the State government to fund this component. This grant is also hundred per cent and a sum ₹ 12,000 per annum to each village panchayat and ₹ 24,000 per annum to each block panchayat is granted.

Annual Competition Grant : For organizing tournaments at block, district, state and national levels as per details given below :

- a) ₹ 50,000 per annum to each block panchayat for organizing block level competitions;
- b) ₹ 3 lakh per annum to each district for holding district level competitions;
- c) ₹ 10 Lakh per annum to each State and ₹ 5 Lakh to each UT per annum for holding State/UT level competitions.
- d) ₹ 70 Lakh per annum for holding national level competitions.

Annual competition grant is a 100 per cent Central grant.

Prize money at ₹ 25,000, ₹ 15,000 and ₹ 5,000 as 100% Central Grant to first three village panchayats at the block level tournaments (all 6373 blocks) and at ₹ 50,000, ₹ 30,000 and ₹ 10,000 as 100% Central Grant to the first three block panchayats at the district level tournament (all 607 districts).

Mission Outlay

The Mission outlay for the Eleventh Plan is more or less restricted to the allocation of ₹ 1,500 crore made by the Planning Commission. The requirement of funds for the Eleventh Plan is projected at ₹ 1,567 crore. The requirement of funds for the Twelfth Five Year Plan has been projected at ₹ 2,887 crore without any inflation indexing. The total for the two plan periods comes to around ₹ 4,455 crore.

Budget allocation in 2009-10 was ₹ 160 crore which has now been reduced at RE stage to ₹ 135 Crore. Besides releasing grants against approved projects last year, proposals of 5 States were approved by the Executive Committee meeting held on 29th October, 2009 with sanction of ₹ 14.64 Crore for covering 1234 village panchayats and 53 block panchayats in 2009-10.

Financial Assistance

A sum of ₹ 125 crore was provided for PYKKA during the year 2008-09. But owing to cut in the overall budget of the Ministry, it was reduced to ₹ 92 crore. Out of the total of 35 States/UTs, proposals from 26 States/UTs were received. Proposals of 24 States/

UTs were approved. A total number of 22854 Village Panchayats and 601 Block Panchayats have been covered. A sum of ₹ 250.78 crore was sanctioned, out of which, a sum of Rs. 83.87 crore was released towards first installment to 19 States which have fulfilled the conditions. Out of total sum of ₹ 92 crore a sum of ₹ 8.15 crore has also been released to Sports Authority of India to hold competitions.

During the current financial year (2009-10) allocation of ₹ 160 crore has been provided. Financial assistance of ₹ 14.61 crore has been sanctioned to five States/UTs covering 1261 village panchayats and 53 block panchayats. Funds amounting to ₹ 106.56 crore have been utilized so far.

COMMONWEALTH GAMES, 2010

Commonwealth Games, 2010 were hosted in Delhi from 3rd October to 14th October. For successful conduct of the Commonwealth Games, a comprehensive integrated approach was worked out for creation and development of world class sports infrastructure, Games Village, Civic Infrastructure, Tourism, Transportation and Security.

A number of institutional arrangements were made for ensuring proper planning and timely preparation for the Commonwealth Games, 2010. These included a Group of Ministers (GOM) under the chairmanship of Minister for Urban Development for coordinating various works related to the conduct of the Games, an Apex Committee headed by Minister for Youth Affairs & Ministers for overseeing and coordinating various matters related to CWG 2010; the Organizing Committee under the chairmanship of President, Indian Olympic Association for the conduct of the Games and a Committee of Secretaries headed by the Cabinet Secretary which was responsible for monitoring the implementation of the decisions of the GOM and taking decisions on other related matters. In addition to these arrangements at the Central level, there was a sub-committee under the Chief Minister of Delhi to take decisions in respect of all matters pertaining to infrastructure and other preparation for the games within the jurisdiction of the Government of NCT of Delhi. Lt. Governor of Delhi was entrusted with the overall responsibility with specific reference to security, law and order and matters coming under Delhi Development Authority (DDA).

All the stakeholders indicated their specific timelines with reference to key milestones, viz., finalization of detailed design and estimates, commencement of tendering process, award of work, commencement of work, completion of work and handing over to Organizing Committee. 71 countries participated in these games. India won 101 medals including 39 Gold, its highest ever and stood second in the tally behind Australia with a total of 177 medals.

SCHEME OF ASSISTANCE TO NATIONAL SPORTS FEDERATIONS

Under this scheme, the Government of India provides assistance to National Sports Federations (NSFs) for conducting National Championships and International Tournaments in India, participation in international tournaments abroad, organizing coaching camps, procuring sports equipment, engagement of foreign coaches and disbursement of salaries to the Joint/Assistant Secretaries engaged by NSFs.

During the year 2009-10, Government incurred an expenditure of ₹ 41 crore under Plan and ₹ 3 Crore under Non-Plan on account of proposals received from NSFs for foreign exposure and for holding International Tournaments/National Championships. The expenditure also included funds released for Coaching camps,

providing equipment, engaging foreign coaches and salaries of Joint/Assistant Secretaries of the NSFs.

SCHEME RELATING TO TALENT SEARCH AND TRAINING

Under this Scheme, assistance is provided to promising sportspersons for training and training-cum-competitions in India and abroad, for purchase of equipment and scientific support. Supporting personnels such as coaches, sports scientists, doctors masseurs etc. are also assisted for undergoing specialized training and for attending seminars/conferences and major international sports events and for appearing in qualifying examinations. This scheme is implemented through Sports Authority of India (SAI).

During 2009-10, assistance of ₹ 25 lakh has been sanctioned for 5 sportspersons.

NATIONAL SPORTS DEVELOPMENT FUND

National Sports Development Fund (NSDF) was instituted by the Central Government with a view to mobilize resources from the Government as well as non-governmental sources, including the private/corporate sector and non-resident Indians, for promotion of sports and games in the country. In order to make contributions to the Fund, attractive 100% exemption from income tax is available on all contributions. To begin with, the Government made a contribution of ₹ 2 crore during the year 1998-99. Further Government contribution is on matching basis to the contributions received from the other sources. The corpus of the fund was ₹ 63.70 crore as on 31st December 2009. The funds available under NSDF were used towards promotion of sports in general and specific sport disciplines and individual sportspersons for achieving excellence at the national and international level in particular; imparting special training and coaching in relevant sport disciplines to sportspersons, coaches and sports specialists; to construct and maintain infrastructure as may be required for promotion of excellence in sports; to supply equipment to Governmental and Non-Governmental organizations and individuals with a view to promote excellence in sports; to identify problems and take up research and development studies for providing support.

SCHEME RELATING TO INCENTIVES TO SPORTS PERSONS

The Ministry of Youth Affairs and Sports implements various schemes as incentives to sportspersons to take up sports:

RAJIV GANDHI KHEL RATNA AWARD

The scheme was launched in the year 1991-92 with the objective of honouring sportspersons to enhance their general status and to give them greater dignity and place of honour in society. Under this scheme an amount of ₹ 7.5 lakhs and a medal are given as award for the most spectacular and outstanding performance by a sportsperson in the preceding year.

ARJUNA AWARDS

The Arjuna Awards were instituted in 1961. To be eligible for the Award, a sportsperson should not only have had good performance consistently for the previous three years at the international level, with excellence for the year for which the Award

is recommended but also should have shown qualities of leadership, sportsmanship and a sense of discipline. The Awardee is given a statuette, a scroll of honour, ceremonial dress and a cash award of ₹ 5 lakhs. Not more than 15 awards are given every year. 649 outstanding sportspersons from various disciplines have been conferred with this Award so far.

DHYAN CHAND AWARD FOR LIFETIME ACHIEVEMENTS IN SPORTS AND GAMES

Dhyan Chand Award for lifetime achievement in sports and games instituted in the year 2002 is given to honour those sportspersons who have contributed to sports by their performance and continue to contribute to promotion of sports even after their retirement from active sporting career. The award carries a cash of ₹ 5 lakh, a statuette, a scroll of honour and ceremonial dress. Twenty Five sportspersons have been given this award since its inception.

DRONACHARYA AWARD

The Dronacharya Award, instituted in 1985, honours eminent Coaches who have successfully trained sportspersons or teams and enabled them to achieve outstanding results in international competitions. The awardee is given a statuette of Guru Dronacharya, a scroll of honour, ceremonial dress and a cash award of ₹ 5 lakh. Not more than 5 awards are given every year. Fifty Five coaches have been given this award since its inception.

MAULANA ABUL KALAM AZAD (MAKA) TROPHY

The Maulana Abul Kalam Azad (MAKA) Trophy was instituted in 1956-57. The top overall performing University in the Inter-University Tournaments is given the Maulana Abul Kalam Azad (MAKA) Trophy, which is a rolling trophy. A small replica of the MAKA Trophy is also awarded for retention by the University. In addition, the University also gets a cash prize of ₹ 10 lakh. The second and third best universities also receive cash awards amounting to ₹ 5 lakh and ₹ 3 lakh respectively.

RASHTRIYA KHEL PROTSAHAN PURUSKAR

With a view to recognize the contribution made to sports development by entities other than sportspersons and coaches, Government has instituted a new award entitled Rashtriya Khel Protsahan Puruskar from the year 2009, which has four categories, namely, community sports development, promotion of sports academies of excellence, support to elite sportspersons and employment to sportspersons. The awards consist of a citation and a trophy in each of the above mentioned categories. There is no cash award.

SPECIAL AWARDS TO WINNERS IN INTERNATIONAL SPORTS EVENTS AND THEIR COACHES

This scheme was introduced in the year 1986 to encourage and motivate outstanding sportspersons for even higher achievement and to attract the younger generation to take sports as a career. Under the scheme, special cash awards are given to sportspersons and their coaches for winning medals in recognized international sporting events held in a year. The amount of cash given is as follows:

Name of Championship/Game	Gold Medal First Position	Silver Medal Second Position	Bronze Medal Third Position
Olympic Games	₹ 50 lakhs	₹ 30 lakhs	₹ 20 lakhs
Official World Cups/Asian Games/Commonwealth Games	₹ 10 lakhs	₹ 5 lakhs	₹ 3 lakhs
Asian and Commonwealth Championships	₹ 3 lakhs	₹ 2 lakhs	₹ 1.5 lakhs

Cash award is also given to coaches. The coaches who have trained the medal winners for at least 240 days immediately preceding the game are eligible for cash award under the scheme. Award money to a coach is 50% of the award money given to the sportsperson whom he had coached. In case, there is more than one coach associated with a sportsperson the award money is distributed among them equally.

The Scheme of Special Cash Awards to winners of medals in international sporting events and their coaches was reviewed during 2009, particularly to avoid the delay in sanction of cash awards to medal winners. Earlier applications used to be invited by the Ministry only once a year for the medals won in the preceding year. The procedure for submission of applications has now been streamlined to ensure timely sanction and release of cash awards. The revised instructions were issued in August 2009. Now, the concerned Federations can submit the applications for cash awards within one month of the completion of the relevant sport event.

SCHEME OF SPORTS FUND FOR PENSION TO MERITORIOUS SPORTS PERSONS

This scheme was launched in the year 1994. Under this scheme, those sportspersons, who are India citizens and have won gold, silver and bronze medals in Olympic Games, World Cup/World Championships, Asian Games, Commonwealth Games and Paralympic Games and have attained the age of 30 years and have retired from active sports career are eligible for life pension under this Scheme since July 2008. The details are:

(a)	Medalists at the Olympic Games	₹ 10,000/- p.m.
(b)	Gold medalists at the World Cups/ World Championships in Olympic and Asian Games disciplines	₹ 8,000/- p.m.
(c)	Silver or Bronze medalists of the World Cups/World Championships in Olympic and Asian Games disciplines	₹ 7,000/- p.m.
(d)	Gold medalists of the Asian/ Commonwealth Games	₹ 7,000/- p.m.
(e)	Silver and Bronze medalists of Asian/ Commonwealth Games	₹ 6,000/- p.m.
(f)	Gold medalists of Para-Olympic Games	₹ 5,000/- p.m.
(g)	Silver medalists of Para-Olympic Games	₹ 4,000/- p.m.
(h)	Bronze medalists of Para-Olympic Games	₹ 3,000/- p.m.

At present, 525 sports persons are receiving pension under the scheme.

NATIONAL WELFARE FUND FOR SPORTSPERSONS

The National Welfare Fund for sports persons was set up in March 1982 with a view to assist outstanding sportspersons of yesteryears, living in indigent circumstances who had brought glory to the country in sports. The scheme was reviewed in July

2009 to provide for lumpsum ex-gratia assistance to outstanding sportspersons of yesteryears. Provision of pension has been done away with as there is already a Scheme of Pension for Meritorious Sportspersons. Now, lumpsum ex-gratia assistance will be given to the sportspersons or their families for medical treatment, etc.

During the current financial year, apart from disbursement of pension to existing 29 beneficiaries, lumpsum assistance from the Fund has been provided to the following:

- (i) ₹ 3 lakh to Ms. Sulinder Kaur widow of late Makkhan Singh, after Ministry came to know that his family was living in miserable condition. Late Makkhan Singh was Gold Medalist in 4x400 mtrs relay race and also won Silver medal in 400 mtrs in 1962 Jakarta Asian Games.
- (ii) ₹ 1.5 lakh each to widows of six members of the Indian football team that took part in Melbourne Olympics, 1956 and reached up to semi-finals. In February, this year, nine surviving members of the Indian Football Team, had also been given financial assistance of ₹ 1.5 lakh each.
- (iii) ₹ 3 lakh to Shri J. Sreedharan, Boxing Coach, for medical treatment as he is paralysed.
- (iv) ₹ 20 lakh to the Subroto Mukherjee Sports Education Society for conduct of Golden Jubilee Edition of the Subroto Mukherjee Cup Football Tournament.

Promotion of Sports among persons with disabilities

The Ministry formulated a scheme for promotion of sports and games among disabled during 2009. The objective of the Scheme is broad basing participative sports among the disabled. The Scheme of Sports & Games for the Disabled has the following components :

- (i) Grant for Sports coaching and purchase of consumables & nonconsumable sports equipment for Schools.
- (ii) Grant for Training of Coaches
- (iii) Grant for holding District, State & National level competitions for the disabled.

The successful implementation of the Scheme will go a long way in integration of the disabled in the mainstream of the society.

SCHEME RELATING TO PARTICIPATIVE SPORTS

NATIONAL SPORTS CHAMPIONSHIP FOR WOMEN

The scheme started in 1975, aims at promoting sports amongst women. Under the scheme, national level competitions are preceded by holding of lower level competitions (Block, District and State level) for which States/UTs are provided financial assistance as per norms. Under the scheme, assistance is being provided to hold annual national championship for women in various sports discipline. The scheme is implemented through the Sports Authority of India. The pattern being followed at present for Central financial assistance is as under :

- | | | |
|------|---------------------------------|---------------------------|
| i) | for Block level competitions | ₹ 1000/- per block |
| ii) | for District level competitions | ₹ 3000/- per Distt |
| iii) | for State level competitions | ₹ 10,000/- per State |
| iv) | for smaller States and UTs | ₹ 5,000/- per State or UT |

However, Central financial assistance for block level competitions is restricted to 60% of total blocks where competitions are held in a State and for the remaining 40% of the blocks; the State concerned is advised to share the full expenditure.

NORTH-EAST SPORTS GAMES

The Scheme of North-East Sports Festival was launched in the year 1986-87 and is being operated through the Sports Authority of India. The North-East Sports Festival is organized by the Sports Authority every year in one of the North Eastern States by rotation in collaboration with the concerned State Government. There is no age restriction for participation in the festival but the participants have to be residents of the NE States for the last five years. For North East States, assistance of ₹ 50,000/- per district for district level competitions and ₹ 75,000/- per discipline for State level competition is given. The funds for North-East Games are now provided from the PYKKA scheme.

SCHEME OF ASSISTANCE FOR ANTI-DOPING ACTIVITIES

Doping is the deliberate or inadvertent use by sportspersons of a substance or method banned by Medical Commission of International Olympic Committee/World Anti Doping Agency (WADA). In pursuit of gold and glory, large number of sportspersons all over the world are tempted to or use performance enhancing substances in an effort to gain a competitive edge over others. India is no exception to this malaise. Recognizing the urgent need for embarking upon a concerted effort to check doping in collaboration with the global anti-doping community, the Government of India became one of the members of the Foundation Board of WADA, set up with the initiative of the International Olympic Committee.

National Anti Doping Agency (NADA) is the national organization responsible for promoting, coordinating and monitoring the doping control programme in sports in the country. The Anti Doping rules of NADA are compliant with the Anti Doping Code of WADA.

National Dope Testing Laboratory (NDTL) is responsible for testing dope samples and conducting advance research on the subject by maintaining close association with the WADA and WADA accredited laboratories. NDTL achieved WADA accreditation in September 2008 after undergoing probation from October, 2006. The NDTL has now become the 35th WADA accredited laboratory in the World and 6th in the Asian Region.

INTERNATIONAL COOPERATION

COMMONWEALTH YOUTH PROGRAMME (CYP): The CYP came into being in 1974 with the purpose of promoting the development of young men and women in the Commonwealth countries.

Main Objectives :

- i) To encourage and support participation of youth in the process of national development;
- ii) To give recognition to the contribution made by youth in economic, social and cultural spheres;
- iii) To promote productive activity in order to eliminate unemployment;
- iv) To provide opportunities for international understanding among the youth.

Headquarters: London**Headquarters of CYP Asia Centre: Chandigarh**

Present Activities:- The Ministry in collaboration with CYP Asia Centre organizes every year 3-4 programmes by way of national/regional consultations and workshops on issues of concern for the youth.

New Initiatives:- Efforts are being made to organize more programmes in collaboration with CYP Asia Centre.

EXCHANGE OF YOUTH DELEGATIONS AT INTERNATIONAL LEVEL

The International exchange of youth delegation has been conceived as an effective instrument for promoting exchange of ideas amongst the youth of different countries and to develop better relations with other countries. Under the programme, youth delegations are exchanged with foreign countries for participation in various youth programmes, meetings, seminars, conferences etc.

SOME RECENT INITIATIVES

Enhancement in assistance to Subroto Mukherjee Sports Education Society : The Subroto Mukherjee Cup Football Tournaments are being held in India since 1958 and are organized by Subroto Mukherjee Sports Education Society, which is being managed by the Air Force Sports Control Board. This year the Society is celebrating Golden Jubilee Edition of the Tournament. The Ministry has been providing assistance of Rs. 5 lakh every year to the Society under the Scheme of Assistance to National Sports Federations. It has been decided to enhance the annual support to this event to Rs. 25 lakh from the earlier level of assistance of Rs. 5 lakh.

Review of the scheme of National Welfare Fund for Sportspersons : Scheme of National Welfare Fund for Sportspersons was reviewed in July 2009 to provide for lumpsum ex-gratia assistance to outstanding sportspersons of yesteryears, who brought glory to the nation, but are now living in indigent circumstances. Provision of pension has been done away with as there is already a Scheme of Pension for Meritorious Sportspersons. Now lumpsum ex-gratia assistance will be given to the sportspersons or their families for medical treatment etc.

Revision in procedure for Special Cash Awards to avoid delays : The Scheme of Special Cash Awards to winners of medals in international sports events and their coaches was reviewed particularly to avoid the delay. Earlier applications used to be invited by the Ministry only once in a year for the medals won in the preceding year. The procedure for submission of applications has now been streamlined to ensure timely sanction and release of cash awards. The revised instructions were issued in August 2009. Now, the concerned Federations can submit the applications for cash awards within one month of the completion of the relevant sport events. Further, verification of achievements of the medal winners will be done in the Ministry itself in a meeting of the Departmental Committee wherein representatives of SAI will verify the achievements.

Re-designing of the Statuettes and Trophies for National Sports Awards

The statuettes have been redesigned completely to depict the human aspiration for excellence and achievement embodied in the sporting endeavor. Statuettes and trophies of Arjuna Award, Dronacharya Award, Dhyan Chand Award and Tenzing Norgay Adventure Award have been designed by Shri Gajendra Sahu, a senior faculty member at the B.K. College of Government Arts and Crafts at Bhubaneswar. The artiste, while retaining the traditional symbolism, has given the statuettes a new

look, which is both aesthetic and contemporary. The medal for Rajiv Gandhi Khel Ratna Award has also been redesigned by enhancement of the elements using the medallion as a source of inspiration. The new medal is gilt-edged to highlight the unique achievements and attempts to bring forth the prestige and honour associated with the award. The Trophy for Rashtriya Khel Protsahan Puruskar, introduced from 2009 with a view to recognizing the contribution made to sports development by entities other than sportspersons and coaches, has been designed as a torch which is a celebration of life and continuous human endeavour for higher achievements in Sports.

The designer of the Rajiv Gandhi Khel Ratna Medal and the Rashtriya Khel Protsahan Puruskar, Sh Mukul Goyal, is an alumnl of IIT Kanpur, National institute of Design, Ahmedabad and Domus Academy, Milan. Shri Mukul Goyal is a leading Product Designer.

Formulation of the Scheme for Sports and Games for the Disabled : The Ministry has for the first time formulated a scheme for promotion of sports and games among disabled. The objective of the Scheme is broad-basing participative sports among the disabled. The successful implementation of the Scheme will go a long way in integration of the disabled in the mainstream of the society.

30 States and Union Territories

ANDHRA PRADESH

<i>Area</i>	: 2,75,069 sq km	<i>Population</i>	: 8.32 crores as on 1.3.09
<i>Capital</i>	: Hyderabad	<i>Principal Languages</i>	: Telugu and Urdu

HISTORY AND GEOGRAPHY

The earliest mention of the Andhras is said to be in *Aitereya Brahmana* (2000 BC). It indicates that the Andhras, originally an Aryan race living in north India migrated to south of the Vindhya and later mixed with non-Aryans. Regular history of *Andhra Desa*, according to historians, begins with 236 BC, the year of Ashoka's death. During the following centuries, *Satavahanas*, *Sakas*, *Ikshvakus*, Eastern *Chalukyas*, and *Kakatiyas* ruled the Telugu country. Other dynasties that ruled over the area in succession were the kingdoms of Vijayanagar and Qutub Shahi followed by Mir Qumruddin and his successors, known as the Nizams. Gradually, from the 17th century onwards, the British annexed territories of the Nizam and constituted the single province of Madras. After Independence, Telugu-speaking areas were separated from the composite Madras Presidency and a new Andhra State came into being on 1 October 1953. With the passing of the States Reorganisation Act, 1956, there was a merger of Hyderabad State and Andhra State, and consequently Andhra Pradesh came into being on 1 November 1956.

Andhra Pradesh is historically called the Rice Bowl of India. The state has a large river system which supplements the rainfall in the state. It is one of the few states in the country blessed with riverine geography.

Andhra Pradesh is bounded on the north by Orissa and Chhattisgarh, on the west by Maharashtra and Karnataka, on the south by Tamil Nadu and on the east by the Bay of Bengal with a coastline of 974 km.

AGRICULTURE

Agriculture is the main occupation of about 62 per cent of the people in Andhra Pradesh. Rice is a major food crop and staple food of the State contributing about 77 per cent of the foodgrain production. Other important crops are *jowar*, *bajra*, maize, ragi, small millets, pulses, castor, tobacco, cotton and sugarcane. Forests cover 23 per cent of the State's area. Important forest products are teak, eucalyptus, cashew, casurina, bamboo, softwood, etc.

The Government is working with a mission of "Sustainable Agriculture Production with minimum cost of cultivation, eventually enhancing the return on income to the farmer." In the process of making the mission a reality, the Government is implementing schemes for the welfare of farmers like 9 hours free power supply, subsidized seed, subsidized interest rate on crop loans, subsidized and quality agricultural inputs etc. Andhra Pradesh occupies the first position in respect of agricultural loans from commercial and cooperative banks.

The debt waiver scheme of Central Government and the incentive scheme of the State Government have helped about one crore farmers in the state to the tune of ₹ 16,000 crore. The Government of Andhra Pradesh is also keen on introducing cooperative farming to set up farm yields.

IRRIGATION

A total of 86 projects (44 Major+30 Medium+4 Flood Banks+8 Modernisation) have been taken up under *Jalayagnam* programme, with the aim of completing the ongoing and new projects in a record time to provide immediate irrigation to water starved areas on top priority by mobilizing funds from all possible sources. Till now, 12 projects were completed and water released for 19 more projects creating partial irrigation potential and the remaining projects are programmed to be completed in a time bound and planned manner. Andhra Pradesh Government has been making huge budgetary allocations for the execution of irrigation projects and it is the first state to involve the farmers in the management of irrigation sources.

POWER

Important power projects in the State are : the Nagarjunasagar and Neelam Sanjiva Reddy Sagar (Srisailam Hydel Project), Upper Sileru, Lower Sileru, Tungabhadra Hydel projects and Nellore, Ramagundam, Kothagudem, Vijayawada and Muddanur thermal power projects. The Srisailam Hydro Electric project (Right Bank) with an installed capacity of 770 MW and the Srisailam Left Bank HES capacity of 900 MW and the Nagarjunasagar complex with 960 MW are the principal sources of hydel generation. Vijayawada Thermal Power station with an installed capacity of 1,260 MW and Kothagudem Thermal Power station with an installed capacity of 1,220 MW are the main sources of thermal power generation. The 1,000 MW coal-based Simhadri Thermal Power station aims at supplying the entire energy generated to the State.

Installed capacity of the State as in June 2009 is 13,472.33 MW. The annual revenue from sale of power is ₹ 13,945 crore (including non-tariff income). Government is particularly committed to the welfare of farmers by way of enhancing free power from seven hours to nine hours to all agriculture consumers. Govt. also waived the power consumption arrears amounting to ₹ 1,259 crore relating to agricultural consumers.

INDUSTRIES

The Government of AP is extending various incentives for SSI & Tiny Sector and Large & Medium Scale Industries. The State Government has been promoting the manufacturing sector in a big way by providing concessions in power tariff, allotting land and relaxing labour laws in Special Economic Zones (SEZs). AP has promoted 102 Special Economic Zones (SEZs) of which 64 have been notified by the Government of India. The state has recommended to Government of India for setting up of 59 IT/ITES SEZs, with active private sector participation. As of now, 12 IT SEZs with 22 units are functioning and operational creating an employment of 15,000 of IT professionals.

MINES & GEOLOGY

Andhra Pradesh is well known globally for its variety of rocks and minerals and is called Ratna Garbha. Andhra Pradesh has the largest deposits of quality chrysolite asbestos in the country. Other important minerals found in the state are copper ore,

manganese, mica, coal and limestone. The Singareni Coal Mines supply coal to the entire south India. The mineral consumption is increasing due to promotion of various industries and manufacture of mineral based products. The state produces about 100 to 110 million tonnes of industrial minerals and 200 million cubic metres of stone and building material. AP stands first in Barytes and Limestone production in the country. The state stands first in value of minor mineral production and second in total value of mineral production in the country contributing about 9 to 10% to the country's mineral value production. The state stands first in mineral revenue among the important Mineral Producing states of the country.

CIVIL SUPPLIES

₹ 2/-a kg rice scheme : To extend help to the poor and low-income groups the State Government has been implementing the Rs. 2/-a Kg Rice supply scheme since 7 April 2008. Depending on the size of the family, each white cardholder gets 16 kg to 20 kg every month. This benefits 1.82 crore white cardholders. The Government is keen on implementing the scheme without any scope for irregularities.

HOUSING

The Government has introduced an innovative, unique, self financed housing scheme "Rajiv Swagruha" for the moderate income group in the state with an objective that every person with moderate income in the state having no house of his/her own must have a house at affordable cost in the urban/municipal areas in the state. The houses/flats have to be made available to them at prices 25% less than the existing market rates on similar specifications. The construction of housing programme under Rajiv Swagruha is under progress.

HEALTH

'Rajiv Arogyasri' is a unique health insurance scheme being implemented in Andhra Pradesh. The scheme enables the poor, suffering from chronic diseases, to undergo treatment costing upto Rs. 2 lakh. All white cardholders can undergo treatment for about 942 diseases. Medical and surgical treatment is provided in 344 corporate, private and Government hospitals free of cost to patients. Aarogyasri Scheme is unique in its applicability, since no other state/government agency has provided universal health coverage to the poor for major ailments. The choice of hospital for treatment is with the patient. The entire process from the time of conduct of health camps to the screening, testing, treatment, follow-up and claim for payment is made transparent through online web based processing to prevent any misuse and fraud. This system is motivating more and more Government hospitals to participate in the scheme and utilize the revenue earned to improve facilities to provide quality medical care and thus bring reforms in tertiary medical care. Officials from several states have visited the state and appreciated the scheme. Since inception of the scheme i.e., 1 April 2007 and as on 31 March 2009, 344 hospitals from Government and private sector have joined the network and organized 8785 health camps in rural areas wherein 15,99,520 patients have been screened and 2,43,529 surgeries/treatment conducted at a cost of ₹ 781.35 crores. In addition, 3,65,763 patients were given medical consultation as outpatients free of cost.

INFORMATION TECHNOLOGY

Andhra Pradesh has been forging ahead in the sphere of Information Technology. It is ahead of other states in exploiting the opportunities to the hilt. The State Government

has introduced many schemes to utilize the maximum number of skilled human resources in the I.T. Sector.

The Government is making efforts to spread IT to Tier II cities like Warangal, Tirupathi, Kakinada, Visakhapatnam, Vijayawada, Guntur and Kadapa. As a result, job opportunities in the IT sector in Tier II cities have improved. The IIT, Hyderabad is part of the history making which started functioning from 20 August 2008. The Government of Andhra Pradesh established Rajiv Gandhi University of Knowledge Technology (RGUKT) in 2008 to cater to the educational needs of the meritorious rural youth of Andhra Pradesh. Three IITs are established in Basara (Adilbad), Nuzividu (Krishna) and Rajiv Knowledge Valley (Kadapa) under RGUKT.

TRANSPORT

Roads : The total R&B road network in the State is 69,051 km as on 31 March 2009, of which, the National Highways passing through Andhra Pradesh constitute 4,472 km., the state Highways constitute 10,519 kms. Major District Roads constitute 32,170 km and rural roads 21,714 kms. The density with reference to R&B road network in the state is 0.23 km per one sq.km. and 0.86 km per 1000 persons.

Railways : Of the railways route covering 5,107 km in Andhra Pradesh, 4,633 km is broad-gauge, 437 km is metre-gauge and 37 km is narrow gauge.

Aviation : Important airports in the State are located at Shamshabad, Tirupathi and Visakhapatnam. International flights are operated from Shamshabad.

Ports : There is one major Port at Visakhapatnam under Government of India and 13 Non-Major Ports under State Government. Ports offer tremendous potential for development and for the growth of a wide spectrum of maritime activities such as international shipping, coastal shipping, ship repairs, fishing, captive ports for specific industries, all weather ports, tourism and sports, etc. Minor Ports of Andhra Pradesh handled 26.88 million tones of cargo during 2009-10 and AP is the 2nd highest cargo handling state in India.

TOURIST CENTRES

Andhra Pradesh Tourism Development Corporation continues to strive for promotion of new tourism products such as Eco-tourism, Beach-Tourism and Cruise-Tourism. The Corporation currently runs a chain of 52 hotels with 1043 rooms and 2222 beds in prime locations fostering homely ambience. An impressive fleet of 144 buses cater to varied tour packages connecting important tourism locations within and outside the state. The Corporation runs Sound & Light shows, owns and operates water fleet of 120 boats making River and Lake cruise tourism an affordable reality. 73.79 lakh tourists visited the state and the revenue is ₹ 109.00 crores during 2008-09.

Charminar, Salarjung Museum, Golconda Fort in Hyderabad, Thousand Pillar Temple and Fort in Warangal, Sri Lakshmi Narasimha Swamy Temple at Yadagirigutta, Buddha Stupa at Nagarjunakonda, Nagarjuna Sagar, Sri Venkateswara Temple at Tirumala-Tirupathi, Sri Mallikarjunaswamy Temple at Srisailam, Kanaka Durga Temple at Vijayawada, Sri Satyanarayana Swamy Temple at Annavaram, Sri Varaha Narasimha Swamy Temple at Simhachalam, Sri Sita Rama Temple at Bhadrachalam, Araku Valley, Horsley Hills, Nelapattu, etc., are the major tourist attractions in Andhra Pradesh.

GOVERNMENT*Governor* : Shri E.S.L. Narasimhan*Chief Secretary* : Shri S.V. Prasad*Chief Minister* : Shri Konijeti Rosaiah**AREA, POPULATION AND HEADQUARTERS OF DISTRICTS**

S.No.	District	Area in 000' sq km	2001 Census Population	Headquarters
1.	Adilabad	16.1	24,88,003	Adilabad
2.	Ananthapur	19.1	36,40,478	Ananthapur
3.	Chittoor	15.2	37,45,875	Chittoor
4.	Cuddapah	15.4	26,01,797	Cuddapah
5.	East Godavari	10.8	49,01,420	Kakinada
6.	Guntur	11.4	44,65,144	Guntur
7.	Hyderabad	0.2	38,29,753	Hyderabad
8.	Karimnagar	11.8	34,91,822	Karimnagar
9.	Khammam	16.0	25,78,927	Khammam
10.	Krishna	8.7	41,87,841	Machilipatnam
11.	Kurnool	17.7	35,29,494	Kurnool
12.	Mahaboobnagar	18.4	35,13,934	Mahaboobnagar
13.	Medak	9.7	26,70,097	Sangareddy
14.	Nalgonda	14.2	32,47,982	Nalgonda
15.	Nellore	13.1	26,68,564	Nellore
16.	Prakasam	17.6	30,59,423	Ongole
17.	Nizamabad	8.0	23,45,685	Nizamabad
18.	Ranga Reddy	7.5	35,75,064	Hyderabad
19.	Srikakulam	5.8	25,37,593	Srikakulam
20.	Visakhapatnam	11.2	38,32,336	Visakhapatnam
21.	Vizianagaram	6.5	22,49,254	Vizianagaram
22.	Warangal	12.9	32,46,004	Warangal
23.	West Godavari	7.7	38,03,517	Eluru

ARUNACHAL PRADESH*Area* : 83,743 sq km *Population* : 10,97,968 (census 2001 Prov.)*Capital* : Itanagar *Major Tribes* : Monpa, Miji, Aka, Sherdukpen, Nyishi, Apatani, Tagin, Hill Miri, Adi, Digaru-Mismi, Idu-Mishmi, Khamti, Miju-Mishmi, Nocte, Tangsa and Wancho.**HISTORY AND GEOGRAPHY**

Arunachal Pradesh became a full-fledged State on 20 February 1987. Till 1972, it was known as the North-East Frontier Agency (NEFA). It gained the Union Territory status on 20 January 1972 and renamed as Arunachal Pradesh.

On 15 August 1975 an elected Legislative Assembly was constituted and the first Council of Ministers assumed office. The first general election to the Assembly was held in February 1978.

Administratively, the State is divided into sixteen districts. Capital of the State is Itanagar in Papum Para district. Itanagar is named after Ita fort meaning fort of bricks, built in 14th century AD.

Arunachal Pradesh finds mention in the literature of *Kalika Purana* and *Mahabharata*. This place is the Prabhu Mountains of the Puranas.

It was here that sage Parashuram atoned for his sin, sage Vyasa meditated, King Bismaka founded his kingdom and Lord Krishna married his Consort Rukmini.

The widely scattered archaeological remains at different places in Arunachal Pradesh bear testimony to its rich cultural heritage.

AGRICULTURE AND HORTICULTURE

Agriculture is the mainstay of the people of Arunachal Pradesh and mainly depends on *jhum* cultivation. Encouragement is being given to the cultivation of cash crops like potatoes and horticulture crops like apples, oranges and pineapples.

INDUSTRIES AND MINERALS

For conservation and exploration of the vast minerals the Arunachal Pradesh Mineral Development and Trading Corporation Limited (APMDTCL) was set up in 1991. Namchik-Namphuk coal fields are taken up by APMDTCL. To provide training to craftsmen in different trades there are two Industrial Training Institutes at Roing and Daporijo.

FESTIVALS

Some of the important festivals of the State are: *Mopin* and *Solung* of the Adis, *Lossar* of the Monpas, *Boori-boot* of the Hill Miris, *Sherdukpens*, *Dree* of the Apatanis, *Si-Donyi* of the Tagins, *Reh* of the Idu-Mishmis, *Nyokum* of the Nishis, etc. Animal sacrifice is a common ritual in most festivals.

TOURIST CENTRES

Places of tourist interest are : Tawang, Dirang, Bomdila, Tipi, Itanagar Malinithan, Likabali, Pasighat, Along, Tezu, Miao, Roing, Daporijo Namdapha, Bhismanagar, Parashuram Kund and Khonsa.

PANCHAYATI RAJ

The Arunachal Pradesh State Election Commission in support of State Government has successfully conducted and completed Panchayati Raj Elections in the State in the month of May 2008 for speedy development in the village and grass root level.

GOVERNMENT

<i>Governor</i>	: General (Retd.) J.J. Singh	<i>Chief Secretary</i>	: Shri Tabom Bam
<i>Chief Minister</i>	: Shri Dorjee Khandu	<i>Jurisdiction of High Court</i>	: Falls under Guwahati High Court

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area (sq km)	Population	Headquarters
1.	Tawang	2,172	38,924	Tawang
2.	West Kameng	7,422	74,599	Bomdila
3.	East Kameng	4,134	57,179	Seppa
4.	Papum-Pare	2,875	1,22,003	Yupia
5.	Lower Subansiri and Kurung Kumey	10,135	98,244	Ziro
6.	Upper Subansiri	7,032	55,346	Daporijo
7.	West Siang	8,325	1,03,918	Along
8.	East Siang	4,005	89,397	Pasighat
9.	Upper Siang	6,188	33,363	Yingkiong
10.	Dibang and Lower Dibang Valley	13,029	57,720	Anini
11.	Lohit and Anjaw	11,402	1,43,527	Tezu
12.	Changlang	4,662	1,25,422	Changlang
13.	Tirap	2,362	1,00,326	Khonsa

ASSAM

<i>Area</i>	: 78,438 sq km	<i>Population</i>	: 2,66,55,528
<i>Capital</i>	: Dispur	<i>Principal Language</i>	: Assamese

HISTORY AND GEOGRAPHY

The word 'Assam' as interpreted by some scholars is derived from the Sanskrit word *Asoma* meaning peerless or unparalleled. But the widely accepted opinion of the academic circles today is that the term has come from the original name of the *Ahoms*, who ruled the land for about six hundred years prior to its annexation by the British. The races like Austric, Mongolian, Dravidian and Aryan that came to this land long long ago have contributed to its composite culture. Thus Assam has a rich legacy of culture and civilization.

Assam was known as Pragjyotisha or the place of eastern astronomy during the epic period and later named as Kamrupa. The earliest epigraphic reference to the kingdom of Kamrupa is found in the Allahabad pillar inscription of king Samudragupta. Kamrupa is mentioned as a *Pratyanta* or frontier state outside the Gupta empire but with friendly and subordinate relation to it. Hiuen Tsang, the Chinese scholar pilgrim who visited Kamrupa in about 743 AD on an invitation of its monarch, Kumar Bhaskar Varman, left a record of the kingdom he called Kamolupa. Kamrupa also figured in the writings of the Arabian historian Alberuni in the eleventh century. Thus, from the epic period down to the twelfth century AD, the eastern frontier kingdom was known as Pragjyotisha and Kamrupa and kings called themselves 'Lords of Pragjyotisha'.

The advent of the *Ahoms* across the eastern hills in 1228 AD was the turning-point in Assam history. They ruled Assam nearly for six centuries. The Burmese entered through the eastern borders and overran the territory at a time when

court intrigues and dissensions were sapping the vitality of the *Ahom* royalty. It became a British protectorate in 1826 when the Burmese ceded Assam to the British under the provision of the Treaty of Yandabo.

Assam is the sentinel of north-east India and gateway to the North-Eastern States. The State is close to India's international borders with Bangladesh and Bhutan. Assam is surrounded by Bhutan and Arunachal Pradesh on the north, Manipur, Nagaland and Arunachal Pradesh on the east and Meghalaya, Tripura and Mizoram on the south.

AGRICULTURE

Assam is an agricultural State. Agriculture occupies an important place in the economy of the State. The principal food crop is rice. The cash crops are jute, tea, cotton, oilseeds, sugarcane, potato, etc. Noteworthy horticulture items are orange, banana, pineapple, arecanut, coconut, guava, mango, jackfruit and citrus fruits. The State has an estimated 39.83 lakh hectare gross cropped area of which net area sown is about 27.24 lakh hectare.

FORESTS

Assam is known for her rich forest wealth which constitutes 26.22 per cent of the total forest area.

WILD LIFE

The State has five National Parks and eleven wildlife sanctuaries. The Kaziranga National Park and the Manas Tiger Project (National Park) are internationally famous for the one horned Rhino and Royal Bengal Tiger respectively.

INDUSTRY

Of agriculture-based industries, tea occupies an important place. There are six industrial growth centres in the State and two such centres are being set up at Balipara and Matia. Presently four oil refineries have been working in the State including the one at Digboi. Construction of the Export Promotion Industrial Park (EPIP) at Amingaon near Guwahati is nearing completion. A Software Technology Park will be constructed at Borjhar near Guwahati. A Central Institute for Plastic Engineering Technology (CIPET) has been established at Amingaon near Guwahati. Assam has always enjoyed the highest reputation for her arts and crafts associated with her cottage industries. Cottage industries include handloom, sericulture, cane and bamboo articles, carpentry, brass and bell-metal crafts. Assam produces varieties of silk, *Endi*, *Muga*, *Tassar*, etc. *Muga* silk is produced only in Assam in the world.

POWER

The major power stations are Chandrapur Thermal Project, Namrup Thermal Project and a few Mobile Gas Turbine Units along with a mini hydro-electric project. Revitalising the Thermal Power Station of Bongaigaon and the on-going the Karbi-Langpi Project will boost the power supply in the State. The Lakuwa Waste Heat Recovery Project was expected to be commissioned in 2008-09.

TRANSPORT

Roads : The total length of roads in the State is 37,515 km which includes 2,836 kms of National Highways. The construction of 160 km of barbed wire fencing and 27

kms of the border road along the Indo-Bangladesh International Border have been completed.

Railways : The length of railway tract in Assam is 2,284.28 kms comprising 1,227.16 kms under broad-gauge and 1,057.12 km under metre-gauge lines.

Aviation : The regular civil air services operate from Lokopriya Gopinath Bordoloi Airport (Guwahati), Salonibari (Tezpur), Mohanbari (Dibrugarh), Kumbhirgram (Silchar), Rawriah (Jorhat) and Silonibari (North Lakhimpur).

FESTIVALS

Assam has an exclusive range of colourful festivals. *Bihu* is the chief festival celebrated on three occasions. *Rongali Bihu* or *Bohag Bihu* marks the advent of the cropping season and it also ushers in the Assamese New Year. *Bhogali Bihu* or *Magh Bihu* is the harvest festival and *Kati Bihu* or *Kongali Bihu* coming in autumn is a simple affair.

Religion accounts for a large variety of festivals. Vaishnavites observe the birth and death anniversaries of prominent Vaishnava saints through day-long singing of hymns and staging of *Bhaonas* (theatrical performances in traditional style). *Ambubachi* in Kamakhya shrine, *Sivaratri Mela* at Umananda and other places near Siva temples, *Durga Puja*, *Diwali*, *Dol-Jatra*, Id, Christmas, *Ashokastami Mela*, and *Rash Mela*, *Parasuram Mela* are other religious festivals.

TOURISM

Important places of tourism in and around Guwahati are Kamakhya temple, Umananda (Peacock Island), Navagraha (temple of nine planets), Basistha Ashram, Dolgobinda, Gandhi Mandap, State Zoo, State Museum, Sukreswar temple, Gita Mandir, Madan Kamdev temple, a magnificent archaeological place of interest, and Saraighat bridge.

Other places of tourist interest in the State are : Kaziranga National Park (famous for the one horned rhino), Manas Tiger Project, Pobi-tora and Orang (wildlife sanctuaries), Sibsagar (Shiv Temple-Rangghar-Karengghar), Tezpur (Bhairavi temple and scenic beauty), Bhalukpong (Angling), Haflong (health resort with Jatinga hills), Majuli (largest river island in the world), Chandubi lake (picnic spot), Hajo (meeting point of Buddhism, Hinduism and Islam), Batadrava (birth place of great Vaishnava saint Sankaradeva) and Sualkuchi (famous for silk industry).

GOVERNMENT

<i>Governor</i>	: Shri Janaki Ballav Pattanaik	<i>Chief Secretary</i>	: Shri Naba Kumar Das
<i>Chief Minister</i>	: Shri Tarun Gogoi	<i>Jurisdiction of Guwahati High Court</i>	: All North-Eastern States

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population (in lakh) ¹	District Headquarters
1.	Dhubri	2,838	16.35	Dhubri
2.	Kokrajhar	3,129	9.30	Kokrajhar

3.	Bongaigaon	2,510	9.06	Bongaigaon
4.	Goalpara	1,824	8.22	Goalpara
5.	Barpeta	3,245	16.42	Barpeta
6.	Nalbari	2,257	11.38	Nalbari
7.	Kamrup	4,345	25.15	Guwahati
8.	Darrang	3,481	15.04	Mangaldoi
9.	Sonitpur	5,324	16.78	Tezpur
10.	Lakhimpur	2,277	8.89	North Lakhimpur
11.	Dhemaji	3,217	5.89	Dhemaji
12.	Morigaon	1,704	7.76	Morigaon
13.	Nagaon	3,831	23.15	Nagaon
14.	Golaghat	3,502	9.46	Golaghat
15.	Jorhat	2,851	10.09	Jorhat
16.	Sibsagar	2,668	10.53	Sibsagar
17.	Dibrugarh	3,381	11.72	Dibrugarh
18.	Tinsukia	3,790	11.50	Tinsukia
19.	Karbi-Anglong	10,434	8.12	Diphu
20.	North Cachar Hills	4,888	1.86	Haflong
21.	Karimganj	1,809	10.04	Karimganj
22.	Hailakandi	1,327	5.43	Hailakandi
23.	Cachar	3,786	14.42	Silchar

¹ Provisional

BIHAR

<i>Area</i>	: 94,163 sq km	<i>Population</i>	: 8,28,78,796
<i>Capital</i>	: Patna	<i>Principal Language</i>	: Hindi

HISTORY AND GEOGRAPHY

Bihar finds mention in the *Vedas*, *Puranas*, epics, etc., and was the main scene of activities of Buddha and the 24 Jain Tirthankars. Great rulers of the State before the Christian era were Bimbisara, Udayin, who founded the city of Pataliputra. Chandragupta Maurya and Emperor Ashoka and Maurya dynasty, the Sungas and the Kanvas. Then came the Kushan rulers followed by Chandragupta Vikramaditya of the Gupta dynasty. Muslim rulers made inroads into the territory during the medieval period. The first conqueror of Bihar was Mohammed-bin-Bakhtiar Khalji. The Tughluqs and then the Mughals followed the Khaljis.

One of the major states of the Indian Union, Bihar is bounded on the north by Nepal, on the east by West Bengal, on the west by Uttar Pradesh and on the south by Jharkhand. Bihar has a number of rivers, the most important of which is the Ganga.

The other rivers are the Sone, Poonpoo, Falgu, Karmanasa, Durgawati, Kosi, Gandak, Ghaghara, etc.

AGRICULTURE

Bihar has a total geographical area of about 93.60 lakh hectare, out of which only 55.65 lakh hectare is the net cultivated area with a gross cultivated area of 77.19 lakh hectare. About 34.62 lakh hectare net area and 46.46 lakh hectare gross area receive irrigation from different sources. Principal food crops are paddy, wheat, maize and pulses. Main cash crops are sugarcane, potato, tobacco, oilseeds, onion, chillies, jute and mesta. Bihar has a notified forest area of 6.22 lakh hectare, which is 6.65 per cent of its geographical area.

INDUSTRIES

Major Industries are : Railway Wagon Plants of Bharat Wagon Limited at Muzaffarpur and Mokamah; Oil Refinery of Indian Oil Corporation at Barauni; Fertilizer Manufacturing Plant of Hindustan Fertilizer Corporation Limited (HPCL) at Barauni and Pyrites Phosphates & Chemicals Limited (PPCL) at Amjhor; Cotton Spinning Mills at Siwan, Pandaul, Bhagalpur, Mokamah and Gaya; 13 sugar mills in the private sector and 15 in the public sector located in south and north Bihar with a total crushing capacity of 45,000 Tonne. In addition, distilleries at Gopalganj, West Champaran, Bhagalpur and Riga (in Sitamarhi district); finished leather industry in West Champaran, Muzaffarpur and Barauni; jute mills at Katihar and Samastipur; medicine manufacturing unit at Hajipur; food processing units as also vanaspati manufacturing units at Aurangabad and Patna; besides Kalyanpur Cement Limited at Banjari, are notable on the industrial map of Bihar.

IRRIGATION

Bihar has an irrigation potential of 28.73 lakh hectare. It is created through major and medium irrigation schemes and 49.35 lakh hectare through minor irrigation schemes.

TRANSPORT

Roads : Bihar has 46107.00 km of *pucca* roads including 3734.38 km of national highways, 3989 km of state highways, 8156 km of major District Roads, 3818 km of other District Roads and 27400 km of Rural Roads.

Railways : Bihar has a fairly good railway network. There is a railway bridge at Mokamah in north Bihar. A few railway routes connecting important places like Muzaffarpur-Samastipur-Barauni-Katihar and Muzaffarpur-Chapra-Siwan have been converted into broad gauge. The main rail junctions are at Patna, Gaya, Muzaffarpur, Katihar and Samastipur.

Aviation : There is an international airport at Patna, besides landing grounds in all major districts of the State.

TOURIST CENTRES

Important places of tourist interest are Rajgir, Nalanda, Vaishali, Pawapuri (where Lord Mahavira breathed his last and attained *Nirvana*), Bodh Gaya, Vikramshila (ruins of Buddhist University of higher learning), Gaya, Patna (ancient city of Pataliputra), Sasaram (tomb of Shershah Suri) and Madhubani (known for its famous Madhubani Paintings).

Mundeshwari Mandir (Kaimur), Rohtras Garh Fort (Rohtas), Jain Pilgrim Place, Kundalpur (Nalanda), Bihar School of Yoga (Munger), Manersharif Patna, Rural Tourist Place Nepura (Nalanda), Kesaria Stupa (West Champaran), Barabar Hills (Jehanabad) and Lauria Nandangarh are also important tourist places.

GOVERNMENT

<i>Governor</i>	: Shri D. Konwar	<i>Chief Secretary</i>	: Shri Anup Mukherji
<i>Chief Minister</i>	: Shri Nitish Kumar	<i>Jurisdiction of High Court</i>	: Bihar

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area (in sq km)	Population	Headquarters
1.	Araria	2,830.00	21,58,608	Araria
2.	Arwal	637.00	5,89,476	Arwal
3.	Aurangabad	3,389.2	20,04,960	Aurangabad
4.	Begusarai	1,918.00	23,49,366	Begusarai
5.	Bhagalpur	2,569.00	24,23,172	Bhagalpur
6.	Banka	3,020.00	16,08,773	Banka
7.	Bhojpur	2,395.00	22,43,144	Arrah
8.	Buxar	1,703.00	14,02,396	Buxar
9.	Kaimur (Bhabhua)	3,362.00	12,89,074	Bhabhua
10.	Darbhanga	2,279.00	32,95,789	Darbhanga
11.	East Champaran	3,968.00	39,39,773	Motihari
12.	Gaya	4,976.00	34,73,428	Gaya
13.	Gopalganj	2,033.00	21,52,638	Gopalganj
14.	Jahanabad	932.00	9,24,839	Jahanabad
15.	Jamui	3,098.00	13,98,796	Jamui
16.	Katihar	3,057.00	23,92,638	Katihar
17.	Khagaria	1,486.00	1,28,00,354	Khagaria
18.	Kishanganj	1,884.00	12,96,348	Kishanganj
19.	Lakhisarai	1,228.00	8,02,225	Lakhisarai
20.	Madhepura	1,788.00	15,26,646	Madhepura
21.	Madhubani	3,501.00	35,75,281	Madhubani
22.	Munger	1,419.00	11,37,297	Munger
23.	Muzaffarpur	3,172.00	37,46,714	Muzaffarpur
24.	Nalanda	2,355.00	23,70,528	Biharsharif
25.	Nawada	2,494.00	18,09,696	Nawada
26.	Patna	3,202.00	47,18,592	Patna
27.	Purnea	3,229.00	25,43,942	Purnea
28.	Rohtas	3,851.00	24,50,748	Sasaram
29.	Saharsa	1,687.00	15,08,182	Saharsa
30.	Samastipur	2,904.00	33,94,793	Samastipur
31.	Saran	2,641.00	32,48,701	Chapra

32.	Shekhpura	689.00	5,25,502	Sitamarhi
33.	Sheohar	349.00	5,15,961	Sheohar
34.	Sitamarhi	2,294.00	26,82,720	Sitamarhi
35.	Siwan	2,219.00	27,14,349	Siwan
36.	Supaul	2,425.00	17,32,578	Supaul
37.	Vaishali	2,036.00	27,18,421	Hazipur
38.	West Champaran	5,228.00	30,43,466	Bettiah

CHHATTISGARH

<i>Area</i>	: 1,36,034 sq km	<i>Population</i>	: 2,07,95,956 (Census 2001)
<i>Capital</i>	: Raipur	<i>Principal Language</i>	: Hindi

HISTORY AND GEOGRAPHY

Chhattisgarh, carved out of Madhya Pradesh came into being on 1 November 2000 as the 26th State of the Union. It fulfils the long-cherished demand of the people. In ancient times the region was known as Dakshin-Kausal. This finds mention in *Ramayana* and *Mahabharata* also. Between the sixth and twelfth centuries Sarabhpurias, Panduavanshi, Somvanshi, Kalchuri and Nagvanshi rulers dominated this region. Kalchuris ruled in Chhattisgarh from 980 to 1791 AD. With the advent of the British in 1845, Raipur gained prominence instead of capital Ratanpur. In 1904 Sambalpur was transferred to Orissa and estates of Sarguja were transferred from Bengal to Chhattisgarh.

Chhattisgarh is bounded by southern Jharkhand and Orissa in the east, Madhya Pradesh and Maharashtra in the west, Uttar Pradesh and western Jharkhand in the north and Andhra Pradesh in the south. Areawise Chhattisgarh is the ninth largest state and population-wise it is seventeenth populous state of the nation.

AGRICULTURE

Agriculture and allied activities account for nearly 80 per cent of the workforce in the state. Out of the geographical area 13,790 thousand hectare, gross cropped area is about 35 per cent. Kharif is the main cropping season. Rice is the predominant crop of the state; other important crops are maize, wheat, niger, groundnut and pulses. The state has one of the biggest collections of rice germplasm. Horticulture crops are grown in an area of about 303.57 thousand hectare.

IRRIGATION AND POWER

When the state came into being, the total irrigation capacity was 13.28 lakh hectares which has now increased to 16.81 lakh hectare. Major completed projects are Tandula, Kodar and Paury.

The total capacity of the State Electricity Board is 1,681.05 MW, out of this the thermal power share is 1,260 MW and the rest is hydel power. The electricity board is investing in modernisation, strengthening transmission and distribution networks and creating more generating capacities. The Board itself is adding 500 MW installed generating capacity with 2 X 250 MW units in Korba. The private sector has been encouraged to set up generating capacities and to make third party sales outside the state. Around 93 per cent of 19,720 inhabited villages of Chhattisgarh have been electrified.

MINERAL RESOURCES

Chhattisgarh hosts a wide variety of minerals found in igneous, sedimentary and metamorphic terrains. Large deposits of coal, iron ore, limestone, bauxite, dolomite and tin ore are located in several parts of the state. Lately diamondiferous kimberlites identified in Raipur district are likely to yield substantial quantity of diamonds. There are also present medium to small deposits of gold and base metals. Sillite, garnet, corundum, graphite of workable size are likely to graduate to the category of large deposits after prospecting. Twenty per cent of the country's steel and cement is produced in the state. It is the only tin ore producing state in the country. The mineral resources have immense potential for large investments in mining, setting of mineral based industries and generating employment. Chhattisgarh nestles atop the world's largest kimberlite area. Eight blocks have been demarcated for diamond exploration.

Apart from diamond, four blocks of gold exploration and five blocks for base metal investigations have also been demarcated.

INDUSTRY

Chhattisgarh is generously bestowed with natural resources like forests, minerals and surface water. The State has undergone a radical change and is thriving with industrial activities now. Chhattisgarh produces 15 per cent of the steel made in the country. Many Government of India Undertakings like Bhilai Steel Plant, National Mineral Development Corporation, South-Eastern Coal Field Limited, NTPC and a number of large cement plants by groups like ACC, Gujarat Ambuja, Grasim, CCI and Lafarge of France and 53 steel projects (sponge iron/pig iron route) in private sector are also under different stages of implementation. There are approximately 133 steel re-rolling mills and a number of mini steel plants. The state also boasts of 11 ferro-alloy units, steel/cast iron casting units, engineering and fabrication units apart from large number of agro-based and food processing, chemical, plastic, construction material, forest produce based units.

Strategically located in central India, Chhattisgarh is able to supply power to units for all the time. About 17 per cent of the country's coal reserves in the state, offering cheap pithead power generation opportunities with the potential to produce up to 50,000 MW of power. NTPC is now installing a new power generation unit, the largest ever by it in Bilaspur district. NTPC has started construction on its 2,640 MW Super Thermal plant in Sipat and another 600 MW plant in Korba. Several other states are also interested in installing plants here. Private sector MoUs for more than 25,000 MW and more projects are in the pipeline. Chhattisgarh State Industrial Development Corp. Ltd., Raipur has developed, maintained and is managing approximately an area of 3,500 hectare of industrial land. More than 925 industries with investments of more than ₹ 18,000 million providing direct employment to 80,000 persons have already been set up on the land developed by this corporation.

INFORMATION TECHNOLOGY

E-Governance in Chhattisgarh is oriented towards ensuring people's access to government, and this makes the government even more responsive and transparent. Chips (Chhattisgarh Infotech and Biotech Promotion Society) was set up with a high powered governing council under the Chief Minister's chairpersonship, to act as a prime mover for IT and Biotechnology in the state. All citizen services of e-governance are under one umbrella project called CHOICE (Chhattisgarh On-line Information for Citizens Empowerment).

Chhattisgarh got the United Nations Development Programme (UNDP) Award 2007 for its Human Development Report, using Information Technology for the betterment of citizens.

TRANSPORT

ROADS: The total length of the roads in the State is 34,930 km. The length of the national highways is 2,225 km, state highways 3,213.50 km, district roads 4,814 km and rural roads is 27,001 km.

Two north-south and four east-west road corridors are being constructed in the state for better connectivity having a total length of 3106.75 km.

RAILWAYS : Raipur, Bilaspur, Durg, Rajnandgaon, Raigarh and Korba are important railway stations.

TOURIST CENTRES

Chhattisgarh situated in the heart of India, is endowed with a rich cultural heritage and attractive natural diversity. The State is full of ancient monuments, rare wildlife species, carved temples, Buddhist sites, palaces, water falls, caves, rock paintings and hill plateaus. Bastar, with its unique cultural and ecological identity; Chitrakote Falls, a spot where the river Indravati has an abrupt fall of 96 ft; Tirathgarh Falls, the picturesque waterfall of Kanger river from a height of 100 ft in the form of steps; Keshkal valley; Kangerghati National Park; Kailash caves; Sita Bongara and Kutumbars caves are rich in natural beauty. Mahamaya temple at Ratanpur, Bambleshwari Devi Temple at Dongargarh, Danteshwari Devi Temple at Dantewada, Sirpur an important centre of Buddhism from 6-10 century, Champaran, the birth place of Mahaprabhu Vallabhacharya, Khutaghat waterfall, Dindneswari Devi temple of Malhar and the Achanakmar sanctuary, Udanti sanctuary near Raipur, Pali and Kendai waterfall of Korba district are important places of tourist interest. The Sabari temple of Kharod Janjgir-Champa; Nar Narayan temple of Sheorinarayan; Vishnu Temple of Janjgir are important religious places. The state has set up a State Tourism Promoting Board as the nodal agency for the sustained development of interrelated sectors in tourism.

GOVERNMENT

Governor : Shri Shekhar Dutt

Chief Secretary : Shri P. Joy Oommeh

Chief Minister : Dr. Raman Singh

Jurisdiction of High Court : Chhattisgarh

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area (in sq km)	Population	Headquarters
1	Bastar	10,376	11,31,453	Jagdalpur
2	Bilaspur	8,569	19,93,042	Bilaspur
3	Durg	8,702	28,01,757	Durg
4	Raigarh	6,528	12,65,084	Raigarh
5	Raipur	13,445	30,09,042	Raipur
6	Rajnandgaon	8,023	12,81,811	Rajnandgaon
7	Sarguja	16,034	19,70,661	Ambikapur

8	Koria	5,978	5,85,455	Baikunthpur
9	Jashpur	6,457	7,39,780	Jashpur
10	Janjgir-Champa	4,467	13,16,140	Janjgir
11	Korba	5,769	10,12,121	Korba
12	Kanker	6,434	6,51,333	Kanker
13	Dantewada	9,055	4,89,233	Dantewada
14	Mahasamund	4,963	8,60,176	Mahasamund
15	Dhamatari	4,081	7,03,569	Dhamtari
16	Kabirdham	3,958	5,84,667	Kawardha
17	Narayanpur	6,640	1,10,800	Narayanpur
18	Bijapur	6,555	2,29,832	Bijapur

GOA

<i>Area</i>	: 3,702 sq km	<i>Population</i>	: 13,47,668 (2001 Census)
<i>Capital</i>	: Panaji	<i>Principal Languages</i>	: Konkani and Marathi

HISTORY AND GEOGRAPHY

Goa, known in the bygone days as Gomanchala, Gopakapattam, Gopakapuri, Govapuri, Gomantak, etc., abounds in a rich historical heritage. Early history of Goa is obscure. In the first century of the Christian era, Goa was a part of the Satavahana empire, followed by the Kadamba, the Rashtrakutas of Malkhed, the Chalukyas and the Silharas. The empire of the Yadavas by the end of the 14th century was displaced by the Khiljis of Delhi and thus Muslim rule came to Goa. After the discovery of the sea route to India by Vasco-da-Gama in 1498, many Portuguese expeditions came to India. In 1510, Alfonso de Albuquerque with the help of the emperor of Vijayanagar attacked and captured Goa. With the arrival of the Jesuit priest Francis Xavier in 1542 proselytisation began in Goa. However, the Portuguese continued to rule over the territory except for an interlude during the latter half of the 17th century when Shivaji conquered a few areas in and around Goa. Even after India's independence, Goa continued to be in the hands of the Portuguese. However, they could not fulfil the aspirations of the Goan people and ultimately on 19 December 1961, Goa was liberated and made a composite union territory with Daman and Diu. On 30 May 1987 Goa was conferred statehood and Daman and Diu was made a separate union territory.

Goa is situated on the western coast of the Indian Peninsula. On its north runs the Terekhol river which separates Goa from Maharashtra and on the south lies North Canara district of Karnataka. On the east lie the Western Ghats and in the west the Arabian Sea. Panaji, Margao, Vasco, Mapusa and Ponda are the main towns of Goa.

AGRICULTURE

Rice is the main food crop. Pulses, ragi and other food crops are also grown. Main cash crops are coconut, cashewnut, arecanut, sugarcane and fruits like pineapple, mango and banana. A support price of ₹ 5000 per ton on sale of paddy crop to designated agencies was provided. Irrigation facilities to 700 farmers under state

and central sector for opening of wells, installation of pump sets, sprinkler system, drop irrigation etc. were launched. "Jalkund" a special project for rainwater harvesting was also launched.

WATER RESOURCES

With the commissioning of dams like Salaulim and Anjunem and other minor irrigation projects, the area under irrigation is rising steadily. The total irrigation potential created by these projects is 43,000 hectare. Released water from Tillari Project to Chandel and Assonara water treatment plants. Deployed anti-sea erosion measures along the beachside for a length of 7.33 kms. Constructed 128 bandharas for water storage. Construction work of 29 bandharas is in progress. Introduced Roof-top rainwater harvesting scheme. Initiated the work of Hydrology project with the help of Union Ministry of Water Resources.

POWER

All villages have been electrified leading to cent per cent coverage. Completed 11 KV underground cabling system in various parts of coastal areas of North Goa and 33 KV cabling from Bhuipal to Vasco, Kadamba sub-station to Panaji sub-station, Margao to Benaullim substation, Monte Hill to Aquem substations and Benaullim to Velim via Cavelossim. Completed the work of erection of 33/11 KV, 6.3 MVA substations at Shiroda, Campal and Ponda. More such substation commissioned in Poinguinim, Sanguem and Cavelossim.

INDUSTRIES

The State has over 7110 small-scale industrial units and 20 industrial estates. Initiated the process of setting up a Bio-incubator with the help of Goa University to promote Goa as Bio Tech destination. Disbursed Rs. 593 lakhs to the EDC under Chief Minister's Rojagar Yojana. Streamlined the procedure for registration of micro, small and medium industries.

FISHERIES

Fish assumes special significance for the State as 90% of the people are fish dietarian. Fisheries is an important industry in the state providing employment and livelihood to around 1.00 lakh people. Financial assistance provided to about 200 beneficiaries for purchase of outboard motors, sea-gill nets, wooden FRP craft etc. 5500 persons covered under group Accident scheme and another 4500 under General Insurance scheme.

ART AND CULTURE

The State has the distinction to have achieved the ISO 9001-2000 certification through the Directorate of Art and Culture. State Cultural Policy framed. Set up Tiatr Academy of Goa. Various schemes such as Kala Sanman, Kalakar Kritadnyata Nidhi are being implemented to assist artists and promote cultural activities. Grants released to 139 institutions working in the field of Art & Culture. Instituted the prestigious Gomant Vibhushan" Award for Goan personalities with global recognition. State-of-the-Art District Library at Margao ready for inauguration. Upgradation work of Rajiv Gandhi Kala Mandir at Ponda is being taken up. New auditoriums and dance drama school to come up. The Ravindra Bhavan projects at Sakhali and Vasco nearing completion.

TRANSPORT

Pension scheme for motorcycle riders has been prepared. Financial assistance is proposed to be provided to such riders, who are in the age group of 40-60 to improve

their living condition. Over 7.27 lakh vehicles registered in Goa, including motorcycles, mini-buses, auto rickshaws and Government vehicles. Spacious "Transport Bhavan" in Panaji planned. Smart Card Driving Licences and dealer level registration of vehicles launched. Already 82,850 Smart Card Driving Licences have been issued.

Roads : Of the motorable roads, national highway constitutes 224 km, state highways 232 km and district roads 815 km.

Railways : Goa is linked with Mumbai, Mangalore and Thiruvananthapuram through the Konkan Railway, which has introduced several fast trains on these lines. Vasco da Gama is connected with Bengaluru and Belgaum on the South Central Railway, presently for goods traffic only.

Aviation : Mumbai, Delhi, Thiruvananthapuram, Cochin, Chennai, Agati and Bengaluru are linked with Dabolim through regular Airlines services.

Ports : Mormugao is the major port in the State. Mormugao handles cargo vessels. Minor ports are located at Panaji, Tiracol, Chapora Betul and Talpona, out of which Panaji is the main operative port. One off-shore berth at Panaji has also been commissioned.

TOURIST CENTRES

Important tourist centres are Colva, Calangute, Vagator, Baga, Harmal, Anjuna and Miramar beaches; Basilica of Bom Jesus and Se Cathedral churches at Old Goa; Kavlem, Mardol, Mangeshi, Bandora temples; Aguada, Terekhol, Chapora and Cabo de Rama Forts; Dudhsagar and Harvalem waterfalls and Mayem lake resort. The state has rich wildlife sanctuaries, viz., Bondla, Cotigao, Molem and Dr Salim Ali Bird Sanctuary at Chorao covering an area of 354 sq km.

FOREST

Goa bagged the Indira Priyadarshani Vriksha Mitra Award along with Kerala. Three fountains installed at Vasco. Master Plan for Bonda Zoo expansion in line with National Standards with an outlay of ₹ 20 crores to be prepared.

HEALTH

Constructed new "Yatri Niwas" for relatives of patients admitted to Goa Medical College. Provided new medical block in GMC with 450 beds. Launched a new Diabetes control programme besides providing insulin to diabetic patients free of cost. Started Neuro Rehabilitation Centre in GMC for treatment of specially abled children. Introduced Mobile Mammography units for speedy detection of breast Cancer. Registered about 14 Rogi Kalyan Samitis. Extended Mediclaim benefit to 1405 patients in 2009. 10 involving an amount of Rs. 16.41 crore. In order to provide dental care at doorsteps of the people Mobile Dental Van procured. A Prosthetic Laboratory upgraded.

GOVERNMENT

<i>Governor</i>	: Dr. Shivinder Singh Sidhu	<i>Chief Secretary</i>	: Shri Sanjay Srivastava
<i>Chief Minister</i>	: Sh. Digamber Kamat	<i>Jurisdiction of High Court</i>	: Goa State Bench of Bombay High Court

GUJARAT

<i>Area</i>	: 1,96,024 sq km	<i>Population</i>	: 5,06,71,017
<i>Capital</i>	: Gandhinagar	<i>Principal Language</i>	: Gujarati

HISTORY AND GEOGRAPHY

The history of Gujarat goes back to 2000 BC. It is believed that Lord Krishna left Mathura to settle on the west coast of Saurashtra which later came to be known as Dwarka, the gateway. Later it saw various kingdoms : Mauryas, Guptas, Pratiharas and others. It was during the rule of Chalukyas (Solankis) that Gujarat witnessed progress and prosperity. In spite of the plunderings of Mahmud Ghazani, the Chalukyan kings were able to maintain general prosperity and well-being of the State. After this glorious respite, Gujarat faced troubled times under the Muslims, Marathas and the British rule. Before Independence, the present territories of Gujarat used to be in two parts - the British and the Princely territories. With the re-organisation of the States, the Union of the States of Saurashtra and the Union Territory of Kachchh along with the former British Gujarat, became a part of the biggest bilingual State of Bombay. The present State of Gujarat came into being on 1 May 1960. It is situated on the west coast of India. The state is bounded by the Arabian Sea on the west, Pakistan and Rajasthan in the north and north-east respectively, Madhya Pradesh in the south-east and Maharashtra in the south.

AGRICULTURE

Gujarat is the main producer of cotton, groundnut and tobacco in the country and provides inputs for important industries like textiles, oil and soap. Other important cash crops are Isabgol, paddy, wheat and bajra. Forest species available in Gujarat are sasad, haldariyo and manual bamboos.

INDUSTRY

The number of registered working factories in the State was 23,942 (Provisional) at the end of 2008 with the average daily employment of 11.75 lakh. The number of small-scale industrial units in the State was 3.56 lakh at the end of September 2009. Gujarat Industrial Development Corporation (GIDC) has been assigned the role of developing industrial estates with infrastructure facilities. At the end of year 2008-09 GIDC had set up 257 industrial estates.

IRRIGATION AND POWER

The total irrigation potential through surface water as well as ground water has been assessed at 64.88 lakh hectare including 17.92 lakh hectare through Sardar Sarovar (Narmada) Project. The total irrigation potential created up to June 2009 is worked out to 30.99 lakh hectare. The maximum utilisation has been estimated at 23.79 lakh hectare up to June 2009.

ELECTRICITY

The total installed capacity for the state including central sector project has increased to 11636 MW as on 31 March 2009. All the villages have been covered under the scheme **Jyoti Gram Yojana** of Gujarat State Government.

TRANSPORT

Roads : The total length of roads (except Non-plan, Community, Urban and Project roads) was 74,038 km by the end of 2005-06.

Aviation : The main airport of Gujarat at Ahmedabad is connected with Mumbai, Delhi and other cities by daily services. Ahmedabad airport has now got the status of an International Airport. Other domestic airports are Vadodara, Bhavnagar, Bhuj, Jamnagar, Rajkot and Surat.

Ports : Gujarat has 41 minor and intermediate ports and one major port is Kandla port. The intermediate and minor ports of Gujarat handled a total cargo of 1497.34 lakh tonne whereas Kandla port handled cargo of 512.52 lakh tonne during 2009-10 (April-November 2009).

FESTIVALS

Tarnetar fair is held at village Tarnetar in the honour of Lord Shiva on the 4th, 5th, and 6th days of the bright half of the month of Bhadrapada (August/September). Madhavrai fair at Madhavpur near Porbandar is held to celebrate the marriage by elopement of Lord Krishna and Rukmani, on the ninth day of the bright half of the month of Chaitra (March/April). Ambaji fair dedicated to Amba-mother goddess is held in Banaskantha district. The biggest annual fair and Janmashtami the birthday of Lord Krishna is celebrated at Dwarka and Dakor with great enthusiasm. Other festivals are Makar-Sankranti, Navratri, Dangi Darbar, Shamlaji fair and Bhavnath fair.

TOURIST CENTRES

Religious centres like Dwarka, Somnath, Palitana, Pavagadh, Ambaji, Bhadreshwar, Shamlaji, Taranga and Girnar; Porbandar the birthplace of Mahatma Gandhi; places of memorable monuments of architectural and archaeological wonders like Patan, Siddhpur, Ghurnli, Dabhoi, Vadnagar, Modhera, Lothal and Ahmedabad; Beaches like Ahmadpur-Mandvi, Chorvad, Ubharat, and Thital; the Hill station-Saputara; Lion sanctuary of Gir forest and wild life sanctuary in Katchchh area are major tourist attractions in the State.

GOVERNMENT

<i>Governor</i>	: Dr. Kamla Beniwal	<i>Chief Secretary</i>	: A.K. Jyoti
<i>Chief Minister</i>	: Shri Narendra Modi	<i>Jurisdiction of High Court</i>	: Gujarat State

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population (2001 Census)	Headquarters
Ahmedabad	8,087	58,16,519	Ahmedabad
Amreli	7,397	13,93,918	Amreli
Anand	2,941	18,56,872	Anand
Banaskantha	10,757	25,04,244	Palanpur
Bharuch	6,527	13,70,656	Bharuch

Bhavnagar	9,981	24,69,630	Bhavnagar
Dohod	3,646	16,36,433	Dohod
The Dangs	1,764	1,86,729	Ahwa
Gandhinagar	2,163	13,34,455	Gandhinagar
Jamnagar	14,125	19,04,278	Jamnagar
Junagadh	8,846	24,48,173	Junagadh
Kheda	4,219	20,24,216	Nadiad
Kachchh	45,652	15,83,225	Bhuj
Mahesana	4,384	18,37,892	Mahesana
Narmada	2,755	5,14,404	Rajpipla
Navsari	2,209	12,29,463	Navsari
Panchmahal	5,220	20,25,277	Godhara
Patan	5,730	11,82,709	Patan
Porbandar	2,298	5,36,835	Porbandar
Rajkot	11,203	31,69,881	Rajkot
Sabarkantha	7,390	20,82,531	Himatnagar
Surat	7,657	49,95,174	Surat
Surendranagar	10,489	15,15,148	Surendranagar
Vadodara	7,549	36,41,802	Vadodara
Valsad	3,035	14,10,553	Valsad

HARYANA

Area : 44,212 sq km

Population : 2,11,44,564

Capital : Chandigarh

Principal Language : Hindi

HISTORY AND GEOGRAPHY

Haryana has a proud history dating back to the Vedic Age. The State was home to the legendary Bharata dynasty, after which the country was named Bharat. The land of Haryana has been the cradle of Indian culture and civilization. Archaeological investigations done by Guy E. Pilgrim in 1915 established that 15 million years ago, the early man lived in the Haryana Shivaliks. *Vamana Purana* states that King Kuru ploughed the field of Kurukshetra with a golden plough, drawn by the Nandi of Lord Shiva, and reclaimed an area of seven 'kosas'.

Replete with myths, legends and Vedic references, Haryana's past is steeped in glory. It was on the soil of Haryana that saint Ved Vyas wrote *Mahabharata*. It was here that Lord Krishna preached the gospel of duty to Arjuna about 5,000 years ago. It was here that the epic battle of Mahabharata was fought. Being the gateway to north India, the region has been the battleground of many a war. The Huns, the Turks and the Tughlaqs invaded India and decisive battles were fought on this land. At the end of the 14th, century. Tamur led an army through this area to Delhi. Later, the Mughals defeated the Lodhis in the historic battle of Panipat in 1526. Another decisive battle was fought in 1556 at this very site, establishing the supremacy of the Mughals up to the advent of the British rule, and the rise of Delhi as the imperial capital of India.

Bold in spirit and action, the people of Haryana have always formed a bulwark work against the forces of aggression and anti-nationalism. In fact, the history of Haryana reads like the saga of the struggle of a righteous, forthright and proud people of the state, known for their traits of bravery and valour.

An adjunct to Delhi, Haryana practically remained anonymous until the First War of India's independence in 1857. After the British crushed the rebellion, they deprived the Nawabs of Jhajjar and Bahadurgarh, the Raja of Ballabgarh and Rao Tula Ram of Rewari in Haryana region, of their territories. These were either merged with British territories or handed over to the rulers of Patiala, Nabha and Jind, making Haryana a part of the Punjab province. With the reorganization of Punjab on 1 November 1956. Haryana was born as a full-fledged state. Strategically located, Haryana is bounded by Uttar Pradesh in the east, Punjab in the west, Himachal Pradesh in the north, and Rajasthan in the south. The National Capital of Delhi juts into Haryana. With just 1.37 per cent of the total geographical area and less than two per cent of India's population, Haryana has carved a place of distinction for itself. Whether it is agriculture or industry, canal irrigation or rural electrification, Haryana keeps marching towards modernity. The state enjoys the unique distinction of being among the first to provide electricity, metalled roads and potable drinking water to all its villages. Ranked among the most prosperous states in India, Haryana has the second highest per capita income in the country, after Goa.

AGRICULTURE

Agriculture is the mainstay of more than 65 per cent population in Haryana with the second largest contribution to the food bowl of the country. The quantum of foodgrains production, which was nearly 25.92 lakh tonne at the time of inception of the state is likely to touch 155.5 lakh tonne in 2009-10 due to crop intensification and increase in production of principal crops. Rice, wheat, *jowar*, *bajra*, maize, barley and pulses, sugarcane, cotton, oilseeds and potato are the major crops of the state. Under the diversification of crops, more and more area is being brought under cash crops like sugarcane, cotton and oilseeds, vegetable and fruits. Sustainable agriculture is being promoted through the propagation of resource conserving technologies and organic farming. Dhaincha and Moong have also been encouraged to maintain soil fertility.

IRRIGATION

The 1,429-strong network of canals constitutes the bedrock of the irrigation system in Haryana with 6.83 lakh tubewells and pumpsets playing no mean role. 1,92,980 hectare of land is under agriculture in the state. Starting with 20,000 tubewells in 1966, the state had 4.91 lakh tubewells in March, 2010. The major irrigation projects in the state are Western Yamuna Canal System, Bhakra Canal System, and Gurgaon

Canal System. Giving practical shape to the lift irrigation system for the first time in India, Haryana has raised water from lower levels to higher and drier slopes through the JLN Canal Project. Haryana is among the beneficiaries of the multipurpose Sutlej-Beas project, sharing benefits with Punjab and Rajasthan.

The Jui, Siwani, Loharu and Jawahar Lal Nehru lift irrigation schemes have helped carry irrigation water against the gravity to the arid areas. Besides, sprinkler and drip irrigation have been introduced in the highly undulating and sandy tracks of Haryana. The construction work on the Hathni Kund barrage has been completed at the cost of ₹ 192 crore. While Haryana and Uttar Pradesh would get additional water for irrigation purposes from the barrage, it will also help Delhi quench its thirst, to some extent.

With a view to ensuring equitable distribution of water for irrigation and drinking purposes throughout the state, the Irrigation Department has constructed the 109 km Bhakra Main Line-Hansi Branch-Buttana Branch Multipurpose Link Channel at the cost of ₹ 392 crore. It has been designed to take 2,086 cusecs of Ravi-Beas waters, being received through the Bhakra Main Line, to the Yamuna Canal and lift canal commands.

During the monsoon season, the Hansi-Bhutana channel will help grow paddy, and raise the sub-soil water level in the adjoining areas. The construction work on the channel has been completed, except for the part linking it with the Bhakra Main Line. Water in the Hansi-Bhutana Canal can be released after the legal issues are resolved. And efforts are being made to resolve these issues.

With a view to utilizing the surplus waters of the Yamuna during the rainy season, the Dadupru-Shahbad Nalvi Canal project has been taken up at an estimated cost of ₹ 267.27 crore. The construction work is in full swing on the project which will facilitate use of about 590 cusecs of surplus flood waters for irrigation purposes and recharging of the groundwater in 92,532 hectare falling in the districts of Yamuna Nagar, Ambala and Kurukshetra. The length of the canal along with its distribution system, is 185 km. The first phase of the project has already been inaugurated by the Haryana Chief Minister. Besides, the Shahbad Feeder and Shahbad Distributary have also been made functional.

The state government is setting up four low-height dams namely, Kaushalya Dam, Dangrana Dam, Dewanwala Dam and Chhambra Dam, at an estimated cost of ₹ 180 crore, ₹. 63.69 crore, ₹132.7 crore and ₹ 20.41 crore, respectively, on the Ghaggar river and its tributaries to prevent wasteful flow of water and loss to property due to floods. The construction work on Kaushalya Dam is nearing completion. Vigorous efforts are being made to bring the dam to its full height before the onset of the monsoon season to facilitate flow of the surplus waters into the spillway.

POWER

The first state in the country to have achieved hundred per cent rural electrification way back in 1970, Haryana is well on way to becoming power surplus from a power deficit state. The average power availability in 2009-10 was 875 lakh units per day, and the number of consumers 45.6 lakh. The total installed generation capacity available with Haryana is 5801.82 MW. Out of this, the Haryana Power Generation Corporation Limited has an installed generation capacity of 3230.5 MW, comprising 1367.8-MW Panipat Thermal Power Station, Panipat; 1200-MW Rajiv Gandhi Thermal Power Project, Hisar; 600 MW Deen Bandhu Chhotu Ram Thermal Power Project, Hisar; and 62.7-MW WYC Hydro Electric Station, Yamuna

Nagar. The balance comes from Haryana's share in the central sector generating stations and from long-term power contracts.

The Haryana Government is well on its way to fulfilling the commitment made to the consumers by adding 5,000 MW generation capacity during the 11th Five-Year Plan. With a view to meeting the growing demand of power in the State, new power projects are being set up.

EDUCATION

Haryana is shaping into a modern Takshila. Making elementary education available at reachable distance to all children, and opening/bringing a large number of institutes of higher learning, offering global standard education, the state is moving fast and forward on the road to becoming a hub of education. According to 2001 census, the literacy rate in Haryana is 67.91 per cent against the all India literacy rate of 65.38 per cent. Haryana's female literacy rate is 55.73 per cent and male literacy rate 78.49 per cent. The rural population is served by primary schools/sections within a distance of 1.06 km; middle schools within a distance of 1.23 km; high schools within a distance of 1.53 km; and senior secondary schools within a distance of 2.3 km.

The State Government is committed to bringing quality education to students nearer their homes. Today, 13,052 primary schools, 3,476 middle schools, 3,306 high schools, 2,576 senior secondary schools, 654 colleges, 151 polytechnical colleges, 141 engineering colleges, 157 MBA colleges, 54 MCA colleges, 32 B. Pharmacy colleges, 109 industrial training institutions, and eight universities are catering to the needs of the student in every nook and corner of the State. Besides, there are 112 Central Schools and 19 Jawahar Navodaya Schools in the state. The infrastructure created under the District Primary Education Programme (DPEP) and the involvement of local self governments under centralized planning, have greatly contributed to better physical and basic facilities.

INDUSTRY

The investment and industry-friendly policies pursued by the state government have made Haryana the cynosure of all investing eyes, and put the state on threshold of industrial revolution. Small wonder, there are more than 1,354 large and medium and 80,000 small-scale units dotting the industrial landscape in the State. Haryana today is the largest producer of passenger cars, tractors, motorcycles, bicycles, refrigerators, scientific instruments, etc. Besides, it is the largest exporter of basmati rice. Panipat handlooms and carpets are known all over world besides its lip-ticking Panchranga Achaar.

Between July 1991 and May 2008, 3,914 Industrial Entrepreneur Memorandums (IEMs) were filed. Out of these 2,274 IEMs were implemented with capital investment of ₹ 24,034 crore and generating jobs for 4,02,129 persons. Since the adoption of the new Industrial Policy in 2005, Haryana has received more than 100 proposals for setting up Special Economic Zones (SEZs), involving an investment of ₹ 2 lakh crore. On implementation, these would generate lakhs of jobs.

HEALTH

The healthcare has been made both affordable and reachable by setting up a state-wide network of district and sub-divisional hospitals. These are being beefed up with staff and equipment and deficiencies in referral services are being removed. The state-wide network of health centres includes 52 hospitals, 94 community health

centres, 441 primary health centres, 2,465 sub-centres, 15 district TB Centres, 639 Ayurvedic, Homeopathy & Unani Centres, 16 urban health posts, the Post-Graduate Institute of Medical Education & Research at Rohtak, and Medical Colleges at Agroha (Hisar) and Mullana (Ambala). Besides, as many as 516 Delivery Huts have been set up to provide delivery services in clean and hygienic environment. Major infrastructural improvements are being made to upgrade the existing health institutions to the Indian Public Health standards.

INFORMATION TECHNOLOGY

Releasing the importance of Information Technology in the globalized world, the state government has formulated an IT Policy which provides several incentives for setting up Technology Parks, Cyber Cities, IT corridors and ITES industry in the State. Haryana has emerged as a preferred investment destination for IT industry as well. Out of the total 46 SEZs formally approved for the state, 35 are in the IT sector. Of these, three IT SEZs are in an advanced stage of completion. In addition, the state has okayed 33 proposals for setting up IT/Cyber Parks. The software exports from Haryana now aggregated ₹ 21,000 crore.

The IT Department has taken concrete steps for the creation of the enabling infrastructure for connectivity, State Data Centre and front-end service providers in the form of Community Service Centres. Haryana is the first state to have implemented its State-wide Area Network (SWAN) at the cost of ₹ 102.62 crore for voice, data and video transmission. Vertically, all district headquarters and 126 Sub Divisional/Block/Tehsil headquarters are now covered through the SWAN. Horizontally, about 900 offices of various departments located across the State are in a position to use the connectivity services. Steps are being taken to expand the network to bring another 500 offices under the cover.

SCHEDULED CASTES AND BACKWARD CLASSES

Fully committed to the welfare of the Scheduled Castes, Denotified Tribes and Backward Classes, the Haryana Government has launched countless number of schemes for their social-economic empowerment. Some of these schemes are:

Mahatma Gandhi Gramin Basti Yojana: Under this scheme, free residential plots of 100 sq yards each are allotted to eligible SCs, BCs (A) and BPL families. Mukhya Mantri Anusuchit Jatti Nirmal Basit Yojana: The main objective of the scheme is to provide basic infrastructure in villages having more than 50 per cent SC population. Scheme for development of Municipal wards with more than 50% SC population; Scheme for development of SC Bastis (New proposed Scheme under SCSP); Indira Gandhi Drinking Water Scheme; India Gandhi Priyadarshini Viwah Shagun Yojna; Housing scheme for Scheduled Castes and Denotified Tribes, Incentive for Inter-Caste Marriage, Monetary relief for the victims of atrocities; encouragement award to panchayats; oriented institutes/training programmes.

TRANSPORT

Road and rail transport are the main carriers of passenger traffic in Haryana with aviation too playing a small role. Haryana is one state where all villages are linked with metalled roads. The length of the roads in the state is more than 35,303 km. Haryana Roadways number of buses is 3246.

Then, railways play an important role in carrying both interstate and intra-state passengers. Kalka, Ambala, Kurukshetra, Panipat, Rohtak, Jind, Hisar and Jakhal

are important railway stations. There is a railway workshop at Jagadhari. Aviation too plays its role. There are civil aerodromes at Pinjore, Karnal, Hisar, Bhiwani and Narnaul.

TOURIST CENTRES

A pioneer in highway tourism, Haryana has set up a vast network of 43 tourist complexes all over the state. Having 846-roomed accommodation in the various outfits, Haryana Tourism attracts 63 lakh tourists every year. The state government has adopted a multi-pronged strategy to promote tourism. Tourist complexes have been set at strategic points along the highways passing through the state and tourist complexes have been developed around Delhi with the intent of promoting leisure tourism and conference tourism.

Besides, tourist facilities have been set up at the district headquarters, and in important towns, to cater to the needs of tourists and local people. Some of the important tourist complexes are Surajkund and Baddhkal Lake near Delhi; Sultanpur birds sanctuary (Sultanpur); Sohna and Damdama in Gurgaon; and the fascinating pocket of pines in the Morni Hills. The other important resorts are ethnic India Rai, Blue Jay (Samalkha), Skylark (Panipat), Karna Lake and Oasis (Uchana), Parakeet (Pipli), Kingfisher (Ambala), Magpie (Faridabad), Dabchick (Hodal); Shama (Gurgaon); Jungle Babbler (Dharuhera); Gaurriyya (Bahadurgarh); Myna (Rohtak); Blue Bird (Hisar); Red Bishop (Panchkula); and Pinjore Gardens (Pinjore).

GOVERNMENT

<i>Governor</i>	: Shri Jagannath Pahadia	<i>Chief Secretary</i>	: Smt Urvashi Gulati
<i>Chief Minister</i>	: Bhupinder Singh Hooda	<i>Jurisdiction of High Court</i>	: Punjab and Haryana

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS (Census 2001)

District	Area (sq km)	Population	Headquarters
Ambala	1,574	10,14,411	Ambala
Bhiwani	4,778	14,25,022	Bhiwani
Faridabad	743 (p)	13,65,465 (p)	Faridabad
Fatehabad	2,538	8,06,158	Fatehabad
Gurgaon	1,254	8,70,539	Gurgaon
Hisar	3,983	15,37,117	Hisar
Jhajjar	1,834	8,80,072	Jhajjar
Jind	2,702	11,89,827	Jind
Kaithal	2,317	9,46,131	Kaithal
Karnal	2,520	12,74,183	Karnal
Kurukshetra	1,530	8,25,454	Kurukshetra
Mahendergarh	1,899	8,12,521	Narnaul
Panchkula	898	4,68,411	Panchkula
Panipat	1,268	9,67,449	Panipat

Rewari	1,594	7,65,351	Rewari
Rohtak	1,745	9,40,128	Rohtak
Sirsa	4,277	11,16,649	Sirsa
Sonipat	2,122	12,79,175	Sonipat
Yamuna Nagar	1,768	10,41,630	Yamuna Nagar
Mewat	1,500 (p)	7,89,750 (p)	Nuh
Palwal	1,368 (p)	8,29,121 (p)	Palwal
Total	44,212	2,11,44,56	

P-Provisional

HIMACHAL PRADESH

<i>Area</i>	: 55,673 sq km	<i>Population</i>	: 60,77,900 (Census 2001)
<i>Capital</i>	: Shimla	<i>Principal Languages</i>	: Hindi and Pahari

HISTORY AND GEOGRAPHY

Himachal situated in the heart of the Western Himalaya, identified as “Dev Bhumi” is believed to be the abode of Gods and Goddesses. The entire State is punctuated with stone as well as wood temples. The rich culture and traditions have made Himachal unique in itself. The shadowy valleys, rugged crags, glaciers and gigantic pines and roaring rivers and exquisite flora and fauna compose the symphony that is for ever Himachal.

Himachal Pradesh came into being as a Union Territory in April 1948 as a result of integration of 30 princely states spread over 27,000 sq.km. In 1954, when another “C” class state of Bilaspur merged in Himachal Pradesh, its area increased to 28,241 sq.km. The position remained unchanged till 1966. On reorganisation of the State, the hilly areas of Punjab were merged with the State, increasing its size to 55,673 sq.km. Himachal Pradesh today is quoted as a successful model of not only hill area development but also for having realised development in education, health and social services.

AGRICULTURE

Agriculture being the main occupation of the people of Himachal Pradesh has an important role in the economy of the state. It provides direct employment to about 69 per cent of the main working population. Income from agriculture and allied sectors accounts for nearly 22.1 per cent of the total State Domestic Product. Out of the total geographical area of 55,673 sq. km., area of operational holding is about 9.79 lakh hectare owned by 9.14 lakh farmers. The marginal and small farmers possess 86.4 per cent of the total land holdings. The cultivated area in the state is only 10.4 per cent. About 80 per cent of the area is rain fed and farmers depend on weather gods for rains. The food grain production in 2007-2008 has been 14.40 lakh M.tonnes.

HORTICULTURE

Nature has endowed Himachal Pradesh with a wide range of agro-climatic conditions which have helped the farmers to cultivate large varieties of fruits ranging from temperate to sub-tropical. The main fruits under cultivation are apple, pear, peach, plum, apricot and citrus fruits like mango, litchi, guava and strawberry. The total

area under fruits, which was only 792 hectare in 1950 has increased to 2.23 lakh hectare now. Similarly, the fruit production has also increased from 1200 MT in 1950 to 6.95 lakh tonne in 2007. Horticulture generates gross domestic income of about Rs. 2200 crore annually.

The Horticulture Technology Mission for the integrated development of horticulture is being implemented with a total outlay of ₹ 80 crore during the tenth five-year plan period. This Mission is based on the “end to end approach” taking into account the entire gamut of horticulture development with all backward and forward linkages in a holistic manner. Under this scheme, four centres of excellence are being created in different Agro-Climatic Zones with common facilities like water harvesting, vermicompost, greenhouses, organic farming and farm mechanisation.

ROADS

Roads are the lifelines and major means of communication in the predominantly hill State of Himachal Pradesh. Out of its 55,673 sq. km area, 36,700 sq. km is inhabited out of which 16,807 inhabited villages are scattered over slopes of numerous hill ranges and valleys. Realising the importance of construction of roads for connecting production areas with market centres, Himachal Pradesh Government has decided to connect every panchayat with roads in the next two years. When the Pradesh came into existence in 1948 there were 288 km. of roads. This number has gone up to 33,171 km by 15 August 2010.

HYDRO-POWER GENERATION

Himachal Pradesh has immense hydro-potential in its five river basins. Chenab, Rabi, Beas, Satluj and Yamuna which emanate from the western Himalayas pass through the State. The strategy of development in the power sector comprises expeditious actualisation of the Hydro Electric Potential and introduction of power sector reforms to bring efficiency in the sector and provide high quality power to the consumers at reasonable rates besides availability of abundant power to industrial and tourism sectors. The total identified potential in the State stands at 23,230 MW which is one fourth of India's total hydro-power potential. Presently out of this 6,480 MW has already been harnessed by various agencies. Projects aggregating to 7,602 MW are under execution. It is on the cards that the State will have about 11,000 MW actualised potential by the end of 12th Plan.

There is no denying this fact in view of the way the Government has embarked upon an accelerated Power Development Programme. The State is speedily moving towards becoming a “Power State” of the Country. All the census villages in the State have been electrified and now left-out hamlets are being covered.

INDUSTRIAL GROWTH

Industrial development has been given big boost in the State. Pollution free environment, abundant availability of power and rapidly developing infrastructure, peaceful atmosphere, and responsive and transparent administration are some of the added attractions and advantages that the entrepreneurs get in Himachal Pradesh. 349 large and medium and about 33,284

small-scale industrial units with an investment of about Rs. 4,822.54 crore have been set up in the state generating employment for 2 lakh persons. The sector is contributing 17 per cent to the State Domestic Product and the annual turnover on this account is about Rs. 6,000 crore.

The State has formulated a new Industrial Policy and Incentive Rules, 2004, which provides attractive packages to the entrepreneurs for setting up Industrial Units in the State. 42 industrial areas and 15 Industrial Estates with all basic amenities have been developed in the State.

With a view to providing umbrella support to existing and new ventures, the State government has set up a State Level Single Window Clearance and Monitoring Authority (SLSWCMA) in Himachal Pradesh under the Chairmanship of Chief Minister to give permission to the entrepreneurs to set up industrial units in the State. This also solves all industry related and inter-departmental issues, monitors and reviews the progress of units already approved and proposed to be set up. This Authority is also focusing its attention on the development of quality infrastructure. Presently 7040 industrial units with an investment of about Rs. 27,380.99 crore envisaging employment to about 3 lakh persons have been approved. A proposal is also underway for setting up Special Economic Zone in Kangra, Una and other districts with an estimated cost of Rs.7,580 crore. The State Government is also giving several attractive incentives including exemptions in excise duty.

INFORMATION TECHNOLOGY

The Government of Himachal Pradesh has developed an IT Vision-2010 in collaboration with NASSCOM to make Himachal Pradesh an IT destination. Under the IT policy, it has been decided to accord the status of industry to all IT projects including IT related services and educational institutions. As such, all the incentives available for industrial units are also being given to all IT units, and IT related services.

The use of IT in governance is aimed at having SMART (Simple, Moral, Accountable, Responsive and Transparent) government. The State Government official website at <http://himachal.nic.in> is a web portal providing citizen-centric services to the citizens and it has got interfaces for getting inputs from the grass root level. Ist phase of the H.P. State-wide Area Network (HIM SWAN) which has been completed has been connected to internet. In the Phase-I of HIMSWAN, H.P. Secretariat Local Area Network has been established with a provision to provide LAN connectivity to every third person. In the Phase-II of HIMSWAN all the district headquarters will be connected with state headquarter. Software Technology Park and High Speed Data Connectivity Facility in Shimla has started its activities. All IT units in the State had been given Income Tax holiday up to year 2007. Information Technology Park is proposed to be set up in the State in Solan district.

BIO-TECHNOLOGY

Keeping in view the importance of bio-technology, special emphasis is being laid on exploiting the vast bio-technology potential available in the state. A separate Department of Bio-technology has been set up in the state. State's own bio-technology

policy has been formulated. All bio-technological units are entitled for incentives which have been allowed for industrial units. The State Government proposes to set up a Bio-Technology Park in Solan District.

IRRIGATION AND WATER SUPPLY

Net sown area in the State was 5.83 lakh hectare till 2007. Villages have been provided with the facility of drinking water. Over 15,000 hand pumps have been installed in the State so far. For better reform in water supply and irrigation sector, the State Government has taken up a WASH project with the total cost of Rs. 339 crore for irrigation as well as for drinking water supply schemes with Gesellschaft for Technische Zuoammeuorbeit (GTZ).

FORESTRY

The total geographical area of the state is 55,673 sq km. As per record, the total forest area is 37,033 sq. km. Out of this, 16,376 sq. km. area is not fit for tree growth comprising alpine pastures, area under permanent snow, etc. The cultivable recorded forest area is only 20,657 sq. km.

Efforts are being taken to bring maximum area under green cover by implementing State's own projects, Government of India's projects and also through external aided projects. The World Bank has also sanctioned a Rs. 365 crore Integrated Watershed Development Project for the Mid Himalayas. 545 panchayats of 42 developmental blocks in 10 districts would be covered during the next six years. There are 2 National Parks and 32 wildlife sanctuaries in the State. Total area under wildlife sanctuaries is 5562 sq. km; area under National Parks is 1440 sq. km and total area of Protected Area Network is 7002 sq. km.

EDUCATION

Himachal Pradesh has emerged as the third best State in terms of over-all development and performance. Himachal Pradesh has been adjudged number one State in Primary Education and teacher-student ratio. Himachal Pradesh has witnessed literacy revolution as it is second only to Kerala in literacy. The State has about 17,000 educational institutes, including three Universities, two Medical Colleges, one Engineering College in the Government Sector and a number of technical, professional and other educational institutions. The literacy percentage of the State according to 2001 Census is 77.13 which is much higher than the national average of 65.38. The State Government's emphasis now is to ensure qualitative improvement in the education besides need based expansion. Sarva Siksha Abhiyan an ambitious project worth ₹ 532 crore is being evolved with the main objective of achieving universalisation of elementary education with the sole aim to spread the light of knowledge to every nook and corner of the State.

TOURISM

Tourism Industry in Himachal Pradesh has been given very high priority and the Government has developed an appropriate infrastructure for its development which includes provision of public utility services, roads, communication network, airports, transport facilities, water supply and civic amenities, etc. The State Government is poised to transform the State into "A Destination for All Seasons and All Reasons". The State Tourism Development Corporation contributes 10 per cent to the State

exchequer. The corporation contributes more than ` 200 crore per annum by way of Sales tax, luxury tax and passanger tax. In the year-2007, tourist arrivals in the State were 8.3 million.

The State has a rich treasure of places of pilgrimage and of anthropological value. The State has also the pride of being the home to *rishis* like Vyas, Parashar, Vashist, Markandey and Lamas, etc. Hot water springs, historic forts, natural and man-made lakes, shepherds grazing their flock are sources of immense pleasure and joy to the tourist.

The State Government is aiming at promoting sustainable tourism, encouraging private sector to develop tourism-related infrastructure in the State without disturbing the existing ecology and environment. The main thrust is on employment generation and promoting new concepts of tourism in the State. In order to increase the duration of the stay of the visitors/tourists, special emphasis is being laid on the development of activities based on tourism.

For the promotion and development of the State from the tourism point of view, the Government is focusing on the following areas : (1) History related tourism, (2) Identification of new areas/tourist destinations and promotion of village tourism. (3) Improvement of infrastructure, (4) Pilgrimage tourism. (5) Tribal tourism. (6) Eco-tourism. (7) Health tourism. (8) Promotion of adventure tourism. (9) Wildlife tourism. (10) Cultural tourism.

GOVERNMENT

<i>Governor</i>	: Ms. Urmila Singh	<i>Chief Secretary</i>	: Ms. Rajwant Sandhu
<i>Chief Minister</i>	: Prof. Prem Kumar Dhumal	<i>Jurisdiction of High Court</i>	: Himachal Pradesh

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population (2001 Census)	Headquarters
Bilaspur	1,167	3,40,885	Bilaspur
Chamba	6,528	4,60,887	Chamba
Hamirpur	1,118	4,12,700	Hamirpur
Kangra	5,739	13,39,030	Dharamshala
Kinnaur	6,401	78,334	Reckong Peo
Kullu	5,503	3,81,571	Kullu
Lahaul & Spiti	13,835	33,224	Keylong
Mandi	3,950	9,01,344	Mandi
Shimla	5,131	7,22,502	Shimla
Sirmaur	2,825	4,58,593	Nahan
Solan	1,936	5,00,557	Solan
Una	1,540	4,48,273	Una

JAMMU AND KASHMIR

<i>Area</i> : *2,22,236 sq km	<i>Population</i> :	1,01,43,700 (2001 Census)
<i>Capital</i> : Srinagar (Summer) Jammu (Winter)	<i>Principal Languages</i> :	Urdu, Dogri, Kashmiri, Pahari, Punjabi, Ladakhi, Balti, Gojri and Dadri

HISTORY AND GEOGRAPHY

According to the most popular legend that is also recorded in *Rajtarangani* and *Nilmat Purana*, two most authoritative books, Kashmir was once a large lake and it was Kashyap Rishi who drained off the water, making it a beautiful abode. But geologists have their own theory, which says that geographical changes made way for the outflow of water by subsidence of the mountain at Khadianayar, Baramulla and thus emerged the Valley of Kashmir, the paradise on earth. Ashoka introduced Buddhism to Kashmir in the 3rd century B.C. which was later strengthened by Kanishka. Huns got the control of the valley in the early 6th century. The Valley regained freedom in 530 AD but soon came under the rule of the Ujjain empire. After decline of the Vikramaditya dynasty, the valley had its own rulers. There was a synthesis of Hindu and Buddhist cultures. Lalitaditya (697-738 AD) extended his rule up to Bengal in the east, Konkan in the south, Turkistan in the north-west and Tibet in the north-east. Considered as the most famous Hindu ruler, he was known for constructing beautiful buildings. Islam came to Kashmir during 13th and 14th centuries AD. Zain-ul-Abedin (1420-70) was the most famous Muslim ruler, who came to Kashmir when the Hindu king Sinha Dev fled before the Tatar invasion. Later Chaks overran Haider Shah son of Zain-ul-Abedin. They continued to rule till 1586 when Akbar conquered Kashmir. In 1752, Kashmir passed on from the feeble control of the Mughal emperor of the time, to Ahmed Shah Abdali of Afghanistan. The Valley was ruled by the Pathans for 67 years.

Name of Jammu figures in the *Mahabharata*. Recent finds of Harappan remains and artefacts of Mauryan, Kushan and Gupta periods at Akhnoor have added new dimensions to its ancient character. The land of Jammu was divided into 22 hill principalities. Raja Maldev, one of the Dogra rulers, conquered many territories to consolidate his kingdom. Raja Ranjit Dev ruled over Jammu from 1733 to 1782. His successors were weak and thus Maharaja Ranjit Singh annexed the territory to Punjab. He later handed over Jammu to Raja Gulab Singh, a scion of the old Dogra ruling family, who had grown powerful among Ranjit Singh's governors and had annexed almost the whole Jammu region. The State was governed by Dogra rulers till 1947 when Maharaja Hari Singh signed the Instrument of Accession in favour of the Indian Union on 26 October 1947.

Jammu and Kashmir State is situated between 32° 15' and 37°-05' north latitude and 72°-35' and 83°-20' longitude East. Geographically, the State can be divided into four zones. First, the mountainous and semi mountainous plain commonly known as Kandi belt, the second, hills including Shivalik ranges, the third mountains of Kashmir Valley and Pir Panchal range and the fourth is Tibetan tract of Ladakh and

* includes 78,114 sq km under illegal occupation of Pakistan, 5,180 sq km illegally handed over by Pakistan to China and 37,555 sq km under illegal occupation of China. The population figures excludes population of areas under unlawful occupation of Pakistan and China where census could not be taken.

Kargil. Geographically and culturally the state has three distinct regions—Jammu, Kashmir and Ladakh.

Roads : The State is connected to the rest of the country through just one highway (NH 1A), 400 km stretch (approx) maintained by Border Roads Organization (BRO) of India. As Railway network of the State is in infancy stage, this has rendered the State totally dependent on road connectivity which provides links to the remote areas of the State. The Jammu-Srinagar National Highway (NH1A) is considered to be the most expensive road for maintenance in the world.

Out of 9933 habitations only 2735 habitations are yet to be connected. A total length of 18961 km of road is being maintained by PWD. Out of this 9901 km is black topped, 4710 km metalled, 1257 km shingled, 2941 km fair-weather and 152 km is Jeepable. The road length maintained by the State PWD was 14858 km (12209 km surfaced and 2749 km un-surfaced) during 2002-03.

Road length maintained by Public Works Department ending March 2009 stood at 18961 kms in J&K State. PWD road length per hundred sq. kms of area for the State gives the value of 18.70 km. However, (PWD) road length per lakh of population gives better picture of 154.34 km. Number of vehicles per 100 km of road length for the State stands at 3525 vehicles for roads maintained by PWD during the year 2008-09. The number of vehicles has grown upto 6.68 lakh in 2008-09 from 3.64 lakh in 2001-02 showing an exponential growth rate of 8.00 percent per annum during the period. The road length at the end of the 2008-09 maintained by PWD is 18,961 kms whereas the total public and private vehicular fleet of the State is 6,68,427 vehicles. The number of registered vehicles per 100 sq. km of areas is 659 while the number of vehicles registered per lakh of people is 5,342.

At the end of March 2009 road length maintained by all the departments in the State was 40,818 km, of which 24,608 kms were surfaced and remaining 16,210 km un-surfaced. The road density (road length per 100 sq. km of area) of the State thus works out to be 40.26 km against the National Average of 104.6 km. With this road density, J&K is among the States with lowest road density in the country, thus hampering opening up of the economy and adversely affecting delivery of public services to the people. Moreover, there are huge inter-district variations in the rural road density.

Railways : Because of the difficult terrain Railway network has not developed as in other parts of the country. At present Jammu is the Rail head of the State and the line has been extended upto District Udhampur only (90 kms). The work on Udhampur-Qazigund rail line is under progress and intra rail link between Quzigund to Baramulla is complete. However the railway traffic has been thrown open from Baramulla to Qazigund.

Aviation : There are three major airports in the state providing aerial transport among three regions of the State and the country. Out of the three Srinagar airport has been upgraded as international airport named as Sheikh-ul-Alam Airport, while the facilities at Jammu and Leh airports are also being upgraded. One more airport at Kargil headquarters is connected by Dakota service.

Commissioning of Sheikh-ul-Alam International Airport at Srinagar has opened the new vistas for enhancing connectivity at International level which will in turn facilitate international tourism, promote international trade especially export which will provide a big push to the economy and generate avenues of better employment.

Agriculture : Agriculture constitutes an important sector of the state economy as around 70% of the population of J&K derive greater part of their income directly or indirectly from this sector. Economy of J&K continues to be predominantly agrarian as 49% of the total working force with 42% as cultivators and 7% as agriculture labourers depend directly on agriculture for their livelihood. Apart from direct impact of agriculture growth on generation of rural employment and incomes, its significant secondary linkages with development of rural non-farm sectors are more crucial. Trade in agricultural outputs and inputs and services required by it and processing of its products open up additional and more significant avenues for labour absorption. Agriculture in the state besides has a significant contribution in the export of rare agriculture produce like saffron, honey and basmati and remains an important source of raw material demanded by many industries. Looking at the contribution of agriculture and allied sectors to the state economy it has been estimated that 27% of GSDP (2009-10) accrue from it. The individual share of agriculture has been estimated in the range of 8-9% for 2009-10 (advance estimates).

Irrigation : Irrigation is an essential input of agriculture and is practised in all parts of the world where rainfall does not provide enough ground moisture. In areas of irregular rainfall, irrigation is used during dry spells to ensure harvests and to increase crop yields. A major constraint to the development of agriculture in J&K is the fact that only 50% of the ultimate irrigation potential of the state has been harnessed. The ultimate irrigation potential in J&K has been assessed at 1358 thousand hectare, which includes 250 thousand hectare to be developed through major and medium irrigation and 1108 thousand hectare through minor irrigation.

The net area sown in the state during 2008-09 was 739 thousand hectare whereas the gross area sown (total area sown under different crops) was 1137 thousand hectare. The mode of irrigating the crops mainly used is the canals. About 92 per cent of the net area irrigated is irrigated through canals, while tanks, tube wells and other means are also used.

Horticulture : Jammu & Kashmir is well known for its horticulture produce both in India and abroad. The state offers good scope for cultivation of all types of horticulture crops covering a variety of temperate fruits like apple, pear, peach, plum, apricot, almonds, cherry and sub-tropical fruits like mango, guava, citrus, litchi etc. Apart from this, well-known spices like saffron and zeera are cultivated in some parts of the state. Horticulture is emerging as a fast growing sector in the state. Its importance is visualised by its contribution to the state's economy which is estimated to be 7-8%. Almost 45% economic returns in agriculture sector is accounted for by horticulture produce. Five lakh families comprising 30 lakh people are involved in horticulture trade.

The horticulture department has reported that an area of 3.07 lakh hectare was under horticulture during the year 2008-09 showing an increase of 3.91% over the previous year's area figures. In the area figures highest share of 43.22% is claimed by apple followed by 27.76% walnut.

The production of fruit for the year 2008-09 was reported to be 16.91 lakh tonne registering an increase of 3.36% over the fruit production figures for 2007-08. Out of total fruit production for 2008-09, 15.30 lakh tonne constituting 90.46% are fresh fruit and the remaining 9.54% are dry fruit. In the fruit production figures share of apple accounts for 78.80% and walnut with 8.82% share is the next major fruit.

Floriculture : Floriculture sector has been identified as the most focussed segment of horticulture. There is much more income to farmers from flower cultivation due to growing demand for flowers in domestic and foreign markets. To promote this segment floriculture nurseries have been developed where ornamental and medicinal plants are produced, besides the seed multiplication programmes of flower seeds. The Directorate of Floriculture produces more than 40 lakh seedlings of different kinds of flowers and ornamental plants not only for its own requirement but also sells the seedlings to the flower lovers on cash payment and earns revenue of Rs. 8 lakh on this account per annum.

One of the landmark achievements of floriculture department has been the establishment of Tulip Garden, first of its kind, at Siraj Bagh, Srinagar. Situated on the foothills of the mighty Zabarwan mountains the garden has the distinction of being Asia's largest Tulip garden. The garden remains in full bloom for one month (last week of March to last week of April). The garden witnesses highest inflow of tourists which includes film making companies for shooting song sequences in this beautiful garden. During 2007-08, Rs. 30 lakh accrued to the state through sale of entry tickets.

Forests : The state has 20230 sq km under forest area constituting about 19.95% of total geographical area of 101387 sq km on this side of actual line of control. Out of this, area under reserved forest is 2551 sq km which accounts for 12.61% of total forest area, protected forest forms 87.21% with an area of 17643 sq km and the remaining 36 sq km (0.18%) are unclassified. Looking to division-wise distribution of forest cover 8128 sq km are in Kashmir valley, 12066 sq km in Jammu division and 36 sq km in Ladakh region constituting 50.97%, 45.89% and 0.06% respectively of the geographical area. Per capita forest area accounts for 0.17 hectare as compared to 0.07 hectare at the national level.

Forest area reveals 90.68% under coniferous with 5.32% Deodar, 9.02% Chir, 9.73% Kail, 16.81% Fir and 49.80% others. 9.32% forest cover is claimed by non-coniferous non-commercial reserves.

Industry : In order to achieve a self sustaining economy with continued higher levels of investment, rapid rate of increase on income and employment there is no option but to go for industrialisation.

To usher in new era of industrialization comprehensive industrial policy came into being in 2004 to be lasted till 2015 under which planned incentives are being taken to raise J&K which is predominantly known as consumer State for most of its requirements to a level of self sufficiency and in the near future to a producer State. The incentives provided in the policy are ahead of other States of the country.

The incentives under the State Industrial Policy are available to the industrial units subject to fulfilment of the conditions of 90% local employment. During the year 2008-09 incentives of different kinds amounting to ₹ 74.05 crore have been provided to 215 Industrial units of the state.

Tourism : Jammu & Kashmir is an important Tourist destination and has been a place of attraction for tourist since centuries. The lush green forests, sweet springs, perennial rivers, picturesque alpine scenery and pleasant climate of Kashmir valley—the paradise on earth—has remained an internationally acclaimed tourist destination, whereas Jammu region—the land of temples—is attracting a large number of pilgrim tourists and the important destination has been a much sought-after destination especially for the foreign Tourists and is famous for adventure tourism.

Tourist inflow to J&K has continuously been increasing steadily from 69,12,000 in 2004 to 77,18,175 in 2008, which indicates an increase of 11.66%. The percentage increase in respect of the pilgrim visitors to Amarnath Ji has been to the extent of 24.51%, Mata Vaishno Devi Ji by 7.80%, domestic tourists by 58.79% and foreign tourist by 34.15% for the same period. During 2009, 5.73 lakh tourists visited J&K. In the perspective of overall tourist inflow to all the three regions of the state the percentage has increased during the years 1988 to 2008 by 172.19%. It may be in place to mention here that flow of foreign tourists has certainly diverted to Ladakh region because of turmoil which erupted in the State of Jammu & Kashmir in late 1980s and the prevailing security scenario.

Tourism generates employment, though it is difficult to measure or calculate the employment generation as these jobs are scattered across many sectors and can not be identified without a proper survey. The government is contemplating to conduct the survey to ascertain the employment generation under tourism sector. Further 65th round of NSS which envisages to cover the subject of Domestic Tourism has been taken up by the NSSO in all the states and UT's as well which would provide data for devising suitable policies for upgrading Tourism sector.

The state has sufficient potential to exploit for more and more revenue generation. The annual revenue earnings made under the public sector during last 4 years is about 102.63 crore. There has been substantial increase in the earnings during the last four years from Rs. 2072.26 lakh during 2004-05 to Rs. 2916.93 lakh during 2007-08. The percentage of earnings has been more by 40.76% during 2007-08 when put in comparison to the figures of 2004-05. However, the percentage increase has been to the tune of 10.48% for the year 2007-08 as compared to 2006-07.

The department of Tourism has initiated steps in many ways to attract more and more tourists by way of providing and creating various types of facilities and tourism infrastructure particularly in the field of adventure tourism.

Festivals : The fairs and festivals are a reflection of diverse cultural and social heritage of the state. All Hindu, Muslim or Sikh fairs and festivals are celebrated with full vigour and enthusiasm regardless of the religion. Like all parts of India, Jammu & Kashmir also celebrates Diwali (Hindu festival, famous for fireworks, crackers and sweets), Holi (Hindu festival, famous for colours and sweets), Eid (Besides other religious festivals Muslims observe Eid-ul-Fitre and Eid-ul-Azha, Milad-un-Nabi (SAW) and Muharam).

Makar Sankranti (known as Pongal in south India and Lohri in Punjab)-This is celebrated on January 13 of every year, to welcome the spring. People bathe in the holy rivers and perform *hawans* and *Yagnas* (Hindu workshop activities) in the temples. In the rural areas, boys visit newly-wedded couples to ask gifts. You will also be able to see the traditional "Chajja", a dance which is performed by young boys to the drum-beats, decorated colored paper and flowers.

Baisakhi (celebrated on April 13 or 14)-Considered an auspicious occasion for marriages, the festival of Baisakhi is basically the harvest festival of northern India. The name of the festival is derived from the first month of the Hindu/Vikram calendar i.e. "Vaishakh"

GOVERNMENT

<i>Governor</i>	: Shri N.N. Vohra	<i>Chief Secretary</i>	: Shri S. S. Kapoor
<i>Chief Minister</i>	: Shri Omar Abdullah	<i>Jurisdiction of High Court</i>	: Jammu, Kashmir & Ladakh

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Geographical Area	Population * (2001 census)	No. of Tehsils	No of Blocks
1.	Anantnag	2,917	7.83	6	7
2.	Badgam	1,371	6.29	6	8
3.	Bandipora	398	3.16	3	5
4.	Baramulla	4,190	8.53	7	12
5.	Doda	4,500	2.86	4	8
6.	Ganderbai	1,945	2.12	4	4
7.	Jammu	3,097	13.57	4	8
8.	Kargil	14,036	1.19	3	9
9.	Kathua	2,440	5.11	5	8
10.	Kishtwar	7,737	1.91	4	8
11.	Kulgam	1,067	3.89	3	5
12.	Kupwara	2,379	6.50	3	11
13.	Leh	45,100	1.17	3	9
14.	Poonch	1,674	3.73	4	6
15.	Pulwama	1,090	4.41	4	4+(Part of block Keller)
16.	Rajouri	2,630	4.83	7	8
17.	Ramban	1138	0.22	2	4
18.	Reasi	1517	2.48	2	4
19.	Samba	910	2.70	1	4
20.	Shopian	612.87	2.11	1	1+(Part of block Keller)
21.	Srinagar	294	9.89	2	1
22.	Udhampur	2380	4.96	4	7
Total		101387	101.43	82	142

Note : The boundries of newly carved out districts and the districts from which they have been carved have not been finalised yet by the concerned agencies. So the discetpancies could exist in the geographical area figured above.

* Population in lakh.

JHARKHAND

<i>Area</i>	: 79,714 sq km	<i>Population</i>	: 2,69,09,428
<i>Capital</i>	: Ranchi	<i>Principal Language</i>	: Hindi

HISTORY AND GEOGRAPHY

Jharkhand which came into being on 15 November 2000 as the 28th State of the Union is the homeland of the tribals who had dreamed of a separate state for a long time. According to legend, Raja Jai Singh Deo of Orissa had declared himself the ruler of Jharkhand in the 13th century. It largely comprises forest tracks of Chhotanagpur plateau and Santhal Pargana and has distinct cultural traditions. In post-Independence era, the Jharkhand Mukti Morcha started a regular agitation which impelled the government to establish the Jharkhand Area Autonomous Council in 1995 and finally a full-fledged State.

Jharkhand is bounded by West Bengal in the east, Uttar Pradesh and Chhattisgarh in the west, Bihar in the north and Orissa in the south.

AGRICULTURE

The State has an area of 79,714 sq km of which 18,423 sq km is forest land. Agriculture and allied activities are the major source of Jharkhand's economy. The total cultivable land is only 38 lakh hectare.

IRRIGATION AND POWER

Damodar, Maurakshi, Barakar, North Koyel, South Koyel, Sankh, Subarnarekha, Kharkai, and Ajay are major water resources in the State. The net sown area is 1.8 million hectare of which 8 per cent is irrigated.

The installed capacity of power in Jharkhand is 2,590 MW. This includes 420 MW (Tenughat Thermal Power Station), 840 MW (Patratu Thermal Power Station), 130 MW (Sikkidiri Hydel Project) and 1,200 MW (Damodar Valley Corporation Thermal/Hydel Project). The prospect of capacity addition in both the thermal and hydel sectors of various power stations is 4,736 MW. This includes 686 MW hydel generation.

INDUSTRY AND MINERALS

Some of Jharkhand's major industries are: Bokaro Steel Plant in the public sector, Tata Iron and Steel Company (TISCO) in Jamshedpur in the private sector. Other important industries are Tata Engineering and Locomotive Company (TELCO), Timken India Limited (Jamshedpur), Bharat Coking Coal Limited (Dhanbad), Khilari Cement Factory (Palamu), Indian Aluminum (Muri), ACC cement (Chaibasa), Central Coalfields Limited (Ranchi), Usha Martin, Usha Beltron, Uranium Corporation (I) Limited (Jadugora), Hindustan Copper Limited (Mussabani), Tin Plate Company of India Limited (Jamshedpur), Indian Explosive Limited (Gomia), Hindalco Bauxite (Lohardaga), etc.

The State is rich in mineral resources. The important available minerals are coal, iron ore, lime stone, copper ore, bauxite, pyrite, china clay, kyanite, fine clay, dolomite, graphite, bentonite, soap stone, quartz sand and silica sand. The nascent state of Jharkhand has the enormous potential for exploitation of coal, mica and other minerals particularly in Singhbhum, Bokaro, Hazaribagh, Ranchi, Koderma and Dhanbad.

TRANSPORT

Roads : The total length of roads in the State is 4,311 km. This includes 1,500 km national highways and 2,711 km state highways.

Railways : The state has a well-developed railway system. Ranchi, Bokaro, Dhanbad, Jamshedpur are some of the major railway stations.

Aviation : Ranchi is connected with Delhi, Patna and Mumbai. Jamshedpur, Bokaro, Giridih, Deoghar, Hazaribagh, Daltonganj and Noamundi have air strips.

TOURIST CENTRES

There are many scenic attractions in the state, namely, Ichagarh Bird Sanctuary, Udhava Bird Sanctuary-Sahibganj (Pathara Lake), Chachro Crocodile Breeding Centre-Koderma (Tilaya Dam), Chandrapura Bird Sanctuary, Jawaharlal Nehru Zoological Garden (Bokaro), Tenughat Bird Sanctuary, Dalma Wild Life Sanctuary (Jamshedpur), Tata Steel Zoological Park (Jamshedpur), Palkote Wild Life Sanctuary (Gumla), Bhagwan Birsa Zoological Gardens (Ranchi), Birsa Deer Sanctuary (Kalmati Ranchi), Betla National Park (Palamau), Ranchi Aquarium (Ranchi), Hazaribagh National Park, Tatoloi hot water stream (Dumka) and Saranda Forest.

Apart from the above, Jharkhand has some famous temples like, Jharkhand Dham, Lagnta Baba Temple/Majar, Bindhvashini Temple, Masanjore Dam, etc.

GOVERNMENT

<i>Governor</i>	: Shri M.O.H. Farook	<i>Chief Secretary</i>	: Dr. Ashok Kumar
<i>Chief Minister</i>	: Shri Arjun Munda	<i>Jurisdiction of High Court</i>	: Jharkhand

Names of the districts : Ranchi, Gumla, Lohardaga, Palamau, Garhwa, Dhanbad, Bokaro, Hazaribagh, Chatra, Giridih, Kodarma, East Singhbhum, West Singhbhum, Dumka, Deoghar, Godda, Pakur and Sahebganj.

KARNATAKA

<i>Area</i>	: 1,91,791 sq kms	<i>Population</i>	: 5,28,50,562
<i>Capital</i>	: Bangaluru	<i>Principal Language</i>	: Kannada

HISTORY AND GEOGRAPHY

Karnataka has a recorded history of more than 2,000 years. Apart from its subjection to the rule of Nandas, Mauryas and the Satavahanas, Karnataka came to have indigenous dynasties like the Kadambas of Banavasi and the Gangas from the middle of the 4th century AD. The world renowned Gomateshwara monolith at Shravanabelagola was installed by a Ganga minister Chavundaraya. The colossal rock cut image of Sri Gometeshwara in the most magnificent among all Jaina works of art. Numerous visitors arrive at Shravanbelagola to gaze at this and other monuments. The Chalukyas of Badami (500-735 AD) reigned over a wider area, from the Narmada to the Kaveri from the days of Pulikeshi II (609-642 AD) who even defeated the mighty Harshavardhana of Kanauj. This dynasty created fine, everlasting and the most beautiful monuments at Badami, Aihole and Pattadakal, both structural and rock-cut. Aihole has been one of the cradles of temple architecture in the country. The Rashtrakutas (753-973 AD) of Malkhed who succeeded them heaped tributes on

the rulers of Kanauj successively in the so-called 'Age of Imperial Kanauj'. Kannada literature developed during this period. Outstanding Jain scholars of India lived in their court. The Chalukyas of Kalyana (973 to 1189 AD) and their feudatories, the Hoysalas of Halebidu built exquisite temples, encouraged literature and various fine arts. Noted jurist Vijnaneshwara (work: *Mitakshara*) lived at Kalyana. The great religious leader Basaveshwara was a minister at Kalyana. Vijayanagar empire (1336-1646) patronised and fostered indigenous traditions and encouraged arts, religion and literature in Sanskrit, Kannada, Telugu and Tamil. Overseas trade flourished. The Bahamani Sultans (Capital: Gulbarga, later Bidar) and the Bijapur Adilshahis raised fine Indo-Saracenic buildings and encouraged Urdu and Persian literature. Advent of the Portuguese resulted in the introduction of new crops (Tobacco, Maize, Chillies, Groundnut, potato, etc.). After the fall of the Peshwa (1818) and Tipu (1799), Karnataka came under British rule. Christian missionaries introduced English education and printing during the 19th century. Revolution in transport, communication and industries was ushered in. The urban middle-class emerged. Mysore dynasty initiated and helped industrialisation and cultural growth.

Freedom Movement was followed by the movement for the unification of Karnataka. After Independence, the Mysore State was created in 1953, wherein all the Kannada dominant areas under different dispensations were unified and the enlarged Mysore state carved in 1956 and was renamed Karnataka in 1973.

Karnataka State is situated between 11°31' and 18°14' north latitudes and 74°12' and 78°10'

FORESTRY AND WILDLIFE

The Forest department manages about 20.15% of the geographical area of the State. Forests have been classified as reserved forests, protected forests, unclassified forests, Villages forests, and private forests. There are 5 National Parks and 23 Wildlife sanctuaries. To overcome shortage of fuel wood, fodder and timber, degraded forests and waste lands are being developed. Emphasis is also being laid on the conservation, protection and development of the fragile eco-system of the Western Ghats. Several Wildlife protection schemes such as Project Tiger and Project Elephant are being implemented with the Central assistance. The concept of Joint Forest Planning and Management applied to the 2 externally aided projects viz., Western Ghats Forestry & Environment Project (DFID) and Forestry and Environment Project for Eastern Plains (JBIS) has resulted in village forest planning and management through establishment of Village Forest Committees.

AGRICULTURE

The State has 66% Rural population and 55.60 per cent of workers are agricultural labourers. The State has 60% (114 lakh ha) cultivable land and 72% of the cultivable area is rainfed; only 28% is under irrigation. The state has 10 Agro climatic Zones. The Red soil constitutes major soil type, followed by Black soil. The net sown area of the state constituted 51.7% of the total land. During 2007-08, food grain production was anticipated to be 117.35 lakh metric ton against the target of 119.70 lakh metric ton.

DAIRY

Karnataka is one of the major milk producers and the Karnataka Milk Federation has 21 dairy processing plants with a capacity of 26.45 lakh litres a day and 42 chilling centres having 14.60 lakh litres of chilling capacity.

HORTICULTURE

Horticulture crops are grown in an area of 16.80 lakhs hectare and the produces amount to 101 lakh ton. The Union Government has earmarked ₹ 171.29 crore for Karnataka under National Horticulture Mission.

MAJOR AND MEDIUM IRRIGATION

28% of the cultivable land in the state is under irrigation. During 2006-07, 23.21 hectares of land was covered by major and medium irrigation and 9.93 lakh hectare was covered by minor irrigation, constituting a total of 33.14 lakh hectares of irrigated area.

POWER GENERATION

Karnataka was the pioneer in establishing hydroelectric projects in the country. Today, Karnataka has 7222.91 Power Generation Installed capacity and 31229 Million Units of Electricity was generated in 2007-08.

BIOTECHNOLOGY

Karnataka State and Bangaluru city in particular have become the largest bio-clusters in the country. The value of Biotech exports was 215 Million US\$.

TRANSPORT

Road : Total road length of Karnataka has increased from 83,749 km in 1971 to 2,15,849 km in 2007. The Karnataka Highways Improvement Project with World Bank assistance will improve 2375 km of road, i.e. upgradation of 900 km and rehabilitation of 1475 km comprising state highways and major district roads at an estimated cost of ₹ 2402.51 crore. Assistance is being provided under the Rural Infrastructure Development Fund for the construction and improvement of roads and bridges in the state.

Ports : The Karnataka State has a maritime coastline of 155 nautical mile (300 kilometres) and has only one Major Port at Mangalore, i.e. New Mangalore Port and studded with 10 minor ports of the State-Karwar, Belekari, Tadri, Honnavar, Bhatkala, Kundapur, Hangarkatta, Malpe, Padubidri and Old Manglore. Out of 10 ports Karwar is the only all weather port while the other nine are the riverine anchorage lighterage ports.

Aviation : The Civil Aviation Sector has seen tremendous growth with international air passenger traffic growth of 50% and domestic air passenger growth at 44%.

Bangaluru International Airports : Country's First Green Field International Airport has been set up at Devanahalli near Bangaluru at a cost of Rs. 2000 crore as a passenger and Cargo hub under Public Private Partnership and has started functioning from 28 May 2008. This airport has put Banglore City on global destination and offer travelers' facilities comparable with best intenational standards.

The Government has also planned to develop airports at Shimoga and Gulbarga on PPP basis.

TOURISM

Karnataka "One State Many Worlds" is becoming a Hub of tourist attraction of south India. The IT & BT Centre Bangaluru has received more tourists in the recent past. The State is known for its Heritage monuments and Eco-Tourism destinations.

The Golden Chariot named after the famous Stone Chariot in Hampi, a world heritage site, in southern India will travel through timeless historical heritage sites, resplendent palaces, wildlife and golden beaches.

Its 7 Nights/8 Days colourful journey begins every Monday from Bangaluru and traverses through Mysore, visiting Srirangapatna, Mysore Palace, The Nagarhole National Park (Kabini) and continuing to the historical sites of Shravanabelagola, Belur - the 11th century cradle of Hoysala architecture and a world heritage site, Halebidu, Hampi and thereafter entering into the triangular heritage sites of Badami, Pattadakal, Aihole and finally the Golden Beaches of Goa before ending in Bangalore.

Karnataka has a blend of heritage places, thick dense forests and holy places. The new concept of 'Homestay' has added a new dimension to Tourism in the State. Hampi and Pattadakal have been declared as world heritage sites.

GOVERNMENT

<i>Governor</i>	: Shri Hans Raj Bhardwaj	<i>Chief Secretary</i>	: Shri S.V. Ranganath
<i>Chief Minister</i>	: Dr. B. S. Yeddyurappa	<i>Jurisdiction of High Court</i>	: Karnataka State

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area (sq km)	Population	Headquarters
1.	Bagalkot	6,575	16,51,892	Bagalkot
2.	Bangaluru	2,190	65,37,124	Bangalore
3.	Bangaluru Rural	5,815	18,81,514	Bangalore Rural
4.	Belgaum	13,415	42,14,505	Belgaum
5.	Bellary	8,450	20,27,140	Bellary
6.	Bidar	5,448	15,02,373	Bidar
7.	Bijapur	10,494	18,06,918	Bijapur
8.	Chamarajanagar	5,101	9,65,462	Chamarajanagar
9.	Chikmagalur	7,201	11,40,905	Chikmagalur
10.	Chitradurga	8,440	15,17,896	Chitradurga
11.	Dakshina Kannada	4,560	18,97,730	Mangalore
12.	Davanagere	5,924	17,90,952	Davanagere
13.	Dharwad	4,260	16,04,253	Dharwad
14.	Gadag	4,656	9,71,835	Gadag
15.	Gulbarga	16,224	31,30,922	Gulbarga
16.	Hassan	6,814	17,21,669	Hassan
17.	Haveri	4,823	14,39,116	Haveri
18.	Kodagu	4,102	5,48,561	Madikere

19.	Kolar	8,223	25,36,069	Kolar
20.	Koppal	7,189	11,96,089	Koppal
21.	Mandya	4,961	17,63,705	Mandya
22.	Mysore	6,854	26,41,027	Mysore
23.	Raichur	6,827	16,69,762	Raichur
24.	Shimoga	8,477	16,42,545	Shimoga
25.	Tumkur	10,597	25,84,711	Tumkur
26.	Udupi	3,880	11,12,243	Udupi
27.	Uttara Kannada	10,291	13,53,644	Karwar
28.	Ramanagar	-	-	-
29.	Chikkaballapur	-	-	-

KERALA

Area : 38,863 sq kms

Population : 3,18,41,374

Capital : Thiruvananthapuram

Principal Language : Malayalam

HISTORY AND GEOGRAPHY

Kerala is in the extreme south-west of the Indian subcontinent. When independent India amalgamated small states together Travancore and Cochin states were integrated to form Travancore-Cochin State on 1st July 1949. However, Malabar remained under the Madras province. Under the State's Re-organisation Act 1956, Travancore-Cochin state and Malabar were united to form Kerala state on 1 November 1956.

In between the high Western Ghats on the east and the Arabian sea on the west, the width of the state varies from 35 km to 120 km. According to the geographical features, the state can be divided into hills, valleys, midland plains and coastal belt. 44 rivers (41 west flowing and 3 east flowing) cut across Kerala with their innumerable tributaries and branches. The backwaters form an attractive and economically valuable feature of Kerala.

AGRICULTURE

Out of a gross cropped area of 27.02 lakh ha in 2008-09, food crops comprising rice, pulses, minor millets and tapioca occupy only 12.05 per cent. Kerala's agricultural economy is undergoing structural transformation from the mid seventies by switching over a large proportion of its traditional crop area which was devoted to subsistence crops like rice and tapioca to more remunerative crops like coconut and rubber.

With overage of 7.81 lakh ha, coconut occupies 36 per cent of the net cropped area. The production improved by 2.17 per cent in 2008-09 over the previous year in the State.

Kerala has a substantial share in the four plantation crops of rubber, tea, coffee and cardamom. The four crops together occupy 6.80 lakh ha, accounting for 32.15 per cent of the net cropped area in the state and 43 per cent of the area under these crops in the country. Kerala's share in the national production of rubber is 91 per cent, cardamom 75 per cent, coffee 22 per cent during the year 2008-09. Kerala's share in the production of tea is 5 per cent during 2008-09.

INDUSTRY

The industrial sector in Kerala consists mainly of traditional industries and a few modern industries. Besides we now have new emerging areas like information Technology (IT) and IT Enabled Services (ITES) and bio-technology. Since the bulk of industrial workers in the state are employed in traditional industries like Coir, Cashew, Handlooms and Beedi and Cigar making, top priority has to be given to revive, modernise and strengthen them to face the increasingly competitive market conditions. At the same time considering the large number of educated unemployed, the development of modern industries has also to be encouraged. There is also a need to promote skill development to equip the unemployed to get gainful employment. Though private capital and entrepreneurs including Non-Resident Keralites (NRKs) are willing to start new industries in the state they are confronting certain constraints like non-availability of land for industrial purpose, high land prices, lack of adequate infrastructure like roads and power, and bureaucratic delays in getting government clearance on projects. Besides objections from environmental activists and misgivings about some uncertainty in industrial relations add to the woes of private investors in Kerala. Efforts are being made to remove these constraints as fast as possible to make Kerala an investor-friendly state. During the year under review most of the loss making state PSUs have achieved a turn around due to implementation of timely revival packages, one time settlement of liabilities, infusion of professional management and a fairly high degree of autonomy in decision making at the corporate level.

Kerala has significant comparative advantage with regard to developing IT/ITES and biotechnology sector activities. The state has high literacy, educated and skilled manpower, cheapness of land and rich bio-diversity and amiable climate.

INFORMATION TECHNOLOGY

Information Technology (IT) today is the world's fastest growing segment and the use of IT is so widely spread throughout the world economy that no single country can avoid investing in this, if it wants to improve the standard of living of the citizens. The flow of information has changed our life style and at present information is the backbone of every system. Nowadays information is also vital for running our day-to-day activities smoothly. IT has made our lives more simple and people can work on the internet without really having to go outside to their workplaces. The role of IT is significant in underdeveloped countries like India and it is all the more important in a State like Kerala in the context of backward industrial sector along with high educated unemployment and highest number of emigration to foreign countries. Thus in Kerala IT can generate massive employment opportunities and can also earn valuable foreign exchange by way of software exports. It can also reduce the cost of production and increase revenue, which can be used for reinvestment by firms. Productivity can also be increased with the help of Information Technology as Internet can change the market by search for efficient markets.

IRRIGATION

The surface irrigation constitutes major chunk of irrigation infrastructure in the state. There are 18 dams in the state intended for irrigation. Out of this, 13 have storages and 5 are barrages.

Irrigation development in Kerala is mainly centred on the development of surface water resources, mainly on the development of major and medium irrigation projects.

The expenditure on Major and Medium irrigation sub-sector was the highest (97.33%) followed by Command area development (56.73%). Minor Irrigation (48.39%) and Flood control and Coastal zone management (41.29%).

DRINKING WATER SUPPLY

Water supply, considering its importance in deciding quality of life of people, always has been an area of priority in Kerala's development plans. The importance attached to the sector has increased more in recent years. Introduction of externally aided programmes such as JBIC, Jalanidhi etc. and the Tsunami Rehabilitation Programme have significantly enhanced the resources flowing into the sector.

POWER

Power Sector plays a vital role in all developmental activities in Kerala. The need for power is increasing and the production of power should also increase accordingly. Moonsoon is essential to sustain the hydropower base in the State. Kerala received 18% less than the average inflow into KSEB reservoirs; the KSEB could manage the power supply situation with higher quantum of cheaper hydel power. As the power situation improved, all the restrictions were withdrawn on 1 May 2009. Kerala is one among the very few states in the country where there was no load shedding and power cut during 2008-09. KSEB has been responsible for the generation, transmission and supply of electricity in the State of Kerala, with particular emphasis to provide electricity at affordable cost to the rural population and for agricultural purposes. The Board has been passing through a transitional phase of reforms in the electricity sector. The Electricity Act 2003 envisages separate organizations for Transmission and Distribution etc.

Kerala is planning a capacity addition of 610.50 MW (1653.86 MW) through hydel and non-conventional sources during the eleventh Plan.

TRANSPORT

The PWD (Roads) wing deals with the maintenance of National Highway within the State and construction and maintenance works related to State Highways and Major District Roads. The department follows a strategy to improve, including upgrading the existing roads in a prioritized manner depending upon the condition and infrastructure needs for economic growth. The department intends to avail budgetary support, institutional and private finance in improving the road section.

There are 9 National Highways passing through the State of Kerala with a total length of 1542 km. They are :

National Highways in Kerala

Sl. No.	Name	Length (km)
1.	NH 17 – Thalappady – Edappally	416
2.	NH 47 – Walayar – Kaliyikkavila	421

States and Union Territories	1105
3. NH 47 A – Wellington Island to Kochi – Bypass	6
4. NH-47 C - from Vallarpadam to Kalamassery in Emakulam	17
4. NH 49 – Bodimettu – Muvatupuzha – Kochi	167
5. NH 208 – Kollam – Aryankavu – Muvattupuzha	81
6. NH 212 – Kozhikode – Kallegel	119
7. NH 213 – Kozhikode – Palakkad	125
8. NH 220 – Kollam – Kottayam – Kumily – Theni	190

The National Highway wing of PWD is responsible for the execution of improvement of works on National Highways utilizing the Budgetary Resources of Government of India. The main activities done by this wing is construction, maintenance and repairs of the roads declared as NHs. National Highway Authority of India is directly executing the four-laning work of NH-17 and NH-47 under NHDP and the land acquisition for the Same is in progress.

Port Sector : Along its coastline of 585 km Kerala has one major port of Cochin and 17 non major ports. The non-major ports are under the administration of Government of Kerala. Government of Kerala intends to provide a boost to coastal shipping with the development of ports.

Cochin Port is the only major port in Kerala. It spreads over 827 hectare. It has a water frontage of 7.5 km. The port has connectivity to hinterland through NH 47, NH 17 and NH 49. Rail links to the Konkan and Southern Railway also give key rail access to its hinterland. An inland waterway connecting Kollam and Kottappuram on either side is being developed by the Inland Waterways Authority of India.

Railways : Railways are essentially the cause for industrial upsurge in the nation and it still remained the largest employment provider for the huge population of the country. The total length of track used by Indian Railways is about 111599 km. The State total Railway route has a length of 1148 Km and covers 13 Railway routes. The Railway divisions at Thiruvananthapuram, Palakkad and Madurai jointly carry out Transport Operations in Kerala.

Air Transport : Kerala has three airports at Thiruvananthapuram, Kochi and Kozhicode handling both International and domestic flights. Thiruvananthapuram and Kozhicode airports are owned by Government of India and Kochi airport is owned by Kochin International Air Port Ltd (CIAL), a company set up by Government of Kerala with public private participation.

FESTIVALS

Kerala is the home of many colourful festivals. Onam is the most typical of Kerala festivals which coincides with the harvest season. It is now celebrated on astronomical New Year Day. Navarathri is celebrated as Saraswathi Pooja in Kerala. Maha Shivarathri is celebrated on the banks of Periyar river as a spectacular festival which is compared to Kumbhamela. The 41-day festival, which coincides with Makaravilakku in Sabarimala Ayyappan Temple, attracts lakhs of people from India and abroad. The Vallamkali or boat race is typical of Kerala. All the boat festivals have a religious origin except Nehru Trophy Boat race conducted in the Punnamada

Lake. Thrissur celebrates Pooram festival in April - May every year with an impressive procession of caparisoned elephants and display of unparalleled pyrotechnics. Main Christian festivals are Christmas and Easter. Maramon Convention held every year on the Pumba riverbed is the biggest gathering of Christians in Asia. The Muslims celebrate Milade Shareef, Ramzan fasting, Id-ul-Fitr and Bakrid.

TOURISM

Kerala the lush green strip of land on the south-west coast of India, lies snuggled between the vast Arabian Sea on its west and the Western Ghats in the east. This Tropical paradise with its spectacular and diverse natural attractions has long attracted holiday makers from across the world. A 600 km long coastline stretching across 11 out of its fourteen districts, emerald backwaters, exotic wild life, beautiful waterfalls, historic monuments and misty hill stations have made it one of the most acclaimed States in the world.

The centuries-old holistic medicine of Ayurveda, the unique boat races that is the largest team sport in the world, the ride through the winding waterways in a cosy houseboat or the colourful and exotic festivals Kerala offers a multitude of experience to the tourists. The land's natural beauty is further enhanced by a rich tradition of music and arts dating back over a thousand years, making Kerala truly God's Own Country.

EDUCATION

Kerala has received laurels from policy makers and developmental economists all over the globe for the investments it has made in the sectors of education and health over the years, which helped the state in becoming an enlightened state with a very talented human resource base. Many experts have cited the remarkable social sector development of the state by pointing out that Kerala's accomplishment shows that the well being of the people can be improved, and social, political, and cultural conditions transformed, even at low levels of income, if there is appropriate public action. In Kerala, the agitations of mass organizations and mass movements against social, political and economic oppression and the policy actions of governments have been the most important constituents of public action.

HEALTH

Kerala's remarkable achievements in health care were to a large extent based on its vast network of public health institutions, which enabled her to earn the fame of Kerala Model of Health worth emulating even by advanced countries. The hall mark of this model was the low cost of health care, universal accessibility and availability to the poor sections of the society. This health model was made possible by many socio-economic conditions, important among which was the high female literacy rate in the state. Apart from these, the extensive network of medical care institutions in Modern medicine, homeopathy and ISM has also made this possible.

GOVERNMENT

<i>Governor</i>	: Shri R.S. Gavai	<i>Chief Secretary</i>	: Dr. P. Prabhakaran
<i>Chief Minister</i>	: Shri V.S. Achuthanandan	<i>Jurisdiction of High Court</i>	: Kerala and Lakshadweep

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population (2001 Census)	Headquarters
Thiruvananthapuram	2,192	32,34,356	Thiruvananthapuram
Kollam	2,491	25,85,208	Kollam
Pathanamthitta	2,637	12,34,016	Pathanamthitta
Alappuzha	1,414	21,09,160	Alappuzha
Kottayam	2,208	19,53,646	Kottayam
Idukki	4,358	11,29,221	Painavu
Ernakulam	3,068	31,05,798	Ernakulam
Thrissur	3,032	29,74,232	Thrissur
Palakkad	4,480	26,17,482	Palakkad
Malappuram	3,550	36,25,471	Malappuram
Kozhikode	2,344	28,79,131	Kozhikode
Wayanad	2,131	7,80,619	Kalpetta
Kannur	2,966	24,08,956	Kannur
Kasaragode	1,992	12,04,078	Kasaragode

MEGHALAYA

<i>Area</i> : 22,429 sq km	<i>Population</i> : 23,18,822 (2001 Census)
<i>Capital</i> : Shillong	<i>Principal Languages</i> : Khasi, Garo and English

HISTORY AND GEOGRAPHY

Meghalaya was created as an autonomous State within the State of Assam on 2 April 1970. The full-fledged State of Meghalaya came into existence on 21 January 1972. It is bounded on the north and east by Assam and on the south and west by Bangladesh. Meghalaya literally means 'the Abode of Clouds' and is essentially a hilly state. It is predominately inhabited by the Khasis, the Jaintias and the Garos tribe communities. The Khasi Hills and Jaintia Hills which form the central and eastern part of Meghalaya form an imposing plateau with rolling grassland, hills and river valleys. The southern face of the plateau is marked by deep gorges and abrupt slopes, at the foot of which, a narrow strip of plain land runs along the international border with Bangladesh.

AGRICULTURE

Meghalaya is basically an agricultural State in which about 80 per cent of its population depends primarily on agriculture for their livelihood. The State has a

vast potential for development of horticulture due to the agro-climatic variations, which offer much scope for cultivation of temperate, sub-tropical and tropical fruits and vegetables.

Besides major food crops of rice and maize, Meghalaya is renowned for its orange (Khasi Mandarin), pineapples, bananas, jackfruit, temperate fruits like plum, pear and peach, etc. Cash crops, popularly and traditionally cultivated include potato, turmeric, ginger, black pepper, arecanut, betelvine, tapioca, short staple cotton, jute and mesta, mustard and rapeseed. Special emphasis is presently being laid on non-traditional crops like oilseeds (groundnut, soyabean and sunflower), cashewnut, strawberry, tea and coffee, mushroom, medicinal plants, orchids and commercial flowers.

INDUSTRIES

The Meghalaya Industrial Development Corporation Limited, as the Industrial and Financial Institution of the State, has been rendering financial assistance to the local entrepreneurs. District Industries Centres have been working in the field for the promotion and development of small-scale, village, tiny and cottage industries. A number of industrial projects have been set up for the manufacture of iron and steel materials, cement and other industrial products.

FESTIVALS

A five-day-long religious festival of the Khasis 'Ka Pamblang Nongkrem' popularly known as 'Nongkrem dance' is annually held at Smit village, 11 km from Shillong. 'Shad Sukmynsiem', another important festival of the Khasis is held at Shillong during the second week of April. 'Behdeinkhlam', the most important and colourful festival of the Jaintias is celebrated annually at Jowai in Jaintia Hills in July. 'Wangala festival' is observed for a week to honour Saljong (Sungod) of the Garos during October – November.

TOURIST CENTRES

Meghalaya is dotted with a number of lovely tourist spots where nature unveils herself in all her glory. Shillong, the capital city, has a number of beautiful spots. A few of them are Ward's Lake, Lady Hydari Park, Polo Ground, Mini Zoo, Elephant Falls, Shillong Peak overlooking the city and the Golf Course which is one of the best in the country.

TRANSPORT

Roads: Six national highways pass through Meghalaya. The State has 7,977.98 km of both surfaced and unsurfaced roads.

Aviation: The only airport in the State at Umroi, is 35 km from Shillong.

GOVERNMENT

<i>Governor</i>	: Shri Ranjit Shekhar Mooshahary	<i>Chief Secretary</i>	: Shri W.M.S. Pariat
<i>Chief Minister</i>	: Dr. Mukul Sangma	<i>Jurisdiction of High Court</i>	: Falls under the jurisdiction of Guwahati High Court. There is a High Court Bench at Shillong.

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

District	Area (sq km)	Population	Headquarters
East Khasi Hills	2,820	6,60,923	Shillong
West Khasi Hills	5,247	2,96,049	Nongstoin
Ri-Bhoi	2,376	1,92,790	Nongpoh
Jaintia Hills	3,819	2,99,108	Jowai
East Garo Hills	2,603	2,50,582	Williamnagar
West Garo Hills	3,715	5,18,390	Tura
South Garo Hills	1,849	1,00,980	Baghmara

MADHYA PRADESH

<i>Area</i>	: 3,08,000 sq kms	<i>Population</i>	: 6,03,85,118
<i>Capital</i>	: Bhopal	<i>Principal Language</i>	: Hindi

HISTORY AND GEOGRAPHY

Madhya Pradesh is the second largest Indian State in size with an area of 3,08,000 sq.km. Geographically it occupies a pivotal position in the country.

King Ashoka, first among all, ruled over Ujjain. A sizeable portion of Central India was part of the Gupta empire (300-500 A.D.). The Muslims came into Central India in the beginning of 11th century. First of all, Mahamood of Ghazni came over here and then Mohammad Gouri, who incorporated some parts of Central India into his ruling territory of Delhi. Central India was also part of the Mughal empire. During the period between the beginning of the influence of Marathas and the death of Madhoji Scindia in 1794, Marathas were on the ascendent in Central India but later on the small states started coming into existence. These small states became the cause of perpetuation of British power in the country.

Queen Ahilyabai Holkar of Indore, the Gond Maharani Kamalapati and Queen Durgawati, etc. were women rulers whose names have left an indelible imprint on Indian history for their outstanding rule. Madhya Pradesh came into being on 1 November 1956. It was reorganised on 1 November 2000 to create a new Chhattisgarh state. The successive state, now, is bounded in north by Uttar Pradesh, east by Chhattisgarh, south by Maharashtra and west by Gujarat and Rajasthan.

AGRICULTURE

Agriculture is the mainstay of State's economy as 74.73 per cent of the people are rural. As much as 49 per cent of the land area is cultivable.

The net sown area during 2009 was estimated at about 14,790,000 ha. The foodgrain production was 128.96 lakh metric tonnes. The productivity of major crops like wheat, rice, pulses has also been good.

INDUSTRY AND MINERALS

Madhya Pradesh has entered the era of high-tech industries such as electronics, telecommunications, automobiles, Information Technology, etc. The state produces optical fibre for telecommunication needs. A large number of automobile industries

have been established at Pithampur near Indore. Prominent industries in the public sector in the state are Bharat Heavy Electricals Ltd. at Bhopal, Security paper mill at Hoshangabad, Bank Note Press at Dewas, newsprint factory at Nepanagar and alkaloid factory at Neemuch.

An air cargo complex is coming up at Pithampur. The Government of India has set up a Special Economic Zone at Indore. Foreign Direct Investment is being promoted by implementing the comprehensive Economic Development Policy.

The state government has announced an Industries Promotion Policy offering attractive incentives for investment in the state. The docks have been cleared for the long pending Rs. 10,378 crore Oman Bina Refinery Project at Bina in Sagar district. The Government of India has also sanctioned a National Auto Testing and Research and Development Infrastructure Project to be set up at Pithampur in Dhar district.

Madhya Pradesh is a mineral rich state. The state produced minerals worth Rs. 9840.19 crore in the year 2008-09. It produces 21 types of minerals. The output of minerals in 2008-09 was dolomite 202 thousand metric tonnes, diamond 592 thousand carats, limestone 27,594 thousand metric tonnes, bauxite 875 thousand metric tonnes and copper ore 1609 thousand metric tonnes. The coal production was 71373 thousand metric tonnes. The State is famous for its traditional handicrafts and handloom cloth manufactured in Chanderi and Maheshwar.

IRRIGATION AND POWER

The net area under irrigation was 6,506 thousand hectare in the year 2009. A Rs. 1919 crore Water Sector Restructuring Project is being implemented to restore irrigation facility in five lakh hectare by renovating the existing irrigation system in 30 districts.

Madhya Pradesh is rich in low-grade coal suitable for power generation and also has immense potential of hydro-energy. Total installed power generation capacity in year 2009 was 9878.25 MW. There are eight hydro-electric power stations with 922.95 MW installed capacity.

DEVELOPMENT INITIATIVES

National Rural Employment Guarantee Scheme has been implemented in all 50 districts. M.P. has topped in the country in its implementation. National Horticulture Mission has been launched to boost horticulture production and productivity in the state.

TRANSPORT

Roads : The total length of roads in the state is 91968 km. The length of national highway in the state is 4280 km while State highway extends to 10249 km. The state government has taken up the construction and upgradation of roads in a big way and about 62 thousand kilometre of roads will be constructed and upgraded.

Railways : The main rail route linking northern India with southern India passes through Madhya Pradesh. Main junctions in the state are Bhopal, Bina, Gwalior, Indore, Itarsi, Jabalpur, Katni, Ratlam and Ujjain. The divisional railways headquarters are at Bhopal, Ratlam and Jabalpur.

FESTIVALS

A number of festivals are celebrated in Madhya Pradesh. An important tribal festival is Bhagoriya marked by traditional gaiety and enthusiasm. Shivratri is celebrated in Khajuraho, Bhojpur, Pachmarhi and Ujjain and has its own local flavour while

Ramnavami festival at Chitrakoot and Orchha has a unique sense of devotion imbued with tradition. Festivals of Orchha, Malwa, Pachmarhi bring to the fore, repertoire of culture and art of the people. Tansen Music Festival, Gwalior, Ustad Allaaddin Khan Music Festival of Maihar, Kalidas Samaroh, Ujjain and Festival of Dances at Khajuraho are some of the well-known art festivals of Madhya Pradesh. An annual Narmada Festival has been started from this year at Bedhaghat in Jabalpur, famous for its marble rocks. A Shivpuri Festival has been started at Shivpuri. Betwa Festival has been started at Vidisha from this year.

TOURIST CENTRES

Perfectly preserved medieval cities, refreshing and enchanting wildlife sanctuaries and some of the holiest and most revered pilgrim centres offer to the tourist the most fulfilling experience. Tranquil beauty of Pachmarhi, glittering splendour of Marble Rocks and roaring sound of Dhuandhar Fall at Bedaghat, Kanha National Park, with its unique Barasingha, and Bandhavgarh National Park with its prehistoric caves and wildlife are some of the major attractions of the state. Gwalior, Mandu, Datia, Chanderi, Jabalpur, Orchha, Raisen, Sanchi, Vidisha, Udaygiri, Bhimbetika, Indore and Bhopal are the places well-known for their historical monuments. Maheshwar, Omkareshwar, Ujjain, Chitrakoot and Amarkantak are major centres of pilgrimage. Unique temples of Khajuraho are famous all over the world. The temples of Orchha, Bhojpur and Udaypur attract large number of tourists as well as pilgrims. Archaeological treasures are preserved in the museums at Satna, Sanchi, Vidisha, Gwalior, Indore, Mandsaur, Ujjain, Rajgarh, Bhopal, Jabalpur, Rewa and many other places. Omkareshwar, Maheshwar and Amarkantak have been declared as holy cities for their integrated development in accordance with their religious significance. Burhanpur is being developed as a new tourist destination.

GOVERNMENT

<i>Governor</i>	: Shri Rameshwar Thakur	<i>Chief Secretary</i>	: Avani Vaish
<i>Chief Minister</i>	: Shri Shivraj Singh Chouhan	<i>Jurisdiction of High Court</i>	: Madhya Pradesh

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population	Headquarters
1	2	3	4	5
1.	Badwani	—	10,81,039	Badwani
2.	Balaghat	9,229	14,45,760	Balaghat
3.	Betul	10,043	13,94,421	Betul
4.	Bhind	4,459	14,26,951	Bhind
5.	Bhopal	2,772	18,36,784	Bhopal
6.	Chhatarpur	8,687	14,74,633	Chhatarpur
7.	Chhindwara	11,815	18,48,882	Chhindwara
8.	Damoh	7,306	10,81,909	Damoh
9.	Datia	2,038	6,27,818	Datia
10.	Dewas	7,020	13,06,617	Dewas

11.	Dhar	8,153	17,40,577	Dhar
12.	Dindori	—	5,79,312	Dindori
13.	Guna	11,065	16,65,503	Guna
14.	Gwalior	5,214	16,29,881	Gwalior
15.	Harda	—	4,74,174	Harda
16.	Hoshangabad	10,037	10,85,011	Hoshangabad
17.	Indore	3,898	25,85,321	Indore
18.	Jabalpur	10,160	21,67,469	Jabalpur
19.	Jhabua	6,782	13,96,677	Jhabua
20.	Katni	—	10,63,689	Katni
21.	Khandwa (East Nimar)	10,779	17,03,170	Khandwa
22.	Khargone (West Nimar)	13,450	15,29,954	Khargone
23.	Mandla	13,269	8,93,908	Mandla
24.	Mandsaur	9,791	11,83,369	Mandsaur
25.	Morena	11,594	15,87,264	Morena
26.	Narsinghpur	5,133	9,57,399	Narsinghpur
27.	Neemuch	—	7,25,457	Neemuch
28.	Panna	7,135	8,54,235	Panna
29.	Raisen	8,446	11,20,159	Raisen
30.	Rajgarh	6,154	12,53,246	Rajgarh
31.	Ratlam	4,861	12,14,536	Ratlam
32.	Rewa	6,314	19,72,333	Rewa
33.	Sagar	10,252	20,21,783	Sagar
34.	Satna	7,502	19,68,648	Satna
35.	Sehore	6,578	10,78,769	Sehore
36.	Seoni	8,758	11,65,893	Seoni
37.	Shahdol	14,028	15,72,748	Shahdol
38.	Shajapur	6,196	12,90,230	Shajapur
39.	Sheopur	—	5,59,715	Sheopur
40.	Shivpuri	10,278	14,40,666	Shivpuri
41.	Sidhi	10,256	18,30,160	Sidhi
42.	Tikamgarh	5,048	12,03,533	Tikamgarh
43.	Ujjain	6,091	179,885	Ujjain
44.	Umaria	—	5,15,851	Umaria
45.	Vidisha	2,742	12,14,759	Vidisha
46.	Ashoknagar	4,673.90	6,88,940	Ashoknagar
47.	Burhanpur	2,472.5	6,35,661	Burhanpur
48.	Anuppur	3,746	6,61,127	Anuppur
49.	Alirajpur	-	-	Alirajpur
50.	Singrauli	-	-	Singrauli

MAHARASHTRA

<i>Area</i>	: 3,07,713 sq km	<i>Population (Lakh)</i>	: 968.79
<i>Capital</i>	: Mumbai	<i>Principal Language</i>	: Marathi

HISTORY AND GEOGRAPHY

The first well-known rulers of Maharashtra were the Satavahanas (230 BC to 225 AD), who were the founders of Maharashtra, and have left a plethora of literary, epigraphic, artistic, and archaeological evidence. This epoch marks tremendous development in every field of human endeavour.

Then came the Vakatakas who established a pan-Indian empire. Under them Maharashtra witnessed an all-sided development in the fields of learning, arts and religion. Some of the Ajanta Caves and fresco paintings reached their pinnacle during their rule. After the Vakatakas and after a brief interlude of the Kalachuri dynasty, the most important rulers were the Chalukyas followed by the Rashtrakutas and the Yadavas apart from the Shilaharas on the coast. The Yadavas, with Marathi as their court language extended their authority over large parts of the Deccan.

While the Bahamani rule brought a degree of cohesion to the land and its culture, a uniquely homogeneous evolution of Maharashtra as an entity became a reality under the able leadership of Shivaji. A new sense of Swaraj and nationalism was evolved by Shivaji. His noble and glorious power stalled the Mughal advances into this part of India. The Peshwas established the Maratha supremacy from the Deccan Plateau to Attack in Punjab.

Maharashtra was in the forefront during freedom struggle and it was here that the Indian National Congress was born. A galaxy of leaders from Mumbai and other cities in Maharashtra led the Congress movement under the guidance of Tilak and then Mahatma Gandhi. Maharashtra was the home of Gandhiji's movement, while Sevagram was the capital of nationalistic India during the Gandhian era.

The administrative evolution of the state of Maharashtra is the outcome of the linguistic reorganisation of the States of India, effected on 1 May 1960. The State was formed by bringing together all contiguous Marathi-speaking areas, which previously belonged to four different administrative hegemonies. They were the districts between Daman and Goa that formed part of the original British Bombay Province; five districts of the Nizam's dominion of Hyderabad; eight districts in the south of the Central provinces (Madhya Pradesh) and a sizeable number of petty native-ruled state enclaves lying enclosed within the above areas, were later merged with adjoining districts. Located in the north centre of Peninsular India, with the command of the Arabian Sea through its Port of Mumbai, Maharashtra has a remarkable physical homogeneity, enforced by its underlying geology. The dominant physical trait of the State is its plateau character. Maharashtra is a plateau of plateaus, its western upturned rims rising to form the Sahyadri Range parallel to the sea-coast and its slopes gently descending towards the east and south-east. Satpura ranges cover the northern part of the State, while Ajanta and Satmala ranges run through central part of State. Arabian Sea guards the western boundry of Maharashtra, while Gujarat and Madhya Pradesh are on the northern side. Chhattisgarh covers the eastern boundary of the State. Karnataka and Andhra Pradesh are on its southern side.

AGRICULTURE

About 65 per cent of the total workers in the State depend on agriculture and allied activities. Net irrigated area in 2007-2008 was 33.11 lakh hectare. Principal crops grown in the State are rice, jowar, bajra, wheat, tur, mung, urad, gram and other pulses. The State is a major producer of oilseeds. Groundnut, sunflower, soyabean are major oil seed crops. Important cash crops are cotton, sugarcane, turmeric and vegetables.

INDUSTRY

The State has been identified as the country's powerhouse and Mumbai, its capital as the centre point of India's financial and commercial markets. Industrial sector occupies a prominent position in the economy of Maharashtra. Food products, breweries, tobacco and related products, cotton textiles, textile products, paper and paper products, printing and publishing, rubber, plastic, chemical and chemical products, machinery, electrical machinery, apparatus and appliances, and transport equipment and parts contribute substantially to the industrial production in the state.

The contribution of Industries in the State in total value of output was 19 per cent while that in the gross value added was about 20 per cent during 2007-08.

IRRIGATION AND POWER

By the end of June 2005, 32 major, 184 medium and about 2,483 state sector minor irrigation projects had been completed. Another 47 major and 65 medium irrigation projects are under construction. The gross irrigated area in 2008-2009 was 4037 thousand hectare.

Maharashtra had an installed capacity of 17,266 MW in 2008-2009. Total power generation was 83,008 million KWH.

TRANSPORT

Roads : Total length of roads in the State as in March 2009 was 2.35 lakh km consisting of 4,367 km of national highways, 33,933 km of state highways, 49,621 km of major district roads, 46,143 km of other district roads, and 1,03,604 km of village roads.

Railways: Maharashtra has 5,982.89 km of railway routes which is 9.2 per cent of total railway route in the country.

Aviation : There are 3 International and 5 Domestic Airports in the State. To reduce congestion in Mumbai International Airport additional Airport has been proposed at Navi Mumbai.

Ports : Mumbai is a major port. There are two major and 48 notified minor ports in the State.

TOURIST CENTRES

Some important tourist centres are : Ajanta, Ellora, Elephanta, Kanheri and Karla caves, Mahabaleshwar, Matheran and Panchgani, Jawhar, Malshej ghat, Amboli, Chikaldara, Panhala Hill stations and religious places at Pandharpur, Nashik, Shirdi, Nanded, Audha Nagnath, Trimbakeshwar, Tuljapur, Ganpatipule, Bhimashanker, Harihareshwar, Shegaon, Kolhapur, Jejuri and Ambajogai.

GOVERNMENT

<i>Governor</i>	: Shri K. Sankarharayanan	<i>Chief Secretary</i>	: Shri J.P. Dange
<i>Chief Minister</i>	: Shri Prithviraj Chavan	<i>Jurisdiction of High Court</i>	: Maharashtra, Goa, Diu and Daman

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

Districts	Area (sq km)	Population (provisional)	Headquarters
Ahmednagar	17,048	40,40,462	Ahmednagar
Akola	5,429	16,30,239	Akola
Amravati	12,210	26,07,160	Amravati
Aurangabad	10,107	28,97,013	Aurangabad
Bhandara	3,895	11,36,146	Bhandara
Beed	10,693	21,61,250	Beed
Mumbai City	157	33,38,031	Mumbai
Mumbai (Sub.)	446	86,40,419	Bandra
Buldhana	9,661	22,32,480	Buldhana
Chandrapur	11,443	20,71,101	Chandrapur
Dhule	8,063	17,07,947	Dhule
Gadchiroli	14,412	9,70,294	Gadchiroli
Jalgaon	11,765	36,82,690	Jalgaon
Jalna	7,718	16,12,980	Jalna
Kolhapur	7,685	35,23,162	Kolhapur
Latur	7,157	20,80,285	Latur
Nagpur	9,802	40,67,637	Nagpur
Nanded	10,528	28,76,259	Nanded
Nashik	15,530	49,93,796	Nashik
Osmanabad	7,569	14,86,586	Osmanabad
Parbhani	6,517	15,27,715	Parbhani
Pune	15,643	72,32,555	Pune
Raigad	7,152	22,07,929	Alibag
Ratnagiri	8,208	16,96,777	Ratnagiri
Sangli	8,572	25,83,524	Sangli
Satara	10,480	28,08,994	Satara
Sindhudurg	5,207	8,68,825	Oras
Solapur	14,895	38,49,543	Solapur
Thane	9,558	81,31,849	Thane
Wardha	6,309	12,36,736	Wardha
Yavatmal	13,582	24,58,271	Yavatmal
Nandurbar	5,034	13,11,709	Nandurbar
Washim	5,153	10,20,216	Washim
Gondia	5,425	12,00,707	Gondia
Hingoli	4,524	9,87,160	Hingoli

MANIPUR

<i>Area</i>	: 22,327 sq km	<i>Population</i>	: 22,93,896 (2001 Census)
<i>Capital</i>	: Imphal	<i>Principal Language</i>	: Manipuri

HISTORY AND GEOGRAPHY

Manipur has a long and glorious history from before the beginning of the Christian era. The political history of Manipur started from 33 A.D. with the coronation of Nongda Lairen Pakhangba. After Pakhangba a number of kings ruled over the kingdom of Manipur. The independence and sovereignty of Manipur remained uninterrupted until the Burmese invaded and occupied it for approximately seven years in the first quarter of the 19th century (1819-1826). Then, Manipur came under British Rule on 27 April 1891. Manipur regained its independence in 1947 and merged into Indian Union on 15 October 1950. Thus, it became a Part C State under a Chief Commissioner. During 1950-51, an Advisory form of Government was introduced and in 1957 this was replaced by a Territorial Council of 30 elected and 2 nominated members. Later, in 1963 a Territorial Assembly of 30 elected and 3 nominated members was established under the Government of Union Territories Act, 1963. The status of administrator was raised from that of a Chief Commissioner to that of a Lt. Governor in December 1969. Manipur became a full-fledged State on 21 January 1972 with a Legislative Assembly of 60 members of whom 19 are reserved for Scheduled Tribes and one for Scheduled Castes. The State is represented in the Lok Sabha by two members and by one member in the Rajya Sabha.

AGRICULTURE

Agriculture and allied activities are the only mainstay of the State's economy where about 70 per cent of the population depends on it. The state has two topographical zones — valley and hills. The valley is known as the 'Rice Bowl' of the State. The valley has sub-tropical to tropical to sub-temperate climate. The hills have sub-temperate to temperate climate with an average altitude of 3000 metres above MSL. The State has distinct winter, warm, humid and rainy summer. The average rainfall during the last 10 years was 1482.20 mm with heavy precipitation during the months of June, July and August. The growth of agriculture in the State has been quite uneven and unsatisfactory for the reason that its production still depends on seasonal rainfall.

Agriculture in the State is confined to 10.48 per cent of the total geographical area. The percentage of agricultural land in valley districts is 47 per cent and that in the hill districts is 53 per cent. According to 2001 census, the ratio between man and agricultural land in ha is 1:0.10. The irrigated area is 30,980 ha. i.e. 13.24 per cent of the net agricultural land. The State is marginally deficit in cereals and highly deficit in the production of oilseeds and pulses. In spite of the rapid advancement in the crop productivity, the rapid population growth poses a great problem to agriculture in the State.

The Annual Plan 2010-2011 of the State Agriculture Department aims :

- i) To increase the Net Agricultural Area of the State to the tune of 0.15 per cent and 1.90 per cent Gross Agricultural Area over the anticipated achievement at 2008-09.
- ii) To increase the cropping intensity from the present level of 134.88 per cent (2008-09) to 146.10 per cent.

- iii) 3.11 per cent Annual growth rate of the overall crop over the anticipated achievement of 2009-10.

FOREST

According to the State Forest Report, 2009 prepared by Forest Survey of India, Dehradun, the forest cover in the State, based on interpretation of satellite data of December 2006 to January 2007, is 17,280 sq. km, which is 77.40% of the State's geographical area. In terms of forest canopy density classes, the State has 701 sq. km. very dense forests, 5474 sq. km. moderately dense forests and 11.105 sq. km. open forests. Comparison of the current forest cover with the previous assessment in 2005 shows an overall increase in forest cover of 328 sq. km. This overall increase in forest cover is mainly due to regeneration in abandoned jhum areas.

Siroy hill range in Ukhrul District, Manipur is the abode of Siroy Lily (*Lilium macklineae*), the flower which is not found elsewhere in the world. The Dzuko valley is also the only habitat of the endemic and the rare species—Dzuko Lily (*Lilium chitrangade*).

IRRIGATION

Major and Medium Irrigation had been introduced in the State since 1980. So far 8 (eight) Major and Medium Irrigation & Multipurpose Projects have been taken up of which 5 (five) projects viz. Loktak Lift Irrigation Project, Khoupum Dam Project, Imphal Barrage Project, Sekmai Barrage Project and Singda Multipurpose Project were completed by the end of 8th Plan. By the end of Eighth Plan period, only about 67,546 ha. has been brought under irrigation of which Major and Medium irrigation projects contributed 28,150 ha. and Minor Irrigation contributed 39,396 ha.

On completion of the ongoing projects with modernization of the completed projects an ultimate annual irrigation of 99,59,000 ha., water supply of 19 MGD and power generation of 9.75 MW will accrue to the State.

COMMERCE & INDUSTRIES

The Handloom industry is by far the largest and most important cottage industry in Manipur. It is improving the socio-economic conditions of handloom weavers and attained high degree of excellence centuries well before the machines were invented to produce cloth. It continues to be so even now in this age of modern sophisticated machines. As per National Handloom Census, 1995-96 report conducted by the National Council for Applied Economic Research, New Delhi, Manipur has 4.62 lakh handloom workers which is 2nd position among the States, 2.81 lakh looms which is 4th position, consuming 12.196 lakh kg of yarn per month which is 7th position and produced 96.07 lakh metres of handloom fabrics which is also 7th among States of the country. With this potential, the State Government has been implementing various welfare as well as developmental handloom schemes for promotion and development of handloom industry as employment generating programme in the State. Food Processing Industries is a progressing sector in Manipur, based on the abundantly available raw materials. The State Government is implementing various new and ongoing schemes, such as Food Processing Training Centre, Regional Extension Service Centres, Training on FPI, Research and Development on FPI, Mobile Fruit Juice Extraction-cum-Training Units, Preparation of Project Report, Support to

FPI units, Quality control and Codex Cell, Promotional Activities in FPI, Assistance to Ex-trainees of FPI, etc. Setting up of a Food Park at Nilakuthi, Imphal East District is in good progress and it will provide common facilities like cold storage, weigh bridge, warehouse, quality control labs, packaging, tool room, power and water supply, sewage treatment, etc. This park will provide facilities to set up 40-50 Food Processing Units which will directly and indirectly employ 200-300 persons but also thousands of farmers, traders, businessmen, etc.

POWER

Power Supply in Manipur is fully dependent on the Central Generating Stations situated in the North Eastern Region (NER). Peak demands for night and day are of the order of 150 & 100 MW in summer and 170 & 110 MW in winter. As the generating stations in the NER are mainly of hydel in nature, during lean period there is a shortfall in generation and therefore the available share of Manipur reduces drastically.

TRANSPORT

Roads: Road Transport is the only means of communication for development of the State as there are no inland Waterways, Railways or Ropeways. All development activities depend entirely on the road transport facilities.

The total length of roads in Manipur by 2009 including National Highways, NEC, BRTF and Roads under Rural Development, was 12618 km. Out of the total road length, the surfaced length is 5443 km.

3 National Highways : i) NH-39, ii) NH-53 and iii) NH-150 criss-cross the State connecting all Districts. Imphal the capital of Manipur is joined by NH-39 with Nagaland on the north and Myanmar on the east, on the west with Assam by NH-53 and Mizoram on the south by NH-150.

Aviation : Imphal Airport is the second largest airport in the North Eastern Region. Imphal is connected to Aizwal, Guwahati, Kolkata, Silchar, Bangalulu and New Delhi by Air India, JetLite, Indigo and Kingfisher Airlines.

Imphal Airport is being upgraded to international status. The Construction of infrastructure for Night Landing Facility at Imphal airport has been completed. A "dedicated airline" for NE Region, particularly for connectivity within the NE States is under consideration of NEC/DoNER.

Railways: The State is included in the railway map of India with the opening of a rail head at Jiribam in May 1990. It is 225 km from Imphal. Dimapur (Nagaland), 215 km from Imphal is the nearest rail-head.

The Jiribam - Tupul - Imphal Railway line has been declared as a National Project. Construction of the Line is in good progress and is targeted for completion by 2014 (upto Tupul) and 2016 (upto Imphal).

FESTIVALS

A year in Manipur represents a cycle of festivals. Hardly a month passes by without a festival which to the Manipuris is a symbol of their social, cultural and religious aspirations. Important festivals of the State are : Lai Haraoba, Rasa Leela, Cheiraoba, Ningol Chak-Kouba, Rath-Jatra, Idul Fitre, Imoinu Iratpa, Gaan-Ngai, Lui-Ngai-Ni, Idul Zuha. Yaoshang (Holi), Durga Pujah, Mera Houchongba, Diwali, Kut, Christmas, etc.

TOURIST CENTRES

Manipur is not only the gateway of the North Eastern region but is also a fascinating destination for discerning tourists. Blessed with a salubrious climate, natural beauty and scenic splendour, the state extends to the tourists a warm welcome. Some important tourist centres in the State are : Kangla, Shree Shree Govindajee Temple, Khwalramband Bazar (Ima Keithel), War Cemeteries, Shaheed Minar, Nupi Lan (Women's War) Memorial Complex, Khonghampat Orchidarium, INA Memorial (Moirang), Loktak Lake, Keibul Lamjao National Park, Sendra, Moreh, Siroy Hills, Dzuko Valley, State Museum, Kaina Tourist Home, Khongjom War Memorial Complex, India Peace Memorial (Red Hill) etc.

GOVERNMENT

<i>Governor</i>	: Shri Gurbachan Jagat	<i>Chief Secretary</i>	: Shri D.S. Poonia, IAS
<i>Chief Minister</i>	: Shri O. Ibobi Singh	<i>Jurisdiction of High Court</i>	: A permanent bench of the Guwahati High Court, Imphal Bench started functioning from 14 March 1992. The Chief Justice of India laid foundation stone for construction of a new High Court Complex on 30 April 2006

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.N.	District	Area	Population	Headquarters
1.	Senapati	3,271	2,83,621	Senapati
2.	Ukhrul	4,544	1,40,778	Ukhrul
3.	Chandel	3,313	1,18,327	Chandel
4.	Churachandpur	4,570	2,27,905	Churachandpur
5.	Tamenglong	4,391	1,11,499	Tamenglong
6.	Imphal (West)	519	4,44,382	Lamphepat
7.	Imphal (East)	709	3,94,876	Porompat
8.	Thoubal	514	3,64,140	Thoubalpat
9.	Bishnupur	496	2,08,368	Bishnupur
Total		22,32722,93,896 (Census 2001)		

MIZORAM

<i>Area</i>	: 21,081 sq km	<i>Population</i>	: 8,91,058
<i>Capital</i>	: Aizawl	<i>Principal Languages</i>	: Mizo and English

HISTORY AND GEOGRAPHY

Mizoram is a mountainous region which became the 23rd state of the Indian Union in February 1987. It was one of the districts of Assam till 1972 when it became a Union Territory. After being annexed by the British in 1891, for the first few years,

Lushai Hills in the north remained under Assam while the southern half remained under Bengal. Both these parts were amalgamated in 1898 into one district called Lushai Hills District under the Chief Commissioner of Assam. With the implementation of the North-Eastern Reorganisation Act in 1972, Mizoram became a Union Territory and as a sequel to the signing of the historic memorandum of settlement between the Government of India and the Mizo National Front in 1986, it was granted statehood on 20 February 1987. Sandwiched between Myanmar in the east and the south and Bangladesh in the west, Mizoram occupies an area of great strategic importance in the north-eastern corner of India. Mizoram has great natural beauty and an endless variety of landscape. It is rich in fauna and flora.

The origin of the word 'Mizo' is not known. The Mizos came under the influence of the British Missionaries in the 19th century. Now most of the Mizos are Christians. Mizo language has no script of its own. The missionaries introduced the Roman script for the Mizo language and formal education. Literacy in the state has grown rapidly, and Mizoram's literacy at 88.8 per cent today is the second highest in the country. The state government is striving hard to attain the top position in the near future.

AGRICULTURE

About 80 per cent of the people of Mizoram are engaged in agricultural pursuits. The main pattern of agriculture followed is Jhum or Shifting cultivation. Of the total 21 lakh ha. of land estimated, 6.30 lakh hectare of land is available for cultivation of horticulture crops. The existing area under different horticulture crops account for about 4127.6 hectare, which is only 6.55 per cent of the estimated potential area. This indicates the vast scope for horticulture crops to flourish in Mizoram. The main horticulture crops are Mandarin Orange, Banana, Passion Fruit, Grapes, Hatkora, Pineapple, Papaya, etc., and flowers like Anthurium, Bird of Paradise, Orchid, Chrysanthemum, Rose and other subsidiary seasonal flowers. Spices like Ginger, Turmeric, Black Pepper and Bird's eye Chillies are also grown. People have also started extensive cultivation of oil palm, medicinal and aromatic plants.

IRRIGATION

The ultimate surface irrigation potential is estimated at 70,000 hectare of which 45,000 hectare is under flow and 25,000 hectare by construction. 70 pucca minor irrigation projects and six lift irrigation projects for raising double and triple crops in a year are nearing completion.

INDUSTRY

The entire Mizoram is a Notified Backward Area and was categorised under 'No Industry District' in mid seventies. With the announcement of State Industrial Policy 1989, few modern small-scale industries have come up during the past decade. To further accelerate growth of industries, a New Industrial Policy of Mizoram was announced in the year 2000. The Policy identified thrust areas like Electronics and Information Technology, Bamboo and Timber based products, Food and Fruit Processing, Textiles, Handloom and Handicrafts, etc.

In order to attract investment from outside the state, the Policy permits joint venture for all large, medium and small scale industries with local partners. Infrastructural development like Industrial Growth Centre (IGC) at Luangmual,

Aizawl, Export Promotion Industrial Park (EPIP) at Lengte, Integrated Infrastructural Development Centre (IIDC) at Pukpui, Lunglei and Food Park at Chhingchhip are nearing completion, apart from upgradation of the existing industrial estates.

Scientific cultivation of Tea has also been taken up. Establishment of Apparel Training and Design Centre, Gems cutting and polishing are in the pipeline to encourage setting up of Export Oriented Units (EOUs). Of the cottage industries, Handloom and Handicrafts are given high priority and the two sectors are flourishing to meet consumers' demand in the state and in the neighbouring states of Meghalaya, Nagaland, etc.

With the opening up of border trade with Myanmar and Bangladesh, and the 'Look East Policy' of the Government of India coupled with the peaceful condition of the state, Mizoram will no more be a remote corner state of the country, and as a result of which industrialisation will substantially gain momentum in the near future.

POWER

Construction of Tuirial HEP (60 MW) is in progress. Survey and investigation works of Kolodyne HEP (500 MW) has been completed by CWC. This project provides inland water transport facilities for the region besides generating 500 MW of power and the Government of Mizoram has given paramount importance to it. 3 MW capacity Tuipanglui and Kau-Tlabung SHPs were commissioned recently thus enhancing the state's hydro generation by 15 MW capacity. Works on Maicham-II (3 MW), Serlui 'B' (12 MW) and Lamsial (0.5 MW) SHPs were in progress and expected to be commissioned during 2007.

A total of 695 villages have been electrified and 709 km of 132 kv line completed.

TRANSPORT

Total road length in the state is 5,982.25 km (BRO & State PWD). Rail link in the state has been established at Bairabi. Aizawl is connected by air. In order to have a better connectivity, the Government has undertaken the Mizoram State Roads Projects with a total cost of ₹ 350 crore under funds provided by the World Bank. Connectivity under PMGSY covering a total length of 2,421 km connecting 384 villages of Mizoram is making steady progress.

FESTIVALS

Mizos are basically agriculture oriented. All their activities centre around jhum cultivation and their festivals are linked with such agricultural operations. Kut is the Mizo term for festival. Among the various cultural festivals, only three, viz. *Chapchar Kut*, *Mim Kut* and *Thalfavang Kut* are observed today.

TOURIST CENTRES

Aizawl, located at nearly 4,000 ft. above sea level, is a religious and cultural centre of Mizoram. Champhai is a beautiful resort on the Myanmar border. Tam Dil, a natural lake with virgin forests, is 80 km from Aizawl and 10 km from Tourist Resort of Saitual. Vantawng Falls, 5 km from the town of Thenzawl, is the highest and most beautiful waterfall in Mizoram. The department of Tourism has opened Tourist Lodges in all the bigger towns all over the state, and Highway Restaurants and Travellers'

Inns in other townships. There is also a Recreational Centre at Beraw Tlang, Aizawl and Alpine Picnic Hut at District Park near Zobawk.

GOVERNMENT

<i>Governor</i>	: Lt. Gen. (Retd.) M.M. Lakhera	<i>Chief Secretary</i>	: Shri Venhela Pachauau
<i>Chief Minister</i>	: Shri P.U. Lalthanhawla	<i>Jurisdiction of High Court</i>	: Falls under the jurisdiction of Guwahati High Court. There is a bench at Mizoram.

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population	Headquarters
1.	Aizawl	3,576.31	3,39,812	Aizawl
2.	Lunglei	4,538.00	1,37,155	Lunglei
3.	Chhimituipui	1,399.90	60,823	Saiha
4.	Lawngtlai	2,557.10	73,050	Lawngtlai
5.	Champhai	3,185.85	1,01,389	Champhai
6.	Kolasib	1,282.51	60,977	Kolasib
7.	Mamit	3,025.75	62,313	Mamit
8.	Serchhip	1,421.60	55,539	Serchhip

NAGALAND

<i>Area</i>	: 16,579 sq km	<i>Population</i>	: 19,88,636
<i>Capital</i>	: Kohima	<i>Principal Languages</i>	: English, Hindi and 16 tribal dialects

HISTORY AND GEOGRAPHY

Nagaland, the 16th State of the Indian Union, was established on 1 December 1963. It is bound by Myanmar on the east, Arunachal on the north, Assam on the west and Manipur on the South. It lies between the parallels of 98 degree and 96 degree East Longitude and 26.6 degree and 27.4 degree latitude North of the Equator.

The State of Nagaland has an area of 16,579 sq km with a population of 19,88,636 as per the 2001 census. The State is mostly mountainous except those areas bordering Assam valley. Mount Saramati is the highest peak in Nagaland with a height of 3,840 metres and its range forms a natural barrier between Nagaland and Myanmar.

The Nagas belong to the Indo-Mongoloid group of people living in the contiguous areas of the North Eastern hills of India and the upper portion of Western Myanmar. The major-recognised tribes of Nagaland are Angami, Ao, Chakhesang, Chang, Khamniungan, Kuki, Konyak, Lotha, Phom, Pochury, Rengma, Sangtam, Sumi, Yimchungru and Zeliang. The Naga languages differ from tribe to tribe and sometimes even from one village to another. They are, however, under the Tibeto-Burma family.

In the 12th and 13th centuries, gradual contacts with the Ahoms of present-day Assam was established but this did not have any significant impact on the traditional Naga way of life. However, in the 19th century the British appeared on the scene and ultimately the area was brought under British Administration. After Independence this territory was made a centrally administered area in 1957 administered by the Governor of Assam. It was known as the Naga Hills Tuensang Area. This failed to quell popular aspirations, and unrest began. Hence, in 1961, the area was renamed as Nagaland and given the status of State of the Indian Union, which was formally inaugurated on 1 December 1963.

AGRICULTURE

Nagaland is basically a land of agriculture. About 70 per cent of the population depends on agriculture. The contribution of agricultural sector in the state is very significant. Rice is the staple food. It occupies about 70 per cent of the total area under cultivation and constitutes about 75 per cent of the total food production in the state.

The major land use pattern is *slash and burn* cultivation locally known as Jhum. Total cultivable areas is 7,21,924 hectare. Area under jhum cultivation and terraced cultivation is about 1,01,400 hectare. The total food production during the year 2009-10 was 3,67,820 MT.

Out of the total land area, forest area occupies approximately 8,62,930 ha. There are wild life sanctuaries and national parks, namely, Intanki and Puliebadze in Kohima District, Fakim in Tuensang and Rangapahar in Dimapur.

POWER

The State's installed generation capacity is 27.84 MW only from Small Hydro Electric Power Projects against the State's requirement of 95 MW. The State's main source of power is from the Central Sector Power allocation. The total number of consumers is 1,70,000 (approximately) 90% of which is domestic.

The projected demand by the end of the 11th Plan for industrialisation, economic development and growth in the State is 200 MW from the existing level of 95 MW. Further, by the end of 12th Plan and 2020 the Department is forecasting load growth of 300 MW and 500 MW respectively. The need to focus on the exploration and harnessing different sources of energy in the State is of utmost importance. The State has therefore identified to take up various Small Potential Hydro Projects.

IRRIGATION

The State has so far been constructing minor irrigations to divert small hill streams to the valleys and terraced fields for rice cultivation covering an area of 82,150 hectare. Under the NEC Programme the State is implementing Themezie M.I. Project at Chiechama Village under Kohima District. The State has also proposed Dziidza Medium Irrigation Project which is under consideration by the Ministry of Water Resources (Gol) for funding under AIBP Scheme.

TRANSPORT

The state of Nagaland is connected to the rest of the country with Airport and Railway stations at Dimapur and National Highway 19 which passes through the State from Dimapur via Kohima to Manipur. This NH 39 is soon to be an international route under the Look East Policy of the Government of India. The rest of the State of Nagaland is connected only with roads covering about 23,466 km, these include the NH 61 and State highways. The State is also inter-connected with postal services in all district Hqrs, Telephone line and mobile services.

TOURISM

With the opening of the State is to international tourist by relaxation of Restricted Area Permit (RAP), a good number of foreign tourists as well as domestic tourists visit Nagaland every year.

The HORNBILL, Festival conceived by the Tourist Department and held in the first week of December is an annual event where all tribes of Nagaland come together to celebrate, exhibit and sell their traditional wares, foodstuffs and crafts. Three traditional festivals, namely Sekrenyi at ToupHEMA in Kohima District (February), Monyu all at Pongo in Longleng Sub-division (April) and Moatsii at Chuchuyimlang in Mokokchung district (May) have been identified as festival destinations.

Music and dances are an intrinsic part of Naga life. Folk Songs and ballads eulogizing bravery, beauty, love, generosity, etc. are transmitted from generation to generation. Likewise dancing is an important part of every festive occasion. Feasting, singing, dancing and merrymaking invariably accompany festivals. Names of the tribes and their festivals are : -Angami-Sekrenyi, Ao-Moatsii, Chakhesang-Sukhrunye & Tsiukhenye, Chang-Naknyulem, Khiamnilungan-Tsokiim, Kuki-Mimkut, Konyak-Aoleang Monyu, Kachari-Bushu, Lotha-Tokhu Emong, Phom-Monyu, Pochury Yemshe, Rengma-Ngada, Sumi-Tuluni, Sangiam-Amongmong, Yimchungriiu-Metemneo, and Zeliang Meileingi/Hega Langsimngi/Chegagadi.

INDUSTRIES

The process of industrialisation in the state is in its infancy, but the need to have more industries has been well recognized. Nagaland Mechanised Bricks Co. Ltd., in Dimapur with one lakh capacity of bricks per day has been commissioned. Handloom and Handicrafts are important cottage industries, which are mainly being managed by cooperative societies. The Nagaland Handloom and Handicrafts Development Corporation Ltd. in Dimapur is the state owned corporation, which is responsible for the promotion and marketing of handloom and handicraft products in the state. An industrial growth centre at Ganeshnagar near Dimapur is ready for operation.

The Nagaland Industrial Development Corporation is the premier promotional organisation in providing guidance and capital assistance to entrepreneurs. The fruits and vegetables processing and cold storage plant at Dimapur has an installed capacity of processing 5 MT of fruits and vegetables per day and 3000 MT cold storage facility.

GOVERNMENT

<i>Governor</i>	: Shri Nikhil Kumar	<i>Chief Secretary</i>	: Shri Lalthara
<i>Chief Minister</i>	: Shri Neiphiu Rio	<i>Jurisdiction of High Court</i>	: Falls under Guwahati High Court. There is a bench at Kohima.

AREA, POPULATION AND DISTRICT HEADQUARTERS

S. No.	District	Area (sq km)	Population	Headquarters
1.	Kohima	3,114	3,14,366	Kohima
2.	Mokokchung	1,615	2,27,230	Mokokchung
3.	Mon	1,786	2,59,604	Mon

4.	Tuensang	4,228	4,14,801	Tuemsang
5.	Zunheboto	1,255	1,54,909	Zunheboto
6.	Wokha	1,628	1,61,098	Wokha
7.	Dimapur	927	3,08,382	Dimapur
8.	Phek	2,026	1,48,246	Phek
9.	Longleng	-	-	Longieng
10.	Kiphise	-	-	Kiphire
11.	Peren	-	-	Peren

ORISSA

Area : 1,55,707 sq km

Population : 3,68,04,660

Capital : Bhubaneswar

Principal Language : Oriya

HISTORY AND GEOGRAPHY

Orissa, the land of Oriyas, was known as Kalinga in ancient days. In the third century BC (261 BC) Ashoka the Mauryan emperor, sent a powerful force to conquer Kalinga which offered stubborn resistance. Kalinga was subdued but the carnage which followed, struck Ashoka with remorse. After the death of Ashoka, Kalinga regained its independence. In the second century BC, it became a powerful country under Kharavela. With the death of Kharavela, Orissa passed into obscurity. In the fourth century AD, Samudragupta invaded Orissa which lay astride his path and overcame resistance offered by five of its kings. In 610 AD, Orissa came under the sway of King Sasanka. After Sasank's death, Harsha conquered Orissa.

Orissa had its own rulers (Ganga dynasty) in the seventh century AD. In 795 AD, Mahasivagupta Yajati II came to the throne and with him began the most brilliant epoch in the history of Orissa. He united Kalinga, Kangoda, Utkal and Koshala in the imperial tradition of Kharavela. Under the kings of Ganga dynasty, Orissa continued to flourish. Narasingha Dev of this dynasty is reputed to have built the unique Sun Temple of Konark. From mid-16th Century, Orissa was ruled successively by five Muslim kings till 1592, when Akbar annexed it into the Mughal empire. With the decline of the Mughal empire, Marathas occupied Orissa. They continued to hold it till the British took over in 1803.

Orissa was made into a separate province on 1 April 1936. After Independence, princely states in and around Orissa surrendered their sovereignty to the Government of India. By the States Merger (Governor's provinces) Order, 1949 the princely states of Orissa were completely merged with the state of Orissa in January 1949. Although the state of Orissa had many ancient names like Kalinga, Utkal and Udra, it is widely known as the land of Lord Jagannath. Lord Jagannath is intimately connected with the social, cultural and religious life of Orissa. Jainism, Islam and Christianity have had considerable impact on the people of Orissa in different periods.

Orissa is situated in the north-eastern part of the Indian peninsula. It is bounded by the Bay of Bengal on the east, West Bengal on the north-east, Jharkhand on the north, Chhattisgarh on the west and Andhra Pradesh on the south. The state may be broadly divided into four geographical regions—the northern plateau, central river basin, eastern hills and coastal plains.

AGRICULTURE

Agriculture occupies a vital place in the economy of the State. It contributes 26 per cent of the net domestic product of the state. 70 per cent of the total work force is directly or indirectly engaged in agriculture. The production of foodgrains has fluctuated over the years. This is due to various natural calamities. However, during 2007-08, about 75.41 lakh MT of food grains were produced in the State.

IRRIGATION

Irrigation is one of the key factors not only to stabilize agricultural production but also to encourage farmers to go for higher application of inputs and adoption of most modern technology to increase production. About 28.45 lakh hectare of land has been brought under irrigation.

POWER

The estimated average demand for power in the State is 1900 MW. and peak demand is 2350 MW. Against this present availability of power in normal monsoon period is 2200 MW. and 2650 MW. respectively. Out of the 47,529 inhabited villages in the state, 28,504 villages have been electrified by the end of 2007-08. The State Government also launched 'Biju Gram Jyoti Yojana' to ensure electricity to all villages/habitations having less than 100 population. Besides, Orissa was the first state in the country to undertake reform and restructuring of the power sector and privatisation of distribution system.

INDUSTRY

The Industrial Promotion and Investment Corporation Limited (IPICOL), Industrial Development Corporation Limited (IDCOL) and Orissa State Electronics Development Corporation (OSED) are the three nodal agencies for promotion of large and medium industries in the State. State Government has signed 86 MOUs under different sectors such as steel, power, cement, aluminium/alumina, oil refinery, auto sector, special metal with a total investment of Rs. 411725.72 crore. 29 projects under steel sector, 2 projects under Alumina/Aluminium, one project under cement, and one project under auto component have gone into partial production. Besides, by the end of 2007-08, 4710 Micro, small and medium enterprises went into production with total investment of Rs. 295.51 crore.

TRANSPORT

During 2007-08 the total road length of the state comprised 3,592 km National Highway, 18 km State Express Highway, 3675 km State Highway, 3984 km of Major District Roads, 6564 km of other District Roads, 20,314 km Rural Roads, 20,314 km Panchayat Samiti Roads, 1,39,942 km Gram Panchayat Roads, 7,432 km Forest Roads, 18,192 km Urban Roads, 6,277 km Irrigation Roads and 88 km GRIDCO road.

Railways : The State had 2339 km of railway route including 54 km of narrow gauge.

Aviation : The expansion and modernisation of Bhubaneswar airport is in progress. Direct link is available from Bhubaneswar to places like Delhi, Kolkata, Mumbai, Bangalore and Hyderabad. There are 13 airstrips and 16 helipads at different places in the state for landing of state Government aircraft and helicopters.

Ports : Paradeep is the only major port of the State. Gopalpur has been developed as an all-weather port. Besides, Government has identified 14 potential sites for development of ports in the State. Establishment of a mega port at Dhamra is in progress.

GOVERNMENT

<i>Governor</i>	: Shri Muralidharan Chandrakanta Bhandare	<i>Chief Secretary</i>	: Shri Bijai Kumar Patnaik
<i>Chief Minister</i>	: Shri Naveen Patnaik <i>High Court</i>	<i>Jurisdiction of</i>	: Orissa

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population	Headquarters
1.	Angul	6,375	11,40,003	Angul
2.	Balasore	3,806	20,24,508	Balasore
3.	Bolangir	6,575	13,37,194	Bolangir
4.	Boudh	3,098	37,33,72	Boudh
5.	Bhadrak	2,505	13,33,749	Bhadrak
6.	Bargarh	5,837	13,46,336	Bargarh
7.	Cuttack	3,932	23,41,984	Cuttack
8.	Deogarh	2,940	2,74,108	Deogarh
9.	Ganjam	8,206	31,60,635	Chhatrapur
10.	Dhenkanal	4,452	10,66,878	Dhenkanal
11.	Gajapati	4,325	51,18,837	Parlakhemundi
12.	Jagatsinghpur	1,668	10,57,629	Jagatsinghpur
13.	Jajpur	2,899	16,24,341	Jajapur Town
14.	Jharsuguda	2,081	5,09,716	Jharsuguda
15.	Keonjhar	8,303	15,61,990	Keonjhar
16.	Kalahandi	7,920	13,35,494	Bhawanipatna
17.	Koraput	8,807	11,80,637	Koraput
18.	Kendrapara	2,644	13,02,005	Kendrapara
19.	Khurda	2,813	18,77,395	Khurda
20.	Mayurbhanja	10,418	22,23,456	Baripada
21.	Malkangiri	5,791	5,04,198	Malkangiri
22.	Nawarangpur	5,291	10,25,766	Nawarangpur
23.	Nayagarh	3,890	8,64,516	Nayagarh
24.	Nuapada	3,852	5,30,690	Nuapada
25.	Puri	3,479	15,02,682	Puri
26.	Kandhamal	8,021	6,48,201	Phulbani
27.	Rayagada	7,073	8,31,109	Rayagada
28.	Sambalpur	6,657	9,35,613	Sambalpur
29.	Sundargarh	9,712	18,30,673	Sundargarh
30.	Sonepur	2,337	5,41,835	Sonepur

PUNJAB

<i>Area</i> : 50,362 sq km	<i>Population</i> : 2,43,58,999
<i>Capital</i> : Chandigarh	<i>Principal Language</i> : Punjabi

HISTORY AND GEOGRAPHY

Ancient Punjab formed part of the vast Indo-Iranian region. In later years it saw the rise and fall of the Mauryas, Bactrians, Greeks, Sakas, Kushans and Guptas. Medieval Punjab saw a supremacy of the Muslims. Ghaznavi was followed by the Ghoris, the slaves, the Khiljis, the Tughlaks, the Lodhis and the Mughals. Fifteenth and sixteenth centuries marked a period of watershed in the history of Punjab. Through teachings of Guru Nanak, Bhakti movement received a great impetus. Sikhism began as a socio-religious movement, which was more interested in fighting evils in religion and society. It was Guru Gobind Singh, the tenth Guru, who transformed the Sikhs into the Khalsa. They rose to challenge tyranny and after centuries of servitude, established a humane Punjabi Raj based on secularism and patriotism. Maharaja Ranjit Singh, in the words of a Persian writer, changed Punjab from Madam Kada to Bagh-Bahist (from the abode of sorrow to the garden of paradise). But soon after his death the entire edifice collapsed due to internal intrigues and British machinations. After two abortive Anglo-Sikh wars, Punjab was finally annexed to the British Empire in 1849.

The fight against the British rule had begun long before Mahatma Gandhi's arrival on the scene. The revolt found expression through the movement of a revivalist or reformist character. First, it was the Namdhari sect, which believed in self-discipline and self-rule. Later, it was Lala Lajpat Rai who played a leading role in the Freedom Movement. Punjab was in the vanguard of India's freedom struggle on all fronts in India and abroad. Punjab's hardships did not end with Independence. It had to face the misery of Partition with large-scale bloodshed and migration. Besides their rehabilitation, there was the task of reorganisation of the State.

Eight princely states of East Punjab were grouped together to form a single state called PEPSU—Patiala and the East Punjab States Union—with Patiala as its capital. PEPSU state was merged with Punjab in 1956. Later in 1966, Haryana was carved out of Punjab and during the same year the erstwhile capital of Punjab was shifted from Shimla to Chandigarh.

Situated in the north-western corner of the country, Punjab is bounded on the west by Pakistan, on the north by Jammu and Kashmir, on the north-east by Himachal Pradesh and on the south by Haryana and Rajasthan. There are 13 Members of Parliament from Punjab and 117 Members of Legislature are elected to form the state Government.

AGRICULTURE

The State has 84% of its total geographical area (50.33 lakh hectare) under cultivation. The cropping intensity is around 189% with over 97% of the cultivable area being under assured irrigation. The State produces 20% of the country's wheat, 11% rice, 13% cotton and contributes significantly to the Central Pool with about 50% wheat and 40% rice. The paddy and wheat productivity in the State is 4022 kg/ha and 4450 kg/ha against the national average of 2173 kg/ha and 2868 kg/ha respectively. Fertilizer consumption at 225 kg/ha is almost two times higher than the national

average of 113 kg/ha. The State's farm economy is highly mechanized with 18% of the country's tractors.

INDUSTRY

There are 1.54 lakh small-scale and 375 large and medium units in the state of Punjab as on 31 March 2009. These units produce bicycle parts, sewing machines, hand tools, machine tools, auto parts, electrical items, sports goods, surgical instruments, leather goods, hosiery, knitwear, nuts and bolts, textile goods, textile, sugar, vegetable oil, etc., giving employment to about 11.69 lakh persons. S.A.S Nagar (Mohali) in the vicinity of Chandigarh has emerged as an attractive destination for IT and IT enabled industries. Under the Industrial Infrastructure Upgradation Scheme (IIUS), Government of India has approved Machine Tools Cluster at Batala. Government of India is yet to approve the proposals for setting up of Hand Tool Cluster at Jalandhar and Common Facility Centre for Knitwear and Apparel Exporters Organization, at Ludhiana. State Government proposes to set up three more clusters namely steel Rolling Mills Cluster, Mandi Gobindgarh, Information Technology Park and Development of Spinning Industry, for these project reports are being prepared. Besides the above-mentioned clusters, 22 clusters of Micro, Small & Medium industries have been identified for development in the state and proposals have been sent to Department of Micro Small & Medium Enterprises, Government of India, New Delhi. Out of these 13 proposals have been approved by Government of India for conducting Diagnostic Study Report.

Development of Industry has been adversely affected in the State as a result of withdrawal of Freight Equalization on coal and Iron & Steel by Government of India. This has been further compounded with grant of tax exemption to the neighbouring States of Himachal Pradesh and Jammu & Kashmir. As a result a large number of Industrial Units from Punjab have expanded their capacities by making investments in the State of Himachal Pradesh and Jammu & Kashmir.

IRRIGATION

The total geographical area of the State is 50.36 lakh hectare, out of which about 41.74 lakh hectare area is under cultivation. After partition of the country in 1947, Indus water treaty of 1960 between India and Pakistan restricted India's right to usage to only three eastern rivers Satluj, Beas and Ravi. The State has three dams namely Bhakra Dam with storage capacity of 5.60 MAF constructed on River Satluj, Pong Dam with storage capacity 1.90 MAF constructed on River Ravi. At present the area under irrigation is 40.77 lakh hectare, which is 97.68% of the area under cultivation. The canal surface water distribution system consists of 14500 km of Canals/Distributaries covering six major systems in the state namely: Sirhind Canal system, Bhakra Main Line, Bist Doab Canal, Upper Bari Doab Canal, Sirhind feeder and Eastern canal. 27% area is irrigated by canal surface water and 73% area by 12.82 lakh tubewells. The total length of watercourses is 1,20,000 km in the State, out of which 41,294 km watercourses have been lined so far. The canal water and electricity are being provided free of cost to the farmers in the State.

Project for remodelling of UBDC System to utilise additional water available on completion of Ranjit Sagar Dam has been completed under AIBP at a cost of Rs. 177.80 crore and benefited the 118 thousand hectare area of Amritsar and

Gurdaspur district. The problem of adequate water discharge in Kasur Branch Lower and Sabraon Branch Canal System has been removed by undertaking the remodelling of their parent channel, i.e., Kasur Branch Upper, thereby restoring adequate canal water supplies to the vast agricultural area of UBDC System.

The backward Kandi Area in Punjab has been developed by constructing 12 Low Dams with estimate cost of Rs. 420.00 crore which will further provide irrigation facilities to 12000 hectare. Similarly with the completion of Kandi canal from Talwara to Balachaur an additional area of 29640 hectare will be brought under irrigation. Besides, 1800 deep tubewells are being energized in the Kandi area for irrigation purposes.

84800 hectare area is affected by water logging out of total area of 263929 Ha of three districts Ferozepur, Mukatsar and Faridkot. The impact of high water table in the southern part of state has been reduced with the construction of new drains and the maintenance of existing 8000 km of drains. Besides 1800 km of flood protection embankments and about 3800 river training works have also been completed. Installation of shallow tubewell along Sirhind Feeder in the most critical area also helped arresting the seepage from the canal. In order to arrest the menace of water logging in Ferozepur, Faridkot and Mukatsar districts Rajasthan Canal and Sirhind Feeder are being relined with an approximate cost of Rs. 1440 crore under AIBP. The central Punjab faces water depletion in 112 blocks (70%) out of 141 blocks declared dark.

POWER

The present generation capacity of Punjab is 6841 MW, whereas peak unrestricted demand is about 9000 MW. There is a shortfall of 30% of peak demand. The construction of Bhakra Nangal Complex including Bhakra Dam, Bhakra Main line, Nangal Hydrel Channel, Ganguwal and Kotla Power House, Harike Barrage, Sirhind Feeder, remodelling of Madhopur Headwork into barrage, etc., and Beas Dam at Pong have been some of the major Irrigation and Hydroelectric Projects which have played a significant role in enhancing the irrigation and power potential of the State. Madhopur Beas Link was constructed to transfer surplus water of Ravi to Beas. A similar Beas-Satluj Link Project envisages the utilisation of the Beas water for the production of electricity at slapper and then transferring this water to Gobind Sagar lake. The Mukerian and Anandpur Sahib Hydroelectric projects are two important irrigation and power projects.

All the four units of Ranjit Sagar Dam (4 x 150 MW) have been commissioned successfully. Annual generation from this project shall be 2,100 MUs out of which 4.6 per cent of energy generated shall be supplied to Himachal Pradesh and 20 per cent energy generated shall be supplied to J&K at genuine cost. By the completion of this dam, water of all three rivers allocated to Punjab under Indus Water Treaty will be harnessed. About Rs 500 crore per annum has started accruing. Moreover this project is likely to cover its own cost by the next four or five years. Four new thermal Power Plants are being setup in the State namely Talwandi Sabho (1980 MW) in Bathinda district, Rajpura (1320 MW) in Patiala district, Gidderbaha (2640 MW) in Mukatsar district and Goindwal Sahib (540 MW) in Tarn Taran district.

PEDA

Punjab Energy Development Agency (PEDA) has installed about 200, 2HP Solar Photovoltaic Water Pump Sets for irrigation purposes in the state. 16 Mini Hydrel

(15.85 MW) and 28 Micro Hydel (35 MW) Projects have been commissioned on BOO basis. PEDA has also commissioned Rs. 4.5 crore, 200 kwp Solar Photovoltaic Grid Interactive Power Plant at village Khatkar Kalan, Distt. Shahid Bhagat Singh Nagar, and 218.65 MW Biomass/Bagasse based cogeneration power projects.

Punjab Energy Development Agency being the state designated agency for implementation of Energy Conservation Act 2001 in the state of Punjab, has initiated activities such as publicity and awareness of Energy Conservation/energy efficiency through print/electronic media, energy audit of building and industries, demo projects of energy efficiency in Municipal street lighting and water pumping, mandatory measure announcements, promotion of CFL/energy efficient lighting in domestic sector.

TRANSPORT

Roads : Public Works Department (Building and Roads) has been responsible for roads, bridges and buildings. The total road network length is 63833 km., consisting of 1739 km National Highways and 1462 km State Highways, 5968 km Major and other District Roads, 45000 km Rural Link Roads, 8130 km Urban Roads, 1534 km Project Roads. Out of total 3400.02 km rural roads, new construction of 815.16 km and upgradation of 2584.86 km under PMGSY has been completed.

Aviation : There are three Civil Aviation Clubs at Ludhiana, Patiala and Amritsar. There is a domestic Airport at Chandigarh, an International Airport at Rajasansi (Amritsar) and two Aerodromes at Patiala and Ludhiana (Sahnewal). Two Aviation Clubs are coming up at Faridkot and Talwandi Sabo.

FAIRS AND FESTIVALS

Besides festivals of Dussehra, Diwali, Holi, other important festivals/fairs/melas are Maghi Mela at Mukatsar, Rural Sports at Kila Raipur, Basant at Patiala, Holla Mohalla at Anandpur Sahib, Baisakhi at Talwandi Saboo, Urs at Rauza Sharif at Sirhind, Chappar Mela at Chappar, Skeikh Farid Agam Purb at Faridkot, Ram Tirath at Village Ram Tirath, Shaheedi Jor Mela at Sirhind, Harballah Sangeet Sammelan Baba Sodal at Jalandhar. In addition to above Fairs and Festivals three heritage festivals at Amritsar, Patiala, Kapurthala are also celebrated every year and are very popular among the tourists.

TOURISM

The State has a large number of places of tourist interest some of which include Golden Temple, Durgiana Mandir, Jallianwala Bagh and the Wagah Border in Amritsar, Takht Sri Kesgarh Sahib and Khalsa Heritage Complex at Anandpur Sahib, Bhakra Dam, Qila Androon, Moti Bagh Palace and Chattbir Zoo at Patiala, Wetland at Harike Pattan, Sanghol (district Fatehgarh Sahib) and Rupnagar archaeological Museum at Rupnagar, Shaheed Bhagat Singh Memorial at Village Khatkar Kalan, SBS Nagar for archaeological importance, Mughal Complex at Aam Khas Bagh, Rauza Sharif of Sheikh Ahmed at Graves of Afghan Rulers at Sirhind and Sodal Temple at Jalandhar, commemorative of Maharishi Balmiki Heritage.

To meet the requirement of trained manpower in tourism Industry and enhancement of employment generation the State Government has introduced the Hospitality courses in Schools, Colleges. LT.Is and Polytechnics.

In Rural areas, the scheme of Farm Tourism has been launched to provide better opportunities of employment with the assistance of District Administration. Up till now 23 farm houses have been registered under Diamond/Gold/Silver category. Besides this, to explore the resources of the State, the project of Heritage Village is being set up at Guru Nanak Dev University, Amritsar with an estimated cost of Rs 22.00 crore. Quila Gobind Garh Fort, Amritsar which has been handed over to the State Government by the Army, is being renovated and conserved to be opened for general public. The Department of Tourism, Punjab has got prepared Tourism Master plan from the UNWTO.

GOVERNMENT

<i>Governor</i>	: Shri Shivaji Patil	<i>Chief Secretary</i>	: Shri Subodh Chandra Agrawal
<i>Chief Minister</i>	: Sardar Prakash Singh Badal	<i>Jurisdiction of High Court</i>	: Punjab, Haryana and Chandigarh

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population (P)	Headquarters
1.	Amritsar	5,075	30,96,077	Amritsar
2.	Bhatinda	3,377	11,83,295	Bathinda
3.	Faridkot	1,472	5,50,892	Faridkot
4.	Fatehgarh Sahib	1,180	5,38,041	Fathegarh Sahib
5.	Firozpur	5,865	17,46,107	Firozpur
6.	Gurdaspur	3,570	21,04,011	Gurdaspur
7.	Hoshiarpur	3,310	14,80,376	Hoshiarpur
8.	Jalandhar	2,658	19,62,700	Jalandhar
9.	Kapurthala	1,646	7,54,521	Kapurthala
10.	Ludhiana	3,744	30,32,831	Ludhiana
11.	Mansa	2,174	68,87,558	Mansa
12.	Moga	1,672	8,94,854	Moga
13.	Muktsar	2,596	7,77,493	Muktsar
14.	Nawan Shehar	1,258	5,87,468	Nawan Shehar
15.	Patiala	3,627	18,44,934	Patiala
16.	Roop Nagar	2,117	11,16,108	Roop Nagar
17.	S.A.S. Nagar	1,093	6,98,317	Roop Nagar
18.	S.B.S. Nagar	1,267	5,87,468	Roop Nagar
19.	Sangrur	5,021	20,00,173	Sangrur
20.	Tarn Taran	2,449	9,39,057	-

RAJASTHAN

<i>Area</i> : 3,42,239 sq km	<i>Population</i> : 5,65,07,188
<i>Capital</i> : Jaipur	<i>Principal Languages</i> : Hindi and Rajasthani

HISTORY AND GEOGRAPHY

Rajasthan, the largest State in India area-wise prior to Independence was known as Rajputana. The Rajputs, a martial community, ruled over this area for centuries.

The history of Rajasthan dates back to the pre-historic times. Around 3,000 and 1,000 BC, it had a culture akin to that of the Indus Valley civilisation. The Chauhans dominated Rajput affairs from seventh century and by 12th century they had become an imperial power. After the Chauhans, the Guhilots of Mewar controlled the destiny of the warring tribes. Besides Mewar, the other historically prominent states were Marwar, Jaipur, Bundi, Kota, Bharatpur and Alwar. Other states were only offshoots of these. All these states accepted the British Treaty of Subordinate Alliance in 1818 protecting the interest of the princes. This naturally left the people discontented.

After the revolt of 1857, the people united themselves under the leadership of Mahatma Gandhi to contribute to the freedom movement. With the introduction of provincial autonomy in 1935 in British India, an agitation for civil liberties and political rights became stronger in Rajasthan. The process of uniting scattered states commenced from 1948 to 1956 when the States Reorganisation Act was promulgated. First came Matsya Union (1948) consisting of a fraction of states, then, slowly and gradually other states merged with this Union. By 1949, major states like Bikaner, Jaipur, Jodhpur and Jaisalmer joined this Union making it the United State of Greater Rajasthan. Ultimately in 1958, the present State of Rajasthan formally came into being, with Ajmer state, the Abu Road Taluka and Sunel Tappa joining it.

The entire western flank of the state borders with Pakistan, while Punjab, Haryana, Uttar Pradesh and Madhya Pradesh bound Rajasthan in north-east, south-east and Gujarat in south-west.

AGRICULTURE

Total cultivable area in the State is 214.17 lakh hectare (2009-2010). The estimated food grain production is 118.33 lakh tonne (2009-10). Principal crops cultivated in the State are rice, barley, jowar, millet, maize, gram, wheat, oilseeds, pulses, cotton and tobacco. Cultivation of vegetable and citrus fruits such as orange and malta has also picked up over the last few years. Other crops are red chillies, mustard, cumin seeds, fenugreek *methi* and asfoetida *hing*.

INDUSTRY AND MINERALS

Endowed with a rich culture, Rajasthan is also rich in minerals and is fast emerging on the industrial scenario of the country. Some of the important Central undertakings are Hindustan Zinc Smelter Plant at Devari (Udaipur), Chanderia (Chittorgarh), Hindustan Copper Plant at Khetri Nagar (Jhunjhunu), Hindustan Salt Ltd. Sambhar (Jaipur), HMT Ltd. Ajmer, and Precision Instrument Factory at Kota. Small-scale industrial units numbering 3.35 lakh with a capital investment of Rs. 10854.75 crore provide employment potential to about 13.96 lakh persons in the State as in March 2010. Major industries are textiles and woollens, Engineering goods, Electronic items, Automobile, Food Processing, Gems and Jewellery, Cement, Marble slabs and tiles, glass, Oxygen, Zinc, fertilizers, railway wagons, ball bearings, water and electricity

metres, sulphuric acid, handicraft items, television sets, synthetic yarn, Ceramic, Insulator, Stainless steel, Re-rolling, Steel Foundry and insulating bricks. Besides, precious and semi-precious stones, caustic soda, calcium carbide, nylon and tyres, etc. are other important industrial units.

Rajasthan has rich deposits of zinc concentrates, emerald, garnet, gypsum, silver, asbestos, felspar and mica. Export Promotion Industrial Parks have been established and made operational at Sitapura (Jaipur), Boranada (Jodhpur) and Nimrana (Alwar). Inland Container Depots have established in Jaipur. Bhilwara, Jodhpur, and Bhiwadi (Alwar) to promote the exporters. Special Economic Zone have been established in Jaipur and Jodhpur, and Multipurpose special Economic Zone "Mahendra World City" has been established in PPP model at Jaipur.

IRRIGATION AND POWER

By the end of March 2009 irrigation potential of 36.46 lakh hectare was created in the state through various major, medium and minor irrigation projects, and additional irrigation potential of 58,067 hectare (excluding IGNP & CAD) had been created. The installed power capacity in the State has become 7716.63 MW upto December 2009 of which 4820.30 Mw is produced from State-owned projects, 1018.15 MW from collaboration projects and 1878.18 MW from the allocation from Central power generating stations.

TRANSPORT

Roads: The total length of roads was 1,87,810 km as in December 2010.

Railways: Jodhpur, Jaipur, Bikaner, Kota, Sawai Madhopur and Bharatpur are main rail junctions of State.

Aviation: Regular air services connect Jaipur, Jodhpur and Udaipur with Delhi and Mumbai.

FESTIVALS

Rajasthan is a land of festivals and fairs. Besides the national festivals of Holi, Deepawali, Vijayadashmi, Christmas, etc., birth anniversaries of gods and goddesses, saintly figures, folk heroes and heroines are celebrated. Important fairs are Teej, Gangaur (Jaipur), annual Urs of Ajmer Sharif and Galiakot, tribal Kumbh of Beneshwar (Dungarpur), Mahaveer fair at Shrimahavirji in Sawai Madhopur, Ramdeora (Jaisalmer), Janbheswari fair (Mukam-Bikaner), Kartik Poornima and Cattle Fair (Pushkar-Ajmer) and Shyamji Fair(Sikar), etc.

TOURIST CENTRES

Jaipur, Jodhpur, Udaipur, Bikaner, Mount Abu, Sariska Tiger Sanctuary in Alwar, Keoladeo National Park at Bharatpur, Ajmer, Jaisalmer, Pali and Chittorgarh are important places of tourist interest in the State.

GOVERNMENT

<i>Governor</i>	: Shri Shivraj V. Patil	<i>Chief Secretary</i>	: Shri Salauddin Ahmed
<i>Chief Minister</i>	: Shri Ashok Gehlot	<i>Jurisdiction of</i>	: Rajasthan
		<i>High Court</i>	

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population	Headquarters
1.	Ajmer	8,481	21,80,526	Ajmer
2.	Alwar	8,380	29,90,862	Alwar
3.	Banswara	5,037	15,00,420	Banswara
4.	Barmer	28,387	19,63,758	Barmer
5.	Bharatpur	5,066	20,98,323	Bharatpur
6.	Bhilwara	10,455	20,09,516	Bhilwara
7.	Bikaner	27,244	16,73,562	Bikaner
8.	Bundi	5,550	9,61,269	Bundi
9.	Chittorgarh	10,856	18,02,656	Chittorgarh
10.	Churu	16,830	19,22,908	Churu
11.	Dholpur	3,034	9,82,815	Dholpur
12.	Dungarpur	3,770	11,07,037	Dungarpur
13.	Ganganagar	7,944	17,88,487	Ganganagar
14.	Jaipur	11,588	52,52,388	Jaipur
15.	Jaisalmer	38,401	5,07,999	Jaisalmer
16.	Jalore	10,640	14,48,486	Jalore
17.	Jhalawar	6,219	11,80,342	Jhalawar
18.	Jhunjhunu	5,928	19,13,099	Jhunjhunu
19.	Jodhpur	22,850	28,80,777	Jodhpur
20.	Kota	5,481	15,68,580	Kota
21.	Nagaur	17,718	27,73,894	Nagaur
22.	Pali	12,387	18,19,201	Pali
23.	Sawai Madhopur	5,043	11,16,031	Sawai Madhopur
24.	Sikar	7,732	22,87,229	Sikar
25.	Sirohi	5,136	8,50,756	Sirohi
26.	Tonk	7,194	12,11,343	Tonk
27.	Udaipur	12,511	26,32,210	Udaipur
28.	Dausa	2,950	13,16,790	Dausa
29.	Baran	6,955	10,22,568	Baran
30.	Rajsamand	4,768	9,86,269	Rajsamand
31.	Hanumangarh	12,690	15,17,390	Hanumangarh
32.	Karoli	5,041	12,05,613	Karoli
33.	Partapgarh	4,189	7,06,807	Partapgarh

SIKKIM

<i>Area</i> : 7,096 sq km	<i>Population</i> : 5,40,493 (2001 census)
<i>Capital</i> : Gangtok	<i>Principal Languages</i> : Lepcha, Bhutia and Nepali

HISTORY AND GEOGRAPHY

The early history of Sikkim starts in the 13th century with the signing of a blood-brotherhood treaty between the Lepcha Chief Thekong Tek and Tibetan prince Khye-Bumsa at Kabi Lungtsok in North Sikkim. This follows the historical visit of three revered Lamas to Yuksam in 1641 in West Sikkim where they consecrated Phuntsog Namgyal, a sixth generation descendant of Khye-Humsa as the first Chogyal of Sikkim, thus heralding the beginning of the Namgyal dynasty in Sikkim. With the march of history, events in Sikkim saw the process of democratisation and became an integral part of the Indian Union in 1975. Sikkim, the land blessed by Guru Padmasambhava during his sojourn to Tibet in 8th century, are inhabited by people from different communities and live in total harmony. Sikkim is perhaps the most peaceful State of the Indian Union to promote communal harmony and human relations, a feat which is much expected in a plural society like India.

Sikkim is a small hilly state, bounded by vast stretches of Tibetan Autonomous Region in the north, Kingdom of Bhutan in the east, Nepal in the west and state of West Bengal in the south. The State has a total area of 7,096 sq km and is stretched over 112 km from north to south and 64 km from east to west. It lies in the North-Eastern Himalayas between 27 degree 00'46'' to 28 degree 07'48'' North Latitude and 88 degree 00'58'' to 88 degree 55'25'' East Longitude.

The world's third highest mountain, Khangchendzonga, is regarded as the guardian deity of Sikkim. Sikkim is one of the 18 biodiversity hotspots in the world. More than 5000 species of angiosperms are found in the State, nearly one third of the total species of angiosperm found in the country. There are over 4000 species of flowering plants, 300 species of ferns and algies, over 500 species of orchids, atleast 36 species of Rhododendrons, 40 species of oak, 40 species of primulas and bamboos, about 150 species of mammals, 500 to 600 species of birds, over 400 species of butterflies and moths and many species of reptiles in the State. Rare blue sheep, Tibetan mastiff, yaks and red pandas are found here.

TOURISM

Sikkim is famous for its lush green vegetation, forest, scenic valleys and majestic mountains and a range of rich and magnificent cultural heritage and peace loving people who provide a safe haven for tourists. The State Government supports eco-friendly and pilgrimage tourism and accordingly have provided facilities to enable visitors to enjoy a first-hand experience of the rich heritage and lifestyle of Sikkim.

The premier monastery of Sikkim is Pemayantshe in West Sikkim. Apart from this there is Tashiding Monastery in West Sikkim, which is considered the holiest of all the monasteries in Sikkim. The most ancient monastery of Sikkim is in Yuksom, called the Drubdi monastery. It was the personal hermitage of Lhatsun Chenpo (Patron Saint of Sikkim), and was possibly built in 1700 AD. Some of the other monasteries are Phodong, Phensang, Rumtek, Ngadak, Tolung, Ahlay, Tsuklakhang, Ralong, Lachen, Enchey and others. Among the Hindu temples, the best known is the Thakurbari, in the heart of Gangtok. There are Churches, Gurudwaras and Mosques.

FESTIVALS

Sikkim's population comprises the three principal ethnic communities of the Bhutias, Lepchas and the Nepalese. Maghey Sankranti, Durga Puja, Laxmi Puja and Chaite Dassai/Ram Navami Dassai, Tyohar, Sonam Losoong, Namsoog, Tendong Lho Rum Faat (Worship of Mt. Tendong), Losar (Tibetan New Year) are the major

festivals. The other festivals include Sakewa (Rai community), Tamu Lochar (Gurung), Sonam Lochar (Tamang) and Barahimizong (Mangar).

AGRICULTURE

Agriculture is the mainstay of majority of the populace of Sikkim. The economy of the state is linked with agriculture that serves as the source of livelihood and economic security of more than 64% of the population. The total agriculture land holding in Sikkim is estimated to be 109,000 Ha, i.e. around 15% of total geographical area. The net area sown is estimated to be 78,300 Ha (Agri Census 2000-2001). Farming practice in Sikkim is integrated in nature. Maize, rice, wheat, potato, large cardamom, ginger and orange are the principle crops. Sikkim has the largest area and highest production of cardamom in India. Ginger, potato, orange and off-season vegetables are the cash crops of Sikkim.

INDUSTRY

Though Sikkim is a tiny Himalayan State, the Government and its people are very conscious about the environment and therefore have paid priority for setting up eco-friendly industries and the thrust areas are Agro-Horticulture and Floriculture based, Animal Husbandry and Dairy Development, Handloom & Handicrafts; Tourism, Precision Oriented high value low volume products, Hydel Power, Tea, Health, Education etc. After the announcement of North-East Industrial and Investment Policy, 2007, to North-East Region, including Sikkim w.e.f. 1 April 2007, a number of industrial units have been set up especially in pharmaceutical and other activities like packaging etc., besides the existing famous units like, Sikkim Jewels, Sikkim Time Corporation, Temi Tea Estate and Directorate of Handloom & Handicrafts. The Sikkim Industrial Development & Investment Corporation and NEDFI are providing long term loans to Micro and Medium industrial activities and other service oriented units.

Sikkim is considered as one of the best destinations for investment in the entire North East due to prevailing peace and tranquility, political stability and rule of law in the State.

IRRIGATION AND POWER

The Department of Irrigation and Flood Control has covered 3789.88 hectares agricultural land. Tenth Five year Plan targets to irrigate 5000 hectares of agricultural land.

The State has installed hydropower capacity of 40.7 MW, diesel generation capacity of 5 MW, and transformation capacity of 132/66 KV of 200 MVA and 66/11 KV of 207.5 MVA. Under PSU, NHPC has installed hydropower of 570 MW Hydropower potential of 4538 MW is awarded to private generating companies on BOOT format. Out of them power projects of 2015 MW are under construction. The total estimated seasonal hydro potential of the State is of 8000 MW.

TRANSPORT

Roads : Gangtok is connected by roads with Darjeeling district of West Bengal and also with all the district headquarters within Sikkim. The total road length of the state is 2,885.92 km which includes 873.40 km road maintained by the Border Roads Organisation.

Railways and Aviation : The closest railway stations are Siliguri (113) and New Jalpaiguri (125 km) connecting Kolkata, Delhi and other important cities and Bagdogra airport. Green field airport is being constructed at Pakyong in East Sikkim. There is a regular helicopter service between Gangtok and Bagdogra.

INFORMATION TECHNOLOGY

A new Information Technology Department has been created in the state and has prepared extensive projects to give top priority to this department. The newly created department has already launched a number of web sites on Sikkim and is now aiming for e-governance through the use of information tools. The official website of Sikkim hosted and maintained by the Department of Information Technology, Government of Sikkim is www.sikkimgovt.gov.in

GOVERNMENT

<i>Governor</i>	: Shri Balmiki Prasad Singh	<i>Chief Secretary</i>	: Shri T.T. Dorji
<i>Chief Minister</i>	: Shri Pawan Kumar Chamling	<i>Jurisdiction of High Court</i>	: Sikkim

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population	Headquarters
1.	East	954	1,78,452	Gangtok
2.	North	4,226	11,240	Mangan
3.	South	750	98,604	Namchi
4.	West	1,166	98,161	Gyalshing

TAMILNADU

<i>Area</i>	: 1,30,058 sq km	<i>Population</i>	: 6,24,05,679
<i>Capital</i>	: Chennai	<i>Principal Language</i>	: Tamil

HISTORY AND GEOGRAPHY

Tamil Nadu has a hoary antiquity. Though early *sangam* classics throw historical references it is only from the Pallavas we pass to recorded history.

South India had remained under the hegemony of the Cholas, the Cheras and the Pandyas for centuries. The Pallavas held supremacy from about the second quarter of the fourth century AD. They were the originators of the famous Dravidian style of temple architecture. The last Pallava ruler was Aparajita in whose reign the later Cholas under Vijayalaya and Aditya asserted themselves by about the 10th century. At the end of the 11th century, Tamil Nadu was ruled by several dynasties like the Chalukyas, Cholas and Pandyas. In the two centuries that followed, the imperial Cholas gained paramouncy over South India.

Muslims gradually strengthened their position, which led to the establishment of the Bahamani Sultanate, by the middle of the 14th century. At the same time, the Vijayanagar Kingdom quickly consolidated itself and extended its sway over the

whole of South India and at the close of the century, Vijayanagar became the supreme power in South. However, it crumbled at the battle of Talikota in 1564 to the confederate forces of the Deccan Sultans.

Even during the period of the tumultuous confusion that followed the battle of Talikota, European commercial interest had appeared as rivals in the area of South India. The Portuguese, the Dutch, the French and the English came in quick succession and established trading centres known as 'Factories.' East India Company which had established their factory at Masulipatnam, now in Andhra Pradesh, in 1611 gradually annexed territories by encouraging enmity among the native rulers. Tamil Nadu was one of the first of British settlements in India. The State is the successor to the old Madras Presidency which in 1901 covered the bulk of the southern peninsula. The composite Madras State was later reorganised and the present Tamil Nadu was formed.

Tamil Nadu is bounded on north by Andhra Pradesh and Karnataka, on west by Kerala, on east by the Bay of Bengal and on south by the Indian Ocean.

AGRICULTURE

Agriculture is the major occupation in Tamil Nadu. The total cultivated area in the State was 58.15 lakhs hectare. The principal food crops include paddy, millets and pulses. Commercial crops include sugarcane, cotton, sunflower, coconut, cashew, chillies, gingelly and groundnut. Plantation crops are tea, coffee, cardamom and rubber. Major forest produces are timber, sandalwood, pulp wood and fuel wood. Tamil Nadu occupies a premier position in the production and extensive application of bio-fertilizers. Efforts are on to improve farming technologies so as to increase yields in the low rainfall areas of the State.

INDUSTRY AND MINERALS

Major Industries in the State are cotton, heavy commercial vehicles, auto components, railway coaches, power pumps, leather tanning industries, cement, sugar, paper, automobiles and safety matches.

Knowledge based industries like I.T. and Biotechnology have become the thrust area in the industrial scene in Tamil Nadu. TIDEL, a software technology park, has been established in Tharamani, Chennai. Top I.T. and Telecom companies such as Nokia, Motorola, Foxcon, Flextronic and Dell have commenced production.

Global auto majors Hyundai Motors, Ford, Hindustan Motors and Mitsubishi have commenced production plants. Ashok Leyland and TAFE have set up expansion plants in Chennai.

Main mineral wealth of the state are granite, lignite and limestone. The state is an important exporter of tanned skin and leather goods, yarn, tea, coffee, spices, engineering goods, tobacco, handicrafts and black granite. Tamil Nadu contributes to 60 per cent of the tannery industry in India.

IRRIGATION

Important irrigation schemes and modernisation of existing Periyar Vaigai System, Palar Basin System and Parambikulam-Aliyar System besides the minor system in Vellar, Pennayar, Araniyar Amaravathi, Chithar basins totalling an extent of six lakh acres of existing ayacut in Tamil Nadu have been benefited by implementing the 'System Improvement and Farmers Turnover Projects' executed with assistance from

World Bank. The World Bank has also approved Rs 2,547 crore for the Irrigated Agriculture Modernisation and Water Bodies Restoration Management Project. The Project covers about 6,17 lakh ha. in 63 selected sub-basins throughout the state. Nine irrigation projects which were just started and going on a slow progress have been speeded up with adequate fund and guidance for early completion. The major irrigation system covering one-third of irrigated extent in Tamil Nadu, namely tank irrigation system has been given due regard for development under WRCP and 620 tanks maintained by Public Works Department falling under Palar, Vaigai and Tamaraparani Basins have been taken up for rehabilitation and improvement. This project is nearing completion to the maximum satisfaction of the farmers. This State has become the pioneer State to implement the system of 'River basin management' by an individual body consisting of officials and farmers besides various representatives of the basin.

POWER

The total installed capacity for electricity in the State is 10,214 MW. The installed capacity of State Sector is 5,690 MW and that of Private Sector is 1,180 MW. Apart from this 2825 MW is available as share from Central Sector, 305 MW is obtained from external assistance and 214 MW from Captive Power Plants. Apart from this wind mills from the private sector provide 4270 MW and 466.10 MW is received from co-generation plants and 109.55 MW from Bio-mass plants.

There are 1259 sub stations, 1.64 lakh ckt km of Extra High Tension/High Tension lines, 5.26 lakh km of low tension lines, 1.86 lakh distribution transformers and 203.87 lakh service connections.

TRANSPORT

Roads : The length of roads network in Tamil Nadu is 61,641 km.

Railways : The total length of railways is 3,927 km and the main junction stations are Chennai, Madurai, Tiruchirapalli, Coimbatore, Tirunelveli, Salem, Erode and Arakkonam.

Aviation : Chennai being the international airport in the southern region, is the main centre of airline routes. Besides, there are airports at Tiruchirapalli, Madurai, Coimbatore and Salem.

Ports : Major ports in the State are Chennai, Egmore and Tuticorin. There are seven other minor ports including Cuddalore and Nagapattinam.

FESTIVALS

Pongal is the harvest festival celebrated by the farmers in January to worship the sun, the earth and the cattle as thanks giving for a bounteous harvest. *Pongal* is followed by the *Jallikattu*-Bull fight, Tamil Nadu style in some parts of southern Tamil Nadu. Alanganallur in Tamil Nadu is internationally famous for *Jallikattu*-Bull fight. *Chithirai* festival, Madurai: Madurai brings a spectacular re-enactment of the marriage of the Pandiyan princess Meenakshi to Lord Sundareswarar. *Adipperukku* is a festival celebrated on the 18th day of Tamil month, *Adi*, on the banks of rivers. It marks the commencement of new farming operations. A truly secular festival - where devotees flock to the shrine of saint Quadirwali. One of the descendants of the Saint is chosen as a *Peer* or spiritual leader and is honoured with offerings. On the tenth day of the festival, the Saint's tomb is anointed with sandalwood and later the holy sandal

paste is distributed to everyone. *Velankanni* festival : Wondrous legends surround the church, the most famous being that of the ship wrecked Portuguese sailors, who in the 16th century, vowed to build a great shrine for the Virgin Mary, for saving their lives in a terrible storm. The *Velankanni* festival attracts thousands, clad in orange robes to the sacred spot where the ship landed. Equally famous are the Virgin Mary's miraculous healing powers - earning for the church the name 'Our Lady of Lourdes of the East'. *Navarathiri* festival : Literally, this means the festival of 'nine nights' taking unique and different forms in different states of India - all to propitiate the goddess *Sakthi*, for power, wealth and knowledge. Music Festival : In December Chennai celebrates her priceless heritage of *carnatic* music and dance to present a galaxy of star artistes, old and new.

TOURIST CENTRES

Chennai, Mamallapuram, Poompuhar, Kancheepuram, Kumbakonam, Dharasuram, Chidambaram, Tiruvannamalai, Srirangam, Madurai, Rameswaram, Tirunelveli, Kanniyakumari, Thanjavur, Velankanni, Nagoor, Chithannavasal, Kazhugumalai (monument centres), Courtallam, Hogenakkal, Papanasam, Suruli (water-falls), Ooty (Udhagamandalam), Kodaikanal, Yercaud, Elagiri Kolli Hills (hill stations), Guindy (Chennai), Mudumalai, Annamalai, Mundanthurai, Kalakad (wild life sanctuaries), Vedanthangal and Point Calimere (bird sanctuaries), Arignar Anna Zoological Park, near Chennai, are some of the places of tourist interest.

GOVERNMENT

<i>Governor</i>	: Shri S.S. Barnala	<i>Chief Secretary</i>	: Smt. S. Malathi
<i>Chief Minister</i>	: Dr. K. M. Karunanidhi	<i>Jurisdiction of High Court</i>	: Tamil Nadu and Puducherry

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population	Headquarters
1.	Chennai	174	43,43,645	Chennai
2.	Kancheepuram	4,307	28,77,468	Kancheepuram
3.	Thiruvallur	3,550	27,54,756	Thiruvallur
4.	Vellore	6,077	34,77,317	Vellore
5.	Thiruvannamalai	6,190	21,86,125	Thiruvannamalai
6.	Cuddalore	3,706	22,85,395	Cuddalore
7.	Villupuram	7,190	29,60,373	Villupuram
8.	Salem	5,425	30,16,346	Salem
9.	Namakkal	3,404	14,93,462	Namakkal
10.	Dharmapuri	9,622	28,56,300	Dharmapuri
11.	Pudukottai	4,651	14,59,601	Pudukottai
12.	Erode	8,209	25,81,500	Erode
13.	The Nilgiris	2,549	7,62,141	Udhagamandalam
14.	Coimbatore	7,469	42,71,856	Coimbatore
15.	Tiruchirappalli	4,511	24,18,366	Tiruchirappalli

16.	Karur	2,901	9,35,686	Karur
17.	Perambalur	1,750	4,93,646	Perambalur
18.	Ariyalur	1,944	6,95,524	Ariyalur
19.	Thanjavur	3,476	22,16,138	Thanjavur
20.	Nagapattinam	2,417	14,88,839	Nagapattinam
21.	Thiruvavur	2,377	11,69,474	Thiruvavur
22.	Madurai	3,696	25,78,201	Madurai
23.	Theni	2,869	10,93,950	Theni
24.	Dindigul	6,058	19,23,014	Dindigul
25.	Ramanathapuram	4,175	11,87,604	Ramanathapuram
26.	Sivagangai	4,143	11,55,356	Sivagangai
27.	Virudhunagar	4,283	17,51,301	Virudhunagar
28.	Tirunelveli	6,810	27,23,988	Tirunelveli
29.	Thoothukudi	4,621	15,72,273	Thoothukudi
30.	Kanniyakumari	1,684	16,76,034	Nagercoil
31.	Tiruppur	4719.85	19,17,033	Tiruppur

TRIPURA

Area : 10,491.69 sq km

Population : 31,99,203

Capital : Agartala

Principal Languages : Bengali and
Kokborak

HISTORY AND GEOGRAPHY

Tripura has its unique tribal culture and a fascinating folklore. The history of Tripura can be learnt from '*Rajmala*' chronicles of king Tripura and writings of historians. There are references of Tripura even in the *Mahabharata* and the *Puranas*. According to '*Rajmala*', the rulers were known by the surname '*Fa*' meaning '*father*'. There is a reference to rulers of Bengal helping Tripura kings in the 14th century. Kings of Tripura had to face frequent Mughal invasions with varying successes. They defeated the Sultans of Bengal in several battles. Nineteenth century marked the beginning of the modern era in Tripura when king Maharaja Bir Chandra Kishore Manikya Bahadur modelled his administrative set-up on the British India pattern and brought in various reforms. His successors ruled Tripura till 15 October 1949 when the state merged with the Indian Union. Initially, a part 'C' state, it became a centrally administered territory with the re-organisation of states in 1956. In 1972, Tripura attained the status of a full-fledged state.

Tripura is strategically situated between the river valleys of Myanmar and Bangladesh. Encircled almost on three sides by Bangladesh, it is linked with Assam and Mizoram in the north-east.

IRRIGATION

Tripura is a predominantly hilly state having geographical area of 10,49,169 hectare. Amid the undulating terrain, out of the cultivable 2,80,000 hectare an area of 93,359 hectares of land which is 79.97% of irrigation area and 33.34% of cultivable land has been brought under irrigation coverage through Medium Irrigation, Lift Irrigation,

Diversion, Deep Tube Well, Shallow Tube Wells etc. The nature of schemes completed and commissioned by PWD (Water Resource) include 1411 nos. Diversion Schemes and 166 nos. Irrigation Deep Tube Wells. The three ongoing medium irrigation projects (Gumati, Khowai and Manu) have also been partially commissioned and expected to be complete by 2009-10.

POWER

The present highest peak demand of power in the State is around 162 MW. Power available now from own generating stations is around 80 MW. About 40 MW power is being imported from the State's allocated share from the Central Sector power generating stations in the NE-Region. It is estimated that the peak demand during 2012 will be around 396 MW considering the demand arising out of Rajiv Gandhi Viduyutikaran Yojana (RGVY) and Industrialization in the State.

New Power Projects in Tripura

1. 1 x 21 MW GT Project at Baramura, West Tripura under NEC, Implementing Agency : TSECL, Work is in progress, completion schedule :- December 2009.
2. OTPC Power project (740 MW) at Palatana, Udaipur, Tripura South : Tripura's share is 200 MW. Likely to be commissioned in 2011-12.
3. Monachak G.T. Project (104 MW) : Implementing Agency : NEEPCO, likely to be commissioned in 2010-11.

TRANSPORT

Roads : The total length of roads in Tripura is 1,997 km of which major district roads constitute 90 km. Other district roads are 1,218 km and State Highway is 689 km.

Railways : The work for Rail line up to Agartala as a part of National Project has been completed. The project for extension of Rail Line from Agartala to Sabroom has been approved by Central Government.

Aviation : The main Airport is at Agartala.

TOURISM

The important tourist centres are :

(a) West-south Tripura Tourism Circuit: (i) Agartala (ii) Kamalsagar (iii) Sepahijala (iv) Neermahal (v) Udaipur (vi) Pilak (vii) Mahamuni

(b) West-North Tripura Tourism Circuit: (i) Agartala (ii) Unokuti (iii) Jampui Hill.

FESTIVALS

a) Tourism Festival: (i) Tourism Festival at Vanghmun, (ii) Unokuti Tourism Festival, (iii) Neermahal Tourism Festival, (iv) Pilak Tourism Festival.

b) Cultural Religious Festival: (i) Makar Sankranti at Thirthamukh and Unokoti, (ii) Holi, (iii) Ashokashtami at Unokoti, Brahmakunda (Mohanpur), (iv) Rash (v) Bengali New Year, (vi) Garia, Dhamail, Biju and Hozagiri Festival, (vii) Boat Race and Manasa Mangal Festival, (viii) Ker and Kharchi Festival, (ix) Durgapuja, (x) Diwali, (xi) Christmas at Jampui Hills, (xii) Budha Purnima, (xiii) Rabindra-Najrul-Sukanta Utsav, (xiv) Street Drama Festival, (xv) Chongpreng Utsav, (xvi) Khumpui Festival, (xvii) Wah Festival, (xviii) Folk Cultural Festival (Loka Utsav), (xix) Murasing Festival, (xx) Sanghati Festival, (xxi) Baishakhi Festival (Sabroom), etc, are celebrated annually.

GOVERNMENT

<i>Governor</i>	: Dr. D.Y. Patil	<i>Chief Secretary</i>	: Shri S.K. Panda
<i>Chief Minister</i>	: Shri Manik Sarkar	<i>Jurisdiction of High Court</i>	: Falls under Guwahati High Court Agartala Bench

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population	Headquarters
1.	North Tripura	2,820.63	5,90,913	Kailashahar
2.	South Tripura	2,151.77	7,67,440	Udaipur
3.	West Tripura	2,996.82	15,32,982	Agartala
4.	Dhalai	2,552.47	3,07,868	Ambassa

UTTARAKHAND

<i>Area</i>	: 53,484 sq km	<i>Population</i>	: 84,89,349
<i>Capital</i>	: Dehradun	<i>Principal Languages</i>	: Hindi, English, Garhwali, Kumauni

HISTORY AND GEOGRAPHY

Uttarakhand finds mention in the ancient Hindu scriptures as Kedarkhand, Manaskhand and Himavant. The Kushanas, Kunindas, Kanishka, Samudra Gupta, the Pauravas, Katuris, Palas, the Chandras and Panwars and the British have ruled it in turns. It is often called the Land of the Gods (*Dev Bhoomi*) because of its various holy places and abundant shrines. The hilly regions of Uttarakhand offer pristine landscapes to the tourists.

The State of Uttarakhand was earlier a part of the United Province of Agra and Awadh which came into existence in 1902. In 1935, the name of State was shortened to the United Province. In January 1950, the United Province was renamed as Uttar Pradesh and Uttaranchal remained a part of Uttar Pradesh before it was carved out of Uttar Pradesh on 9 November 2000. It is incepted as the 27th State of India.

Located in the foothills of the Himalayas, the State has international boundaries with China (Tibet) in the north and Nepal in the east. On its north-west lies Himachal Pradesh while on the south is Uttar Pradesh.

AGRICULTURE

About 90 per cent of the population of Uttarakhand depends on agriculture. The total cultivated area in the State is 7,67,571 hectare.

INDUSTRY AND MINERALS

The State is rich in mineral deposits like limestone, marble, rock phosphate, dolomite, magnesite, copper greyphyte, gypsum, etc. The number of small-scale industries is 34,231 providing employment to 1,77,677 persons, with an investment of Rs 14,965.67 crore.

IRRIGATION AND ENERGY

Agricultural land under irrigation is 5,49,381 hectare. The State has excellent potential for hydropower generation. There are a number of hydro-electric projects on the rivers Yamuna, Bhagirathi, Bhilangana, Alaknanda, Mandakini, Saryu Gauri, Kosi and Kali generating electricity. Total hydropower potential approx. 25,450 MW. Projects allotted to various agencies 13,667 MW. Out of 15,761 villages, 15,241 villages have been electrified.

TRANSPORT

Roads: The total length of metalled roads in Uttarakhand is 29,939 km. The length of PWD roads is 22,623 km. The length of roads built by local bodies is 15,041 km.

Railways: The main railway stations are Dehradun, Hardwar, Roorkee, Kotdwar, Kashipur, Udham Singh Nagar, Haldwani, Ramnagar and Kathgodam.

Aviation: There are air strips at Jolly Grant (Dehradun), and Pantnagar (Udham Singh Nagar). Air strips at Naini-Seni (Pithoragarh), Gauchar (Chamoli) and Chinyalisaur (Uttarkashi) are under construction. From this year Pawan Hans Ltd., has started helicopter service from Rudraprayag to Kedarnath for pilgrims.

FESTIVALS

The world-famous *Kumbh Mela/Ardh Kumbh Mela* is held at Hardwar at every twelfth/sixth year interval. Other prominent fairs/festivals are : Devidhura Mela (Champawat), Purnagiri Mela (Champawat), Nanda Devi Mela (Almora), Gauchar Mela (Chamoli), Baisakhi (Uttarkashi), Magha Mela (Uttarkashi), Uttaraini Mela (Bageshwar), Vishu Mela (Jaunsar Bhabar), Peerane-Kaliyar (Roorkee), and Nanda Devi Raj Jat Yatra held every twelfth year.

TOURIST CENTRES

Prominent places of pilgrimage/tourist interests are Gangotri, Yamunotri, Badrinath, Kedarnath, Hardwar, Rishikesh, Hemkund Sahib, Nanakmatta, etc. Kailash Mansarovar Yatra can be performed through Kumaon region. The world-famous Valley of Flowers, Pindari Glacier, Roop Kund, Dayara Bugyal, Auli, and hill stations like Mussoorie, Dehradun, Chakrata, Nainital, Ranikhet, Bageshwar, Bhimtal, Kausani, Lansdowne etc. are the other tourist destinations.

GOVERNMENT

<i>Governor</i>	: Smt. Margaret Alwa	<i>Chief Secretary</i>	: Shri Subash Kumar
<i>Chief Minister</i>	: Dr. Ramesh Pokhriya "Nishank"	<i>Jurisdiction of High Court</i>	: Uttarakhand

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S. No.	District	Area (sq km)	Population	Headquarters
1.	Uttarkashi	8,016	2,95,013	Uttarkashi
2.	Chamoli	7,520	3,70,359	Gopeshwar
3.	Rudra Prayag	2,439	2,27,439	Rudra Prayag
4.	Tehri Garhwal	3,796	6,04,747	New Tehri

5.	Dehradun	3,088	12,82,143	Dehradun
6.	Pauri Garhwal	5,329	6,97,078	Pauri
7.	Pithoragarh	7,169	4,62,289	Pithoragarh
8.	Champawat	2,004	2,24,542	Champawat
9.	Almora	3,689	6,30,567	Almora
10.	Bageshwar	1,696	2,49,462	Bageshwar
11.	Nainital	3,422	7,62,909	Nainital
12.	Udhamsingh Nagar	3,055	12,35,614	Udhamsingh Ngr. (Rudrapur)
13.	Hardwar	2,360	14,47,187	Hardwar

UTTAR PRADESH

<i>Area</i>	: 2,40,928 sq km	<i>Population</i>	: 16,61,97,921
<i>Capital</i>	: Lucknow	<i>Principal Languages</i>	: Hindi and Urdu

HISTORY AND GEOGRAPHY

The history of Uttar Pradesh is very ancient and interesting. It is recognised in the later Vedic Age as Brahmarsa Desha or Madhya Desha. Many great sages of the Vedic times like Bhardwaja, Gautam, Yagyavalkya, Vashishtha, Vishwamitra and Valmiki flourished in this state. Several sacred books of the Aryans were also composed here. Two great epics of India, *Ramayana* and *Mahabharata*, appear to have been inspired by Uttar Pradesh.

In the sixth century BC Uttar Pradesh was associated with two new religions—Jainism and Buddhism. It was at Sarnath that Buddha preached his first sermon and laid the foundations of his order and it was in Kushinagar in Uttar Pradesh where Buddha breathed his last. Several centres in Uttar Pradesh like Ayodhya, Prayag, Varanasi and Mathura became reputed centres of learning. In the medieval period Uttar Pradesh passed under Muslim rule and led the way to new synthesis of Hindu and Islamic cultures. Ramananda and his Muslim disciple Kabir, Tulsidas, Surdas and many other intellectuals contributed to the growth of Hindi and other languages.

Uttar Pradesh preserved its intellectual excellence even under the British administration. The British combined Agra and Oudh into one province and called it United Provinces of Agra and Oudh. The name was shortened to the United Provinces in 1935. In January 1950 the United Provinces was renamed as Uttar Pradesh.

The State is bounded by Uttarakhand and Himachal Pradesh in the north, Haryana in the west, Madhya Pradesh in the south and Bihar in the east. Uttar Pradesh can be divided into two distinct regions (i) Southern Hills and (ii) Gangetic Plain.

AGRICULTURE

Agriculture is the main occupation of 66 per cent of the population of the state. The net cultivated area in the state is 164.17 lakh hectare. In the year 2007-08 the state produced 263.12 lakh metric tonnes of wheat, 118.84 lakh metric tonnes of rice, 16.27

lakh metric tonnes of pulses, 7.62 lakh metric tonnes of oilseeds and 1287.36 lakh tonnes sugar cane. Total foodgrains production during 2007-2008 was 430.32 lakh metric tonnes.

INDUSTRY AND MINERALS

In the year 2006-07 there were 6,12,338 small-scale industrial units involving a total investment of Rs. 7172 crore and employment opportunities for 2396 thousand persons which accelerated upto 6,45,640 small scale industries, involving a total investment of Rs. 9,219 crore ensuring employment opportunities to 2567 thousand persons. There were 68 textile units. There are thirty-two automobile units with an investment of Rs. 5,740 crore providing jobs to 20280 persons. About 73.20 lakh tonnes of sugar was produced in the state during the year 2007-08.

It is planned to develop 102 sectors of New Okhla Industrial Development Authority (NOIDA) by the year 2011. The Authority includes industrial sectors, housing sectors, group housing sectors, residential buildings, commercial assets and institutional sectors. Steps have been taken to develop other industrial areas in the state on the pattern of Noida and Greater Noida. A Software Technology Park has been set up in Kanpur while five more Software Parks are proposed to be set up.

Under the public sector, mining of limestone, magnesite, coal, rock phosphate, dolomite and silicon-sand is carried out. The bulk production of minor and some of the major minerals like limestone, silica-sand, magnesite, pyrophyllite and diaspore is mostly with the private sector. Important mineral based industries include large cement plants in Sonbhadra.

IRRIGATION AND POWER

UP Power Corporation, UP State Power Generation and UP Hydel Power Corporation had been formed by reorganising UP State Electricity Board on 14 January 2000. During 2001-02 the total installed capacity was 4659 MW, in 2006-07 it was 5011 MW which has now been raised upto 5077 MW. During 2001-02 the total power production was 226330 lakh KW and in the year 2006-07 it was 229692 which is at present 227099 during the year 2007-08. The total consumption of power during the year 2001-02 was 253302 lakh KW, in the year 2006-07 it was 345437 which was raised during the year 2007-08 to 375319.

Power is an important input to accelerate the process of economic growth. The installed capacity of re-organized Uttar Pradesh during Tenth Five Year Plan was 7821.82 MW. Only 56.6 per cent of 97135 villages were electrified and 7.88 lakh private tubewells were energized. At the time of inception the total installed capacity of UPSEB, including thermal and hydro, was 2,635 MW which has now been raised to 5414 MW (derated 5,885.75 MW).

An expenditure of Rs. 2,094.5256 crore was made to raise the irrigation potential to a level of 267.99 lakh hectare. It is estimated that the irrigation potential created in U.P. is 319.12 lakh hectare till the end of 2004-05. Out of this only 231.61 lakh hectare could be utilized. Irrigation potential of 329.30 lakh hectare was expected to be created in the year 2006-07 and the target for 2007-08 335 lakh hectare.

TRANSPORT

Roads : The total road length of PWD in the state is 146728 km. This includes 3820 km of national highways, 8391 km of state highways, 119726 of other district roads and 134517 km of rural roads.

Railways : Lucknow is the main junction of the northern network. Other important railway junctions are Agra, Kanpur, Allahabad, Mughalsarai, Jhansi, Moradabad, Varanasi, Tundla, Gorakhpur, Gonda, Faizabad, Bareilly and Sitapur.

Aviation : There are airports at Lucknow, Kanpur, Varanasi, Allahabad, Agra, Jhansi, Bareilly, Hindon (Ghaziabad), Gorakhpur, Sarsawa (Saharanpur) and Fursatganj (Rae-Bareilly).

FESTIVALS

The biggest congregation, perhaps of the world, Kumbha Mela is held at Allahabad every twelfth year and *Ardh kumbh Mela* every sixth year. Magh Mela is also held at Allahabad in January when the people come in large numbers to have a dip in the holy Sangam. Among other fairs is the fortnight long *Jhoola* fair of Mathura, Vrindavan and Ayodhya, when dolls are placed in gold and silver jhoolas or cradles. A dip in the Ganga on Kartik Poornamasi is supposed to be the holiest and there are big congregations at Garhmukteshwar, Soran, Rajghat, Kakora, Bithur, Kanpur, Allahabad, Varanasi and Ayodhya. A famous cattle fair is held at Bateswar in Agra district. Dewa in Barabanki district has become famous because of the Muslim saint Waris Ali Shah. Besides, important festivals of the Hindus, Muslims, etc., are widely celebrated in the state.

TOURIST CENTRES

Uttar Pradesh has varied attractions for all kinds of tourists. Besides ancient places of pilgrimage like Varanasi, Vindhyaachal, Ayodhya, Chitrakoot, Prayag, Naimisharanya, Mathura, Vrindavan, Dewa Sharief, Dargah of Sheikh Saleem Chisti in Fatehpur Sikri, Sarnath, Shrivasti, Kushinagar, Sankisa, Kampil, Piprahwa and Kaushambi, places like Agra, Ayodhya, Sarnath, Varanasi, Lucknow, Jhansi, Gorakhpur, Jaunpur, Kannauj, Mahoba, Devgarh, Bithur, and Vindhyaachal have rich treasures of Hindu and Islamic architecture and culture.

GOVERNMENT

<i>Governor</i>	: Shri B.L. Joshi	<i>Chief Secretary</i>	: Shri Atul Kumar Gupta
<i>Chief Minister</i>	: Kumari Mayawati	<i>Jurisdiction of High Court</i>	: Uttar Pradesh

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

Sl. No.	District	Area (sq km)	Population	Headquarters
1.	2	3	4	5
1.	Agra	4,027	36,20,436	Agra
2.	Aligarh	3,650	29,92,286	Aligarh
3.	Allahabad	5,482	49,36,105	Allahabad
4.	Azamgarh	4,054	39,39,916	Azamgarh
5.	Bahraich	4,420	23,81,072	Bahraich
6.	Balia	2,981	27,61,620	Balia
7.	Banda	4,460	15,37,334	Banda
8.	Barabanki	4,402	26,73,581	Barabanki

9.	Bareilli	4,120	36,18,589	Bareilli
10.	Basti	2,688	20,84,814	Basti
11.	Bijnore	4,561	31,31,619	Bijnore
12.	Badaun	5,168	30,69,426	Badaun
13.	Bulandshahar	4,352	29,13,122	Bulandshahar
14.	Deoria	2,538	27,12,650	Deoria
15.	Etah	4,446	27,90,410	Etah
16.	Etawah	2,311	13,38,871	Etawah
17.	Faizabad	2,341	20,88,928	Faizabad
18.	Ambedkar Nagar	2,350	20,26,876	Akbarpur
19.	Fatehpur	4,152	23,08,384	Fatehpur
20.	Farukhabad	2,181	15,70,408	Fatehgarh
21.	Gaziabad	1,148	32,90,586	Gaziabad
22.	Gautam Buddha Nagar	1,442	12,02,030	Noida
23.	Gazipur	3,377	30,37,582	Gazipur
24.	Gonda	4,003	27,65,586	Gonda
25.	Gorakhpur	3,321	37,69,456	Gorakhpur
26.	Hamirpur	4,282	10,43,724	Hamirpur
27.	Hardoi	5,986	33,98,306	Hardoi
28.	Jalaun	4,565	14,54,452	Orai
29.	Jaunpur	4,038	39,11,679	Jaunpur
30.	Jhansi	5,024	17,44,931	Jhansi
31.	Kanpur (Dehat)	3,021	15,63,336	Akbarpur Mati
32.	Kanpur (City)	3,155	41,67,999	Kanpur
33.	Lakhimpur Kheri	7,680	32,07,232	Kheri
34.	Lalitpur	5,039	9,77,734	Lalitpur
35.	Lucknow	2,528	36,47,834	Lucknow
36.	Mainpuri	2,760	15,96,718	Mainpuri
37.	Mathura	3,340	20,74,516	Mathura
38.	Meerut	2,590	29,97,361	Meerut
39.	Mirzapur	4,521	21,16,042	Mirzapur
40.	Moradabad	3,718	38,10,983	Moradabad
41.	Muzaffarnagar	4,008	35,43,362	Muzaffarnagar
42.	Pilibhit	3,499	16,45,183	Pilibhit
43.	Pratapgarh	3,717	27,31,174	Pratapgarh
44.	Raibareilli	4,609	28,72,335	Raibareilli
45.	Rampur	2,367	19,23,739	Rampur
46.	Jyotiba Phule Nagar	2,249	14,99,068	Jyotiba Phule Nagar
47.	Saharanpur	3,689	14,99,068	Saharanpur
48.	Shahjahanpur	4,575	25,47,855	Shahjahanpur
49.	Sitapur	5,743	36,19,661	Sitapur
50.	Unnao	4,558	27,00,324	Unnao
51.	Sultanpur	4,436	32,14,832	Sultanpur

52.	Varanasi	1,535	31,38,671	Varanasi
53.	Mau	1,713	18,53,997	Mau
54.	Siddharthnagar	2,895	20,40,085	Navgarh
55.	Firozabad	2,361	20,52,958	Firozabad
56.	Sonbhadra	6,788	14,63,519	Robertsganj
57.	Maharajganj	2,952	21,67,041	Maharajganj
58.	Sant Ravidas Nagar	1,015	13,53,705	Bhadohi
59.	Mahoba	2,884	7,08,447	Mahoba
60.	Hathras	1,840	13,36,031	Hathras
61.	Kaushambi	1,780	12,93,154	Kaushambi
62.	Kushinagar	2,906	28,93,196	Podraune
63.	Chandauli	2,541	16,43,251	Chandauli
64.	Balrampur	3,349	16,82,350	Balrampur
65.	Shrawasti	2,458	11,76,391	Shrawasti
66.	Chitrakoot	3,164	7,66,225	Chitrakoot
67.	Baghpat	1,321	11,63,991	Baghpat
68.	Kannauj	2,093	13,88,923	Kannauj
69.	Orraiya	2,015	11,79,993	Orraiya
70.	Sant Kabir Nagar	1,646	14,20,226	Khalilabad
71.	Kanshi Ram Nagar	-	92,485	Kanshi Ram Nagar
72.	Chattrapati Sahuji Maharaj Nagar	3,044	18,87,120	Gauriganj

WEST BENGAL

Area : 88,752 sq km

Population : 8,01,76,197

Capital : Kolkata

Principal Language : Bengali

HISTORY AND GEOGRAPHY

Bengal finds a coveted place even in pre-historic times. At the time of Alexander's invasion a powerful kingdom called Gangaridai ruled over Bengal. Ascendancy of the Guptas and the Mauryas had somewhat little effect on Bengal. Later Sasanka became King of Bengal and is said to have played an important role in north-eastern India in the early half of the seventh century. He was succeeded by Gopala, who founded the Pala dynasty, which ruled for centuries and had created a huge empire. The Palas were followed by the Sena dynasty which was ended by Muslim rulers from Delhi. Bengal was ruled by various Muslim rulers and governors till the Mughal period in sixteenth century.

After the Mughals, history of modern Bengal begins with the advent of European and English trading companies. Battle of Plassey in 1757 changed the course of history when the English first gained a strong foothold in Bengal and India. In 1905 it was partitioned to achieve some political returns but people's growing movement under the auspices of Congress led to the reunion in 1911. This triggered off hectic movement for freedom which culminated with Independence in 1947, and partition.

After 1947, the merger of native princely states began which ended with its final reorganisation in 1956 (as per Recommendations of the States Reorganisation Act, 1956) when some Bengali speaking areas of a neighbouring state were transferred to West Bengal.

The land frontiers of the State touch Bangladesh in the east and are separated from Nepal in the west, Bhutan lies in the north-east, while Sikkim is on the north. On the west are the states of Bihar and Jharkhand, while in the south lies Orissa, and the Bay of Bengal washes its southern frontiers.

AGRICULTURE

Agriculture plays a pivotal role in the State's economy and nearly three out of every four persons is directly or indirectly involved in agriculture.

INDUSTRY

The salient features of the State policy on industrial promotion and economic development are to welcome foreign technology and investment, private sector investment in power generation, improvement and upgradation of industrial infrastructure. The thrust areas are petrochemicals and downstream industries, electronics and information technology, iron and steel, metallurgical and engineering, textile, leather and leather products, food processing, medicinal plants, edible oil, vegetable processing and aquaculture.

In the recent years the flow of investment in the districts like Bankura, Midnapur, Burdwan and Purulia has been quite impressive.

The State Government has continued its effort for accelerating the process of industrialization with the State implementing 42 numbers of industrial Entrepreneur Memorandums (IEMs) with an additional employment generation of 4535 persons in the iron and steel sector.

Several companies like JSW Bengal, Bhusan Steel Limited, Jai Balaji, Videocon groups will set up integrated steel, cement and captive power plants in the State. Apart from JSW Bengal some of the important approvals received in the sponge iron and steel sector during the period include: -5 million tonnes per annum (tpa) steel plant of Jai Balaji group involving investment of ₹ 7737 crore at Purulia, 1.1 million tpa steel plant of Adhunik Corporation involving an investment of ₹ 1850 crore at Raghunathpur in Purulia, 0.6 million tpa steel plant at Kharagpur in Midnapore and 1.1 million tpa steel plant of Shyam Group involving investment of ₹ 910 crore, and 2 million tpa steel plant of Shyam Sel Limited involving investment of ₹ 1028 crore.

Apart from the above mentioned power projects of steel companies, the State received an important IEM for setting up of 1200 MW power plant by Bharat Aluminium Company at Raniganj.

Although the State has no linkage for iron ore supplies, the companies have decided to set up steel plants in the State and source the raw materials from neighbouring states like Jharkhand and Orissa. Apart from these, the State government has also been making efforts to locate Petroleum, Chemical and Petrochemicals Investment Region (PCPIR) in the State, which has the potential to draw huge investments.

Major investments are taking place in mine, steel plants, forging, pig iron etc. The easy availability of power, removal of freight equalization, close proximity to areas with natural resources relevant to the industry, and a labour force traditionally

skilled in operating iron and steel units are factors that have influenced the surge in investment in this sector. In recent years, investment in the chemical and cement industry has also picked up.

After the commissioning of the Haldia Petrochemicals Limited (HPL) in 2000, downstream units in the plastic and other related industries were set up in the State and they are mostly engaged in manufacturing plastic items like buckets, containers, moulded furniture, battery containers, nylon nets, house wares etc.

The State Government has introduced policy reforms in several areas in conjunction with practical measures to sustain investor confidence; the State Government has introduced policy reforms in several areas. It has promulgated in quick succession its policies on the development of industries in Biotechnology, Mines and Minerals, Information Technology and IT enabled services sectors. These policy statements have clearly enunciated the State Government objectives and outline map to achieve them. Through WBIIDC and WBIDC the State Government has set up the leather complex, foundry, rubber, chemical, plasto-steel, light engineering, polymer, garments and jute parks. Setting up of industrial parks in the Paschim Medinipore, Bankura, Malda, Darjeeling, Jalpaiguri districts has been initiated.

The State Government is focused on developing Special Economic Zones (SEZs). It encourages hassle free manufacturing and trading for export promotion. Around 80 per cent investment takes place in IT/ITES sector and 2 per cent in biotech sector. In West Bengal, there are 3 functional Special Economic Zones—Falta (multi products zone), Manikanchan (Salt lake—gems and jewellery) and WIPRO (Salt Lake—IT/ITES).

The Calcutta Leather Complex at Bantala has already been declared as a Special Economic Zone. It is a perfect model of public-private partnership, spread over around 1,100 acres of land and is steadily emerging as one of the largest projects of its kind in the world.

The Food Processing Industries & Horticulture Department of the State Government promotes food-processing industries in the State.

The State has identified the Information Technology (IT) sector as a priority sector for growth. The IT Hub at sector-V of Salt Lake is India's first fully integrated electronic complex spread over 150 acres of green pollution free area near airport.

POWER AND IRRIGATION

There are 7 major irrigation projects and 34 medium irrigation schemes being managed by the Irrigation and Waterways Department of the State Government. Teesta Barrage Project and Subarnarekha Barrage Project are the two major on-going schemes. The Subarnarekha Barrage Project envisages the utilization of the share of water resources available from the river Subarnarekha as per the Tripartite Agreement with the Government of Bihar (presently Government of Jharkhand) and Orissa to irrigate an area of 99248 hectare in Kharif and 30766 hectare in Rabi in the districts of Paschim and Purba Medinipur of the State.

The State Government took up several Medium Irrigation Schemes in the districts of Bankura, Birbhum, Burdwan and Purulia. Out of the 32 schemes in Purulia, 25 schemes have been completed and 7 schemes are continuing, of which 2 schemes namely Patloi and Tatko Irrigation Schemes are included under modified programme of AIBP. The ultimate irrigation potential achieved through the completed medium

irrigation schemes is 43,002 thousand hectare, whereas the ultimate irrigative potential of the on-going schemes is 8.21 thousand hectare.

The ultimate minor irrigation potential in the Stte has been estimated as 44.34 lakh hectare, out of which 31.34 lakh hectare are from ground wter resources and 13.00 lakh hectare are from surface wter resources.

The electricity generating utilities in West Bengal in the State Sector are West Bengal Power Development Corporation Limited (WBPDECL), Durgapur Projects Limited (DPL) for thermal power generation, West Bengal State Electricity Distribution Company Limited (WBSEDCL) Renewable Energy Development Agency (WBREDA) for non-conventional energy generation. Besides, Damodar Valley Corporation (DVC) and National Thermal Power Corporation (NPTC) in the Central Sector, CESC Limited and Disergarh Power Supply Corporation in the Private sector are the other power generating utilities in the State. Total generation of power produced by the state agencies was 16270.1 MU. The total number of Mouzas Electrified is 37416 and the total number of pump sets energized is 1,15,357.

TRANSPORT

Roads : The length of roads as on 31 March 2002 was 91970 km including 1898 km national highways. The length of roads under State highway is 3533 km, under PWD 12565 km and that of the district roads 42,479 km respectively.

Railways : The total length of railway route in the State was 4561.93 km. Howrah, Asansol, Sealdah, Bandel, Bardhaman, Kharagpur and New Jalpaiguri are the main junctions.

GOVERNMENT

<i>Governor</i>	: Shri M.K. Narayanan	<i>Chief Secretary</i>	: Shri Samar Ghosh
<i>Chief Minister</i>	: Shri Buddhadeb Bhattacharjee	<i>Jurisdiction of High Court</i>	: West Bengal and Andaman & Nicobar Islands

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area (sq km)	Population	Headquarters
1.	Bankura	6,882	31,91,822	Bankura
2.	Bardhaman	7,024	69,19,698	Bardhaman
3.	Birbhum	4,545	30,12,546	Suri
4.	Kolkata	185	45,80,544	Kolkata
5.	Darjeeling	3,149	16,05,900	Darjeeling
6.	Howrah	1,467	42,74,010	Howrah
7.	Hooghly	3,149	50,40,047	Chinsurah
8.	Jalpaiguri	6,227	34,03,204	Jalpaiguri
9.	Coochbehar	3,387	24,78,280	Coochbehar
10.	Malda	3,733	32,90,160	English Bazar
11.	Medinipur	14,081	96,38,473	Medinipur
12.	Murshidabad	5,324	58,63,717	Berhampore
13.	Nadia	3,927	46,03,756	Krishnagar
14.	North 24 Parganas	4,094	89,30,295	Barasat
15.	South 24 Parganas	9,660	69,09,015	Alipore

16.	Purulia	6,259	25,35,233	Purulia
17.	Uttar Dinajpur	3,140	24,41,824	Raigunj
18.	Dakshin Dinajpur	2,219	15,02,647	Balurghat

Note : The district Medinipur has been bifurcated on 1 January 2002 into Purba and Paschim Medinipur (the population figures of census 2001 are yet to be incorporated).

ANDAMAN AND NICOBAR ISLANDS

<i>Area</i>	: 8,249 sq km	<i>Population</i>	: 3,56,152 (2001 census)
<i>Capital</i>	: Port Blair	<i>Principal Languages</i>	: Hindi, Nicobarese, Bengali, Tamil, Malayalam, Telugu

HISTORY AND GEOGRAPHY

The Union Territory of the Andaman and Nicobar Islands, is situated between 6° and 14° North Latitude and 92° and 94° East Longitude. The islands located north of 10° north latitude are known as Andaman Group of islands while islands located south of 10° north latitude are called Nicobar Group of islands. The climate of the islands can be defined as humid, tropical coastal climate. The islands receive rainfall from both the south-west and north-east monsoons and maximum precipitation is between May and December.

The original inhabitants of the islands lived in the forests on hunting and fishing. There are four Negrito tribes, viz., the Great Andamanese, Onge, Jarawa and Sentinalese in the Andaman group of islands and two Mongoloid tribes, viz., Nicobarese and Shompens in the Nicobar group of islands.

AGRICULTURE

A total area of 8068.71 hectare. under agriculture and plantation in the Andaman and Nicobar Islands was damaged by Tsunami / Earthquake. Out of that paddy and other field crops is 2177.70 ha. and 5891.01 ha. under plantation crops. Area under permanent submergence is 4206.64 hect. with paddy and other field crops.

Paddy, the main food crop, is mostly cultivated in Andaman group of Islands, whereas Coconut and Arecanut are the cash crops of Nicobar group of Islands. Field crops, namely, pulses, oilseeds and vegetable are grown followed by paddy during Rabi season. Different kinds of fruits such as mango, sapota, orange, banana, papaya, pineapple and root crops are grown on hilly land owned by the farmers. Spices, viz. pepper, clove, nutmeg and cinnamon are grown under multitier cropping system. Rubber, red oil, palm and cashew are grown on a limited scale in these Islands.

FORESTS

Recorded forest is 7,171 sq km of the total geographical area of the islands. Many types of forests are found in the islands, such as tropical wet evergreen, tropical semi-evergreen, moist deciduous, littoral, mangrove and swamp forests. A large variety of timbers are found in the Andaman group of islands. The most valuable timbers are *padauk* and *gurjan*. These species are not found in Nicobar.

WILD LIFE

There are 96 Wildlife Sanctuaries, 9 National Parks and 1 Biosphere Reserve in these Islands. Mammals - out of 55 terrestrial and 7 marine mammal species reported so far, 32 species are endemic. Birds - as many as 246 species and sub-species of birds are reported to inhabit these Islands and of these 99 species and sub-species are endemic. Reptiles - there are 76 terrestrial reptiles found here, of these, 24 species are endemic. Marine Life - Islands harbour more than 1,200 species of fish, 350 species of echinoderms, 1,000 species of molluscs and many more lower forms of life. Among vertebrates dugongs, dolphins, whales, salt water crocodiles, sea turtles, sea snakes, etc., are common. Coral and Coral reefs - so far 179 species of corals belonging to 61 genera have been reported. Reefs are mostly fringing type on eastern coast and barrier type on the western coast.

INDUSTRY

There are 1833 registered MSMEs and Handicrafts Units. Two units are 100 per cent export oriented units in the line of Fish/Prawn processing activity. Apart from this, there are shells and wood based handicraft units. SSI units are engaged in the production of paints and varnishes, mini flour mills, soft drinks and beverages, steel furniture and fixtures, readymade garments, steel gate grills and structures. MSMEs handicraft units are also engaged in shell crafts, bakery products, rice-milling, furniture-making, etc. The Andaman and Nicobar Islands Integrated Development Corporation in the Public sector has spread its wings in the field of Tourism, Fisheries, Industries and Industrial financing and functions as authorized agents for Alliance Air/Jet Airways/Air Deccan.

TRANSPORT

The Motor Transport Department of A & N Administration operates from 13 stations in Northern and Southern group of islands. The department has a total number of 205 buses in operation mainly in rural area of A & N islands. Computerized ticketing for ATR express service has been implemented w.e.f. 15 August 2007 where advance tickets can be obtained.

TOURISM

Andaman and Nicobar Islands have been recognised as an eco-friendly tourist's destination. As a tourist paradise, these islands have something very special to offer like Cellular Jail, Ross Island and Havelock Island.

The Andaman tropical evergreen rain forests, beautiful silver sandy beaches, serpentine mangrove-lined creeks, marine life abounding in rare species of plants, animals, corals, etc., provide a memorable experience to the tourists. There is tremendous scope for enjoying nature in the beach resorts, water sports and adventure water sports, adventure tourism like trekking, Island camping, Nature trail, Scuba Diving, etc.

Tourism Department runs guest houses in various parts of the Islands for comfortable accommodation to tourists visiting these Islands. The important places of tourist interest are Anthropological Museum, Marine Museum, Water Sports Complex, Gandhi Park, North Bay, Viper Island, Ross Island, Chidiyatapu, (Bird watching), Red Skin Island, Corbyn's cove Beach, Islands like Neil Island, Havelock Island, Cinque, Little Andaman, Diglipur (Ross and Smith), etc.

As regards the connectivity, the islands are well connected to the mainland by air and sea. Indian Airlines, Air Deccan, Jetlite operates to Port Blair from Kolkata and Chennai. There are regular passenger ship services from Chennai, Kolkata and Vishakhapatnam.

GOVERNMENT

<i>Lt. Governor</i>	: Lt. Gen. (Retd.) Bhopinder Singh, PVSM, AVSM
<i>Chief Secretary</i>	: Vivek Rae
<i>Jurisdiction of High Court</i>	: Falls under the jurisdiction of Kolkata High Court

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area (sq km)	Population	Headquarters
1.	South Andaman	3181.401	2,08,471	Port Blair
2.	Nicobar	1,841	42,068	Car Nicobar
3.	North and Middle Andaman	3226.599	1,05,613	Mayabunder

CHANDIGARH

<i>Area</i>	: 114 sq km	<i>Population</i>	: 9,00,635
<i>Capital</i>	: Chandigarh	<i>Languages</i>	: Hindi, Punjabi, English

HISTORY AND GEOGRAPHY

Chandigarh is a fully grown town of most modern architectural splendour. The city nestles in a picturesque setting in the foothills of Shivalik hills and enjoys the popular epithet the "City Beautiful". Representative of modern architecture and town planning, the city is a creation of the French Architect, Le Corbusier. Chandigarh and the area surrounding it were constituted as a Union Territory on 1 November 1966. It serves as the joint capital of both Punjab and Haryana States. It is bounded on north and west by Punjab and on the east and south by Haryana.

ADMINISTRATION

Chandigarh Administration is moving on four broad fronts. First, it is its aim to provide, with the help of information technology, an accessible and transparent administration. Chandigarh was among the earliest to implement the provisions of the Right to Information Act. A number of services, for which citizens earlier had to go to government offices, are now available on computer and mobile phones. All rules are being reviewed to see what simplification can be carried out to make them user-friendly. The purpose is to minimise the exercise of discretion, and minimise the leg-work of the citizen in dealing with the Administration.

Secondly, the Administration is working towards a higher rate of economic growth by encouraging economic activities which provide greater value addition, such as knowledge based industries, high-end commercial activity, etc. Chandigarh already has the highest per capita income in the country.

Thirdly, the Administration is seeking to provide infrastructural services such as electricity supply, water supply, health and educational services and public transport which should compare with those in advanced countries.

Fourthly, the Administration is all too conscious of the fact that the benefits of development do not reach everyone equally. Hence there is a special emphasis on reaching out to those whom development has by-passed.

TRANSPORT

Chandigarh Administration comprehending the need for a user friendly transport system has decided to launch a Mass Rapid Transport System shortly. The UT Administration and the State Governments of Punjab and Haryana have come together for the implementation of the project.

CTU has computerized 70 per cent of its working and is in the process of further computerization. The Undertaking is also in the process of installing a Global Positioning System to monitor its fleet in a phased manner.

RURAL DEVELOPMENT

In order to sensitize the poor and weaker sections of the society about the rights and different benefits being extended to them by the State Legal Services Authority, 14 legal awareness seminars have already been organized in different villages of the UT.

Cement concrete paving and underground drains in village Kajheri and Palsora have been completed. 70 per cent work in village Mauli Jagran has been completed.

SPORTS

The Administration has opened a Girls Hockey Academy in sector-18 and would shortly start two more girls academies — one for Cricket and another for Football. A new athletic-cum-Football stadium would be built with all state-of-art-facilities in Sector 56 with a seating capacity of 40,000 spectators, the process for which has already started. Indoor provisions for Basket Ball, Volley Ball, Judo and wrestling will also be provided in this stadium.

INFORMATION TECHNOLOGY

Construction work of Chandigarh Administration's visionary project Rajiv Gandhi Chandigarh Technology Park (RGCTP) is in full swing. Completion of Phase III will provide direct employment to 35000 professionals, thereby increasing the direct employment of RGCTP to 67,000 and would create 2,00,000 indirect jobs in Chandigarh. The Entrepreneur Development Centre at the RGCTP is being set up over an area of 1.5 acre approximately. The centre would become operational this year.

Chandigarh has become a role model in using information technology to provide fast and user friendly services for the masses. Under the E-Governance initiatives of the Department, seven more Gram Sampark Centres have been set up in the villages of Dhanas, Khudda Jassu, Kaimbwala, Raipur Khurd, Raipur Kalan, Makhan Majra and Bahlana. As many as seven more Gram Sampark Centres in villages Palsora, Dadu Majra, Hallo Majra, Khuda Alisher, Daria, Mauli Jagran and Maloya have been made operative.

In addition to the existing Centres some more Sampark Centres have been proposed and new services like payment of BSNL bills, power bills, water bills, payment of LIC premium, school fees collection and tubewell booking, especially for rural citizens, have also been incorporated or are being afoot.

The Administration is working on energy conservation. A Work order has been issued to the Tata BP Solar Ltd. for commissioning the State Level Energy Park at the

Botanical Garden. Under the Solar Lighting initiative, all street lights in the villages would be replaced with solar based street lights.

SOCIAL WELFARE

Social Welfare has been a major focus of the Administration. Many people-friendly and innovative schemes for them have been launched by Administration. To wipe out the menace of casteism and encourage the people for inter-caste marriage, a sum of ` 5,000 is granted to the married couples provided that one of the spouses belongs to SC Community. The Administration has enhanced the amount to ` 50,000.

Under the Balika Samridhi Yojana, a sum of ` 500 is being given to the newly born girl child in the BPL families. The Chandigarh Administration has decided to set up a Preparatory School for Children with Special Needs (for 50 children) which will run in the premises of PRAYAS Building, Sector 38.

The Vocational Training Centre for Street Children in Maloya with the capacity to provide training for 900 children is under construction. The Administration has set up a child help line.

HEALTH

Telemedicine Project has been launched with state-of-art facilities at Government Medical College and Hospital, Sector 32, Chandigarh aiming to help needy patients to avail the expert advice of the doctors of specialized fields in PGI and ensuring them high-quality medical services.

The Government Multi Speciality Hospital (GMSH), Sector 16 has been upgraded by adding a Trauma Unit having 28 beds with Emergency Operation Theatres.

The Administration has launched the project for improving the Monitorable Indicators of Reproductive and Child Health in UT at a cost of Rs. 5,273 per mother and her child.

Seven more "State of the art" operation theatres including pre-anesthesia, post-anesthesia rooms and a post operative ward have been commissioned in Government Medical College and Hospital, Chandigarh. "SAMARTH" a residential house for mentally retarded individuals had also been set up in Sector 15, Chandigarh. A total of around ` 5.6 crore has been sanctioned for the Residential Accommodation of the eligible faculty staff of GMCH.

INDUSTRIES

The Administration is developing the Phase-III of the Industrial Area at the revenue estate of village Mauli Jagran. 152 acres of land have been acquired.

EDUCATION

Chandigarh Administration is coming up with its World Class Project, the multi institutional 'Chandigarh Education City' at Sarangpur with a total area of 130 acres.

Administration has enhanced the attendance scholarship being given to girl students of general category from ` 30 per month to ` 250 per month for a period for Classes 1st to 5th. For ensuring enrolment and education among scheduled caste boys and girls, Administration has also decided to increase the attendance scholarship

being given to the Scheduled Castes students studying in Class 1st to 8th from ` 30 per month to ` 250 per month in the age group of 6 to 14 years.

It has been decided to increase the scholarship to the meritorious SC/ST students of Classes 9th to 12th; it has been now increased to ` 300 per month whereas it was ` 20/- and 25/- earlier.

Chandigarh Administration has also decided to exempt the tuition fees of Muslims, Christians, Other Backward Classes, Handicapped, Ward of Freedom Fighters, Ex-serviceman, widows and divorcees having family income below ` 1.5 lakh per year. For the children belonging to low income groups and slum based families, it has decided to give incentive of ` 250 per month to rope in the children presently not enrolled in any school on their fresh enrolment.

TOURISM

Administration has taken many innovative and novel measures like Wedding Tourism. With the focus on extending efficient medical, educational and entertainment oriented facilities, Administration is promoting Cinematic Tourism, Sports Tourism and Medical Tourism in a big way. Chandigarh International Airport will prove to be a big leap for Tourism in the region.

POWER

Provision of sufficient electricity to all the residents of UT is also getting attention of the Administration. To improve the voltage profile and to reduce the load on the power distribution network of UT, the Electricity Wing had planned to add 80 MVAR Automatic Capacitor Banks at various existing 66KV Grid Sub-Stations located at different points in the periphery of UT.

Use of CFL has been made mandatory inside all government buildings. Similarly, all institutional buildings will have to provide solar lighting in their parking spaces within their complexes.

The Electricity Wing also achieved its target in reduction of transmission and distribution losses from 20.89% to 19.29%. The reduction is around 1.5%. Every effort is being made to reduce the losses further in the next year by another 1.5%.

MUNICIPAL CORPORATION

Municipal Corporation Chandigarh has upgraded the Sewage Treatment Plant at Diggian at a cost of ` 28 crore. MC also bagged the 1st prize both in water supply and sewage/drainage services from the Government of India, which was awarded by the Prime Minister of India.

A Supervisory Control and Data Acquisition System has been installed at a cost of Rs. 700 crore to keep surveillance and monitor the water supply. It will save power consumption, reduce operation and maintenance cost by approximately Rs. 3 crore annually.

To save potable water and provide additional water for landscaping, a project amounting to ` 36 crore has been taken up. This project will generate 10 MGD tertiary water. The existing Dhobi Ghat of Sector 15 has been converted into Automatic Laundry Marts, the first of its kind in India.

Adding another milestone to up-gradation of the environment in City Beautiful, The Municipal Corporation has set up a Solid Waste Processing Plant at Dadu Majra at a cost of ` 30.00 crore on 10 acres. The plant is one of its kind in northern India.

GOVERNMENT

<i>Administrator</i> :	Shri Shivraj V. Patil	<i>Adviser to the Administrator</i> :	Shri Pardip Mehra
		<i>Jurisdiction of High Court</i>	Falls under jurisdiction of Punjab and Haryana High Court

DADRA AND NAGAR HAVELI

<i>Area</i> :	491 sq km	<i>Population</i> :	2,20,490
<i>Capital</i> :	Silvassa	<i>Principal Languages</i> :	Gujarati, Hindi

HISTORY AND GEOGRAPHY

After prolonged skirmishes between the Portuguese and Marathas, on 17 December 1779, the Maratha Government assigned the aggregated revenue of Rs 12,000 in a few villages of this territory to the Portuguese as compensation to ensure their friendship. The Portuguese ruled this territory until its liberation by the people on 2 August 1954. From 1954 till 1961 the territory functioned almost independently by what was known as “Free Dadra and Nagar Haveli Administration”. However, the territory was merged with the Indian Union on 11 August 1961 and since then is being administered by the Government of India as a Union Territory. After liberation of the territory from Portuguese rule, a *Varishtha Panchayat* was working as an advisory body of the Administration. This was dissolved in August 1989 and a Pradesh Council for Dadra and Nagar Haveli District Panchayat and 11 Village Panchayats were constituted as per constitutional amendments at All India level. The U.T. of Dadra and Nagar Haveli has an area of 491 sq km and it is surrounded by Gujarat and Maharashtra. It consists of two pockets, namely, Dadra and Nagar Haveli. The nearest railway station is at Vapi which is 18 km from Silvassa.

AGRICULTURE

Dadra and Nagar Haveli is a predominantly rural area with about 79 per cent tribal population. It has about 21,115 hectare under cultivation. Major crop is paddy (*Kharif*) while Nagli and hill millets are the other crops of the area. Among fruits Mango, Chiku, Banana, etc. are also produced. Forests cover 40 per cent of the total geographical area.

Sugarcane cultivation has also been taken up in a big way since the last few years. And efforts are afoot to adopt a multiple cropping system in assured irrigated areas. The organic farming scheme will shortly be implemented in Dudhani and Mandoni patelads. To this end, 60 Kisan Credit Cards have been issued.

The Wadi Development programme in the tribal area of both Dadra and Nagar Haveli is implemented by the N.G.O., B.A.I.F. with the financial allocation from NABARD; a total of 800 tribal and scheduled caste families will benefit.

INDUSTRY

Prior to 1965-66 there was no industry in the Union Territory. There were a few traditional craftsmen who used to make pots, leather items, viz., chappals, shoes and some other items of bamboo. Industrial development started on a low-key during 1967-68 with the establishment of an industrial estate under the cooperative sector by Dan Udyog Sahakari Sangh Ltd. Thereafter, three Government Industrial Estates have been developed at Silvassa, Masat and Khadoli in the U.T. With the inception of the economic liberalization policy, a real boost in industrial development was seen. There are 1863 small sector industrial units and 430 MSI/LSI units functioning in the U.T. providing gainful employment to over 46,000 people.

IRRIGATION AND POWER

Prior to liberation of the territory, there was no irrigation facility and cultivators had to fully depend upon rainfall. After the merger of the territory with the Indian Union, adequate steps were taken under minor irrigation sector. So far 128 lift irrigation schemes have been completed on irrigation wells, surface water sources like rivers, check dams at various places in the territory creating additional irrigation potential of 1,851 hectare. Under medium irrigation project viz., Damnganga Reservoir Project, about 115 km of minor canals and distributaries are falling in the area of this Union Territory. Development works have been completed in field channels in all respects in 4,300 hectare and testing is done in 4,049 hectare.

There was no rural electrification prior to liberation of this territory. The electricity was provided with only one DG Set which was installed and operated in Silvassa Town for VIPs at Circuit House.

After liberation, the UT Administration commenced rural electrification work with the co-operation of neighbouring State of Gujarat and completed electrification work in 25 villages by 1976. The power demand of the UT is met by Gujarat Electricity Board through a single Circuit from Vapi-Silvassa and distributed amongst limited number of consumers. The first 66 KV Sub-Station was established at Amli in 1979. With the commissioning of the said Sub-Station, the electricity department is in a position to provide electricity to all villages.

One more 220/66 KV, 2x160 MVA sub-station at village Khadoli has been approved by the Ministry of Power. The Power Grid Corporation of India will execute this work, which is likely to be completed within three years. In addition to this, a proposal for the establishment of various 66/11 KV sub-station at Vaghdhara, Athal, Piparia, Sayli, Velugam etc. is in the pipeline.

The Power requirement of the territory is being met from Central Sector Power Generating Stations located in the western region. At present the power allocation from the Central Sector is 270 MW. The power demand has increased tremendously due to rapid industrialisation with the extension of Tax Holiday benefit to this UT by the Government of India.

TRANSPORT

The Union Territory depends heavily on Maharashtra and Gujarat road network as the territory can be accessed only after crossing these two States from Mumbai. At

present road length is about 635 km out of which 570 km is surfaced. Almost all villages are connected with all-weather roads. The rail route from Mumbai to Ahmedabad links Vapi also. Mumbai is the nearest airport. Recently, the work of widening of roads in the Union Territory has been taken up to meet the requirement of increasing vehicular traffic.

To meet the need of rapid industrialisation, four-laning work has been taken up in Silvassa and adjoining areas, besides other spillover works. Converting of two-lane road to four-lane road for a length of 17.69 km has been completed. The Dadra — Tighra road is under progress and during 2007-08, another 5.70 kms length of road connecting Silvassa and Naroli was likely to be converted into a four-lane drive.

TOURISM

Tourism sector has been assigned high priority keeping in view the dense forest area and favourable climate.

The prominent places of tourist interest are Tadekeshwar Shiva Mandir, Bindrabin, Deer Park at Khanvel, Vanganga lake and Island Garden, Dadra, and Vanvihar Udhyan Mini Zoo, Bal Udhyan, Tribal Museum and Hirvavan Garden at Silvassa. The development of water sports at Dudhani has been completed. The construction of an Amphitheatre close to Yatri Niwas, Silvassa is under progress. To encourage tourism activities, some traditional and modern cultural activities like celebration of Tarpa Festival, Kite festival, World Tourism day, etc., are organised every year.

FESTIVALS

Normally all festivals of Hindus, Muslims and Christians are celebrated in the territory, while tribals celebrate their own festivals. Diwaso is celebrated by Dhodia and Varli tribes and Raksha Bandhan is celebrated by Dhodia tribe. Other festivals include Bhawada amongst Varlis, Koli tribes and Khali Puja by all tribes after harvesting of crops and Gram Devi before harvesting of crops.

GOVERNMENT

Administrator : Shri Satya Gopal

Jurisdiction of High Court : Falls under the jurisdiction of Mumbai High Court

DAMAN AND DIU

Area : 112 sq km

Population : 1,58,204

Capital : Daman

Principal Language : Gujarati

HISTORY AND GEOGRAPHY

Daman and Diu along with Goa was a colony held by the Portuguese even after Independence. In 1961, it was made an integral part of India. After Goa was conferred with statehood, on 30 May 1987, Daman and Diu was made a separate Union Territory. Daman lies about 193 km away from Mumbai. It is bounded on the east by Gujarat, on the west by the Arabian Sea, on the north by the Kolak river and on the south by Kalai

river. The neighbouring district of Daman is Valsad in Gujarat. Diu is an island connected by two bridges. The neighbouring district of Diu is Junagadh of Gujarat.

AGRICULTURE AND IRRIGATION

Total irrigated area is 393.93 ha. and un-irrigated area is 3304.73 hectare as per the Agricultural Census 2000-01. In 2000-01 the net area under cultivation was 3375.65 ha. Important field and garden crops are paddy, ragi, bajra, jowar, groundnut, pulses and beans, wheat, banana, sapota, mango, chickoo, coconut and sugarcane. There are no major forests in the territory.

INDUSTRY AND POWER

There are 2930 small-scale and medium-scale industries in Daman and Diu. Two industrial areas have been developed by Omnibus Industrial Development Corporation at Daman. The other industrial areas are Dabel, Bhimpore, Kachigam and Kadaiya.

All villages have been electrified. Daman and Diu have got adequate power allocation from Central sector power stations in western region.

TRANSPORT

Roads: The total length of roads in Daman and Diu are 191 km and 78 km respectively.

Railways: There is no railway link with Daman and Diu. The Nearest railway station from Daman is Vapi on western railway on Mumbai-Delhi route. The nearest railway station from Diu is Delvada on metre-gauge.

Aviation: There are airports both in Daman and Diu. Diu is connected by air and there is regular air service from Mumbai to Diu.

TOURIST PLACES

Important tourist places in Daman are as under : Bom Jesus Church, Our Lady of Sea Church; Our Lady of Remedios Church; Forts of Moti Daman and Nani Daman; Jampore and Devka Beaches; Public Garden at Nani Daman and Moti Daman Jetty, Pargola Garden, Moti Daman; Amusement Park, Devka; Damanganga Tourist Complex, Kachigam; Satya Sagar Udyan; Mirasol Garden; Mirasol Water Park.

In Diu, St. Paul's Church; Diu Fort and Panikota Fort; Nagoa and Chakratirth and Children's park at Ghoghla and Summer House.

GOVERNMENT

Administrator : Shri Satya Gopal

Jurisdiction of High Court : Falls under Mumbai High Court

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area (sq km)	Population	Headquarters
1.	Daman	72	1,13,989	Daman
2.	Diu	40	44,215	Diu

DELHI

Area : 1,483 sq km *Population* : 13.80 million

Capital : Delhi *Principal Languages* : Hindi, Punjabi, Urdu & English

HISTORY AND GEOGRAPHY

Delhi finds prominent reference right from the times of the epic *Mahabharata*. Its control passed from one ruler/dynasty to another, beginning with the Mauryas, Pallavas, Guptas of Central India and then going on to the Turks of Afghan during the 13th to 15th centuries, and finally to the Mughals in the 16th century. In the latter half of the 18th century and early 19th century, British rule was established in Delhi. In 1911, Delhi became the centre of all activities after the capital was shifted from Kolkata (Calcutta). It was made a Union Territory in 1956. Lying in the northern part of the country, Delhi is surrounded by Haryana on all sides except the east where it borders with Uttar Pradesh. The 69th Constitutional amendment is a milestone in Delhi's history as it got a Legislative Assembly with the enactment of the National Capital Territory Act, 1991.

AGRICULTURE

The principal food crops are wheat, *bajra*, *jowar*, gram and maize. However, emphasis has now shifted from food crops to vegetables and fruit crops, dairy and poultry farming, floriculture, etc., as these are more remunerative than food crops in the territory.

INDUSTRY

Delhi is not only the largest commercial centre in northern India, but also the largest centre of small industries. These units manufacture a wide variety of items like television, tape recorders, light engineering machines and automobile parts, sports goods, bicycles and PVC goods including footwear, textiles, fertilizers, medicines, hosiery, leather goods, software, etc.

Delhi's new millennium industrial policy emphasizes setting up of high-tech and sophisticated industries in electronics, telecommunications, software industries, IT enabling services, etc. The industries, which are non-polluting and encourage high value addition and depend largely on skilled manpower are being promoted. DSIDC is setting up a Training Institute for Gems and Jewellery and Assaying and Hallmarking Centre at Okhla in the building of Hitech Vocational Centre.

For the purpose of relocating industrial units functioning in residential non-conforming areas, the Government of NCT of Delhi took possession of 1900 acres of land at village Bawana, Holambi Kalan and Holambi Khurd for developing new industrial estates. Bawana Industrial area developed by DSIDC is the largest in Asia and is spread over 1900 acres of land. At Narela 900 plots have been developed and allotted and another 600 plots are being developed. Work of construction of 378 flatted factories at Jhilmil Industrial Area for relocation of smaller units has been completed. 450 acres of land have been taken for development at the Bhorgaah industrial estates. In addition to the above, 652 hectare of land is being acquired for development into a huge industrial area in Kanjhawala/Kerala.

IRRIGATION AND POWER

Due to fast urbanisation of the rural areas of Delhi, cultivable command area under irrigation is getting reduced day by day. Two schemes, namely, "Keshopur Effluent Irrigation Scheme Phase-III" and "Improvement and Extension of Effluent Irrigation System from Coronation Treatment Plant" are under execution. Irrigation of about 350 hectare with state tube-wells and 1,376 hectare from effluent water is being provided in the rural area of NCT of Delhi. In addition about 4,900 hectare of land is being irrigated from western Yamuna Canal network.

The firm availability of power for Delhi from its own generating units at Rajghat Power Houses, IP Station and Gas Turbines including Badarpur Thermal Station is of the order of 850-900 MW. The remaining power is drawn from Northern Regional Grid. Delhi has also envisaged a number of generating projects to be taken up. Pragati Combined Cycle Power Project has been established at Indraprastha Estate. A 330 MW Pragati Power Project under construction is scheduled to be commissioned soon. The test run for its first phase of 100 MW has already started. The work of newly planned 330 MW gas based power plant under Pragati-II and 1000 MW power plant planned at Bawana is going on. Existing coal-based Indraprastha plant is being replaced by 1000 MW gas based plant.

To streamline the distribution of power, DVB has been privatised and Delhi is now served by two of the best electric utilities in India, BSES and Tata Power (NDPL).

TRANSPORT

Delhi is well connected by roads, rail and air with all parts of India. It has three airports—Indira Gandhi International Airport for the international flights, Palam Airport for domestic air services and Safdarjung Airport for training purposes. It has three important railway stations — Delhi Junction, New Delhi Railway Station and Nizamuddin Railway Station. Delhi has three inter-state bus terminals at Kashmere Gate, Sarai Kale Khan and Anand Vihar.

Keeping in view the rising vehicular pollution and chaotic traffic condition in the city of Delhi, it has been decided to start Mass Rapid Transit System (MRTS) in Delhi. The Project is under implementation and it uses the state-of-the-art modern technology. The metro rail project runs in Delhi. Now three metro corridors exist in phase-1 of Delhi Metro comprising three corridors of total length of 65.1 Km have been completed and operational in record time with full commissioning of line from Shahdara to Rithala and Vishwa Vidyalaya to Central Secretariat. The third line from Barakamba road to Dwarka is also running to provide better connectivity to the commuters from NCR region.

FESTIVALS

Being a cosmopolitan city, all major festivals of India are celebrated here. Moreover, some tourism festivals have become regular annual events of Delhi. Delhi Tourism and Transportation Development Corporation organises Roshnara Festival, Shalimar Festival, Qutab Festival, Winter Carnival, Garden Tourism Festival, Jahan-e-Khusrao Festival and Mango Festival every year.

TOURIST PLACES

Important tourist places are Lal Quila (Red Fort), Jama Masjid, Qutab Minar, India Gate, Laxmi Narain Mandir (Birla Mandir), Humayun's tomb, Lotus Temple, Akshardham, etc. Delhi Tourism and Transportation Development Corporation Limited conducts city sight-seeing and excursion tours. The Corporation has also introduced adventure tourism activities such as para-sailing, rock-climbing and boating in Delhi. The Corporation has also developed DELHI HAAT, where beverages and food items of different states are available at one place. More such HAATs are planned in different parts of Delhi. The Corporation is also running Coffee Homes in different parts of Delhi. The "Garden of five Senses" has also been opened in the South District of Delhi, which attracts a lot of tourists visiting Delhi.

GOVERNMENT

<i>Lt. Governor</i>	: Shri Tejindra Khanna	<i>Chief Secretary</i>	: Shri Rakesh Mehta
<i>Chief Minister</i>	: Smt. Sheila Dikshit	<i>Jurisdiction of High Court</i>	: Delhi

LAKSHADWEEP

<i>Area</i>	: 32 sq km	<i>Population</i>	: 60,650
<i>Capital</i>	: Kavaratti	<i>Principal Language</i>	: Jeseri (Dweep Bhasha) and Mahal

HISTORY AND GEOGRAPHY

Not much is known of the early history of these islands. The islands supposed to have been inhabited first are Amini, Andrott, Kavaratti and Agatti. It was earlier believed that the islanders were originally Hindus and later converted to Islam under the influence of Arab traders sometime in the 14th century. But Archaeological evidences unearthed indicate that there were Buddhist settlements around the 6th or 7th century. Earliest Muslim converts or settlers pre-date the year 139 AH of the Hijra year (eighth century) of which period grave stones have recently been discovered in Agatti. This would tend to bear out the traditional belief that Islam was brought to the Island by Arab Saint, Ubaidulla in 41 AH.

Probably independent till 16th century the Islands were driven to seek the assistance of Raja of Chirakal to help them avert establishment of Portuguese domination. This enabled him to establish his authority and, later, the islands were transferred in *jaggeer* to Ali Raja, head of Moplah community in Cannanore (Now in Kerala), who later became an independent ruler himself. The Arakkal rule was not popular and in 1787, Tipu Sultan acceded to the petitions of the Northern islands to annex these islands. After the fall of Tipu Sultan, the Islands were passed to East India Company but continued to be ruled de facto by the rulers of Cannanore till their ultimate annexation by the British in the early 20th century. In 1956, the islands were constituted into a single territory, and since then, have been directly administered by the Union Government through an Administrator. The Laccadives, Minicoy and Amindivi group of islands were renamed as Lakshadweep in 1973. Lakshadweep, a group of coral islands, consists of 12 atolls, three reefs and submerged sand banks. Of the 36 islands, only 11 are inhabited. These lie scattered in the Arabian Sea about 280 km to 480 km off Kerala coast between 8° and 12° 3' North Latitude and 71° and 74° East Longitude.

AGRICULTURE

Coconut is the only major crop with a production of 553 lakh nuts per year. The area under cultivation is about 2,689 hectare. Lakshadweep coconut is branded as an organic product. In India, Lakshadweep stands first in coconut production and productivity per hectare is 20,500 and average yield per palm per year is 82 coconuts. The Lakshadweep coconuts are the highest oil content nuts in the world (82 per cent).

FISHERIES

Fishing is another major activity. The sea around the island is highly productive. The islands stand first in the country in per capita availability of fish. During 2010, 12,284 tonnes of fish have been landed in this U.T.

INDUSTRIES

Coconut fibre extraction and conversion into fibre products is the main industry in the islands. Under Government Sector, there are seven coir fibre factories, five coir production-cum-demonstration centres and seven fibre curling units, functioning under coir sector. These units produced coir fibre and coir yarn in addition to other coir products like curled fibre, corridor mat, mat and mattings. A few coir twisting units also function in private sector.

TRANSPORT

At present M.V. Kavaratti, M.V. Arabian Sea, M.V. Bharat Seema, M.V. Dweep Setu, M.V. Amindivi and M.V. Minicoy handle the passenger traffic in mainland island and inter-island sector. Two inter-island ferry vessels M.V. Khadeeja Beevi and M.V. Hameedath Bee provide connectivity between the islands except Minicoy island with Kavaratti as base port. The cargo traffic in this sector is handled with four cargo barges namely M.V. Ubaidulla, M.V. Thinnakara, M.V. Lacadives and M.V. Cheriyaam. Further one Oil Barge M.V. Suheli (60 MT) is being utilized for providing bunker to inter island ferries. Besides, the Administration operates an ambulance helicopter service between the islands and to mainland and airline connects Agatti island and Kochi daily except Sundays.

The 15 years Perspective Plan for shipping requirements in UTL are approved by Ministry of Shipping in December 2000. Among the 18 new ships recommended by the above plan, three 150 passenger high speed crafts and two 10 Ton Bullard Tugs have already been procured and inducted into service. One 15 passenger and three 50 passenger high speed vessels were also sanctioned by Government of India under PMGSY which have already been procured and inducted into service. Two 250 passenger cum 100 MT Cargo Ships have been constructed at Colombo Dockyard, Srilanka. The first ship was "Arabian Sea" delivered in January 2010 and pressed into service. The second ship "Lakshadweep Sea" is being inducted into service by end of July 2010. Six 200 passenger Landing Barges are also being constructed at Vipul Shipyard, Goa. Apart from the above vessels, two Landing Barges, one Oil Barge and one LPG Ship are also recommended by the committee for which tenders are being finalized by SCI. Proposal has also been submitted to Ministry of Shipping for approval of EFC for acquisition of one 400 passenger ship.

TOURIST CENTRES

Tourism is developing into an important industry. Important tourist places are Agatti, Bangaram, Kalpeni, Kadmat, Kavaratti and Minicoy, etc. 9729 Tourists visited the islands in 2009-10 of which 4,126 are Foreign Tourists.

GOVERNMENT

<i>Administrator</i>	:	Shri J.K. Dadoo
<i>Jurisdiction of High Court</i>	:	Falls under jurisdiction of Kerala High Court

PUDUCHERRY

<i>Area</i>	:	479 sq km	<i>Population</i>	:	9,74,345
<i>Capital</i>	:	Puducherry	<i>Principal Languages</i>	:	Tamil, Telugu, Malayalam, English and French

HISTORY AND GEOGRAPHY

The territory of Puducherry comprises the former French establishment of Puducherry, Karaikal, Mahe and Yanam, which lie scattered in south India. Puducherry, the capital of the territory was once the original headquarters of the French in India. It was under the French rule for 138 years and merged with the Indian Union on 1 November 1954. It is bounded on the east by the Bay of Bengal and on the three sides by Tamil Nadu. About 150 kms south of Puducherry on the East Coast lies Karaikal. Mahe is situated on the Malabar coast on the Western Ghats surrounded by Kerala. It can be reached from Calicut Airport, which is 70 kms from Mahe. Yanam is situated adjoining the East Godavari district of Andhra Pradesh and is about 200 kms from Visakhapatnam airport.

AGRICULTURE

Nearly 24.37 per cent of the population of the Union Territory is engaged in agriculture and allied pursuits. 80.7% of the cultivated area is irrigated. Paddy is the predominant crop (65%) followed by pulses. Mahe region contributes to the plantation wealth of this territory. Crops like coconut, arecanut, condiments and spices are grown here. Paddy is a major crop and pulses, groundnut and chillies are the other rainfed crops grown in Yanam.

INDUSTRY

7,982 Industrial Units in total with an aggregate investment of ₹ 2,177.78 crore provided employment to 93,044 persons. The total value of production of these industrial units worked out to ₹13,455.34 crore.

IRRIGATION

Under the assistance from the European Union many tanks were rehabilitated. 8 bed dams have been constructed across the river Sankaraparani and Pennar at various places. In addition to the above, necessary proposal to construct bed dams for ground water recharges at Aratchikuppam, Pambaiyar confluence point at Sellipet, across Malatar in Vadukuppam at Puducherry and across Mullaiyar, Pravadayananar and Vanjiar at Karaikal and also the construction of a bridge-cum-barrage at Villanur are under progress.

POWER

The Power requirements of the Union Territory of Puducherry are met by availing share of power from the Central Generating Stations and by purchasing power from the neighbouring State Electricity Boards viz., Tamil Nadu Electricity Board, Kerala State Electricity Board and from the Puducherry Power Corporation Limited. The total power available for Union Territory of Puducherry is 396.58 MW.

TRANSPORT

Roads nearly 677.525 km. of various category are being maintained by Roads Division of PWD Puducherry. Construction of bridges and improvement of roads are under progress.

TOURISM

Located about 160 km south of Chennai, Puducherry (known in Tamil as Pudducherry), the former French Colony of the early 18th century, is a charming

Indian town with a few enduring pockets of French Culture, and an Ashram set beside the sea. Together with the other former French enclaves of Karaikal (also in Tamil Nadu), Mahe (Kerala), Yanam (Andhra Pradesh), it now forms the Union Territory of Puducherry. The uniqueness of this town invariably lies in skilful town planning and Franco Tamil architecture. The town is built on the model of "bastide", a fortified French coastal town of the late 18th century.

Being the legendary abode of renowned saints, ancient trading settlement with Rome and Greece, once capital of French India, a spiritual Power house, Puducherry has touristic resources in the backwaters, rivers, beaches and other areas developed as sustainable eco-tourist facilities. Influenced by East and West, Puducherry has unique handicrafts in leather pottery, hand made paper, incense and antique colonial furniture. Late Prime Minister Pandit Jawaharlal Nehru rightly described Puducherry as "the Window of French Culture".

Sri Aurobindo, the great seer, poet and prophet of Indian spirituality, preached his vision and ideals staying in Puducherry till his end. His Ashram is still a unique institution with its distinctive way of life attracting people from all over the world.

GOVERNMENT

<i>Lt. Governor</i> : Dr. Iqbal Singh	<i>Chief Secretary</i> : Thiru R. Chandra Mohan
<i>Chief Minister</i> : Thiru V. Vaithilingam	<i>Jurisdiction of High Court</i> : Falls under jurisdiction of Chennai, High Court

AREA, POPULATION AND HEADQUARTERS OF DISTRICTS

S.No.	District	Area (sq km)	Population	Headquarters
1.	Puducherry	290	7,35,332	Puducherry
2.	Karaikal	161	1,70,791	Karaikal
3.	Mahe	9	36,828	Mahe
4.	Yanam	20	31,394	Yanam

31 Diary of National Events

(OCTOBER 2009—SEPTEMBER 2010)

OCTOBER 2009

- Army and Air Force carry out joint exercise in Assam and Arunachal Pradesh to check operational preparedness.
- Flood causes devastation in Andhra Pradesh and Karnataka. Prime Minister makes an aerial survey of the two states and grants 1000 crore rupees to each state as interim relief.
- Indian Space Research Organisation (ISRO) Chairman G. Madhavan Nair becomes the President of the International Academy of Astronautics (IAA).
- Telecom Regulatory Authority (TRAI) issues a consultation paper on spectrum management and review of license terms and conditions.
- India and Norway sign a MoU on climate change and implementation of projects of the Kyoto Protocol.
- Election Commission announces phased polling for the Jharkhand Assembly.

NOVEMBER 2009

- New guidelines proposed by Food Safety and Standards Authority of India (FSSAI) to check flouting of food adulteration rules by manufacturers.
- Comptroller and Auditor General (CAG) of India constitutes a high level team for auditing Reliance Industries expenses on eastern offshore KGD-6 fields.
- Delhi High Court holds that information stored in Electronic Voting Machine (EVM) cannot be made public under the Right to Information (RTI) Act.
- Sachin Tendulkar becomes the first cricket player to cross the 17,000 run mark.
- Delhi Government receives the 'Indira Priyadarshini Vrikshamitra Award 2008', for increase in forest cover in the capital.
- Indian and Canada agree on a civil nuclear deal giving New Delhi access to Canadian nuclear technology and uranium after a gap of 34 years.

DECEMBER 2009

- India and Bangladesh finalise the drafts of three treaties including the one on transfer of sentenced persons.
- Parliament approves the creation of 15 more Central universities, with Rajya Sabha approving the Central Universities (Amendment) Bill 2009.
- India wins 40 (6 gold, 9 Silver, 25 Bronze) medals at the Asian Indoor Games.
- India successfully test-fires surface-to-surface missile *Dhamush*, Prithvi's Naval variant with a range of 350 km.
- Saina Nehwal and Chetan Anand clinch singles titles in their respective category after winning the mixed doubles at the Jaypee Cup Syed Modi International

Grand Prix Badminton tournament.

- Union Minister P. Chidambaram invites the Maoists for a dialogue.
- Cabinet clears amendments to the Copyright Act 1957, paving the way among other things for producers of films and publishers of books to get royalty.
- India's export touches \$ 14.6 billion in the month—the highest in the past 15 months.

JANUARY 2010

- Centre sanctions 26 more battalions for the Assam Rifles.
- India and Nepal agree for close cooperation to tackle terrorism, extremism, cross border crimes, smuggling of fake currency, arms and human trafficking.
- Veteran journalist and writer Mrinal Pandey appointed as Chairperson of Prasar Bharati.
- Padma Awards announced.

FEBRUARY 2010

- India successfully test-fires its indigenous Agni-III ballistic missile with a range of 3500 Kms from the Wheeler Island, off the coast of Orissa.
- Cabinet clears Women's Reservation Bill.
- Defence budget hiked with an increased capital outlay of Rs. 60,000 crore.

MARCH 2010

- India's Moon Mission 'Chandrayaan-I' detects vast ice deposits near moon's north pole.
- India and the US sign a new agreement to give push to bilateral trade and investment flow.
- Environment Ministry fixes a two year time frame for Environment Impact Assessment (EIA) studies for development projects requiring environmental clearance.
- India purposes anti-dumping duty on the import of a chemical from China used for manufacture of glass, bricks and tiles.
- Information & Broadcasting Ministry decides to revive the Broadcasting Audience Research Council.

APRIL 2010

- Tax concession announced for coffee growers, new hospitals and construction sector.
- Chandrashekhhar Dasgupta, a senior Indian diplomat elected to the UN Committee on Economic, Social and Cultural Rights.

MAY 2010

- A special court holds Pakistani national Ajmal Amir Kasab guilty on 86 counts for the 26/11 terrorist attack in Mumbai.

- Union Cabinet approves a thousand crore rupee project to streamline and integrate visa, immigration and foreign registration and tracking process.
- Intermediate range surface to surface ballistic missile Agni-II successfully tested.
- Cyclone 'Laila' strikes the Andhra coast inundating vast areas, disrupting traffic, snapping electricity and communication links.
- At least 166 passengers on board an Air India flight from Dubai killed in a mishap while landing at Mangalore Airport, in South India.
- At least 76 people killed and 200 injured in the derailment of Gyaneswari Express in West Bengal.

JUNE 2010

- President's role imposed in Jharkhand.
- India and the US agree to intensify anti-terror cooperation, deepen defence and security cooperation and expand trade and investment.
- India and South Africa sign three agreements to provide fresh impetus to bilateral ties.
- India's top shuttler Saina Nehwal wins the Singapore Open Badminton Tournament.
- A 1,500 crore rupee package finalized by group of ministers, as compensation to the next of kin of those who died and those debilitated in the Bhopal gas disaster.
- In yet another achievement Saina Nehwal wins the Indonesian Open Super Series.

JULY 2010

- India's Polar Satellite Launch Vehicle (PSLV-C15) successfully launched.

AUGUST 2010

- At least 85 people killed and many go missing in flash floods following a cloudburst in Leh, in Ladakh region.
- Prime Minister Manmohan Singh announces a grant of ₹ 125 crore for relief and rehabilitation of flood-ravaged Ladakh.

SEPTEMBER 2010

- Government approves a revival plan for the National Film Development Corporation.
- Allahabad High Court rules by a majority verdict that the disputed land in Ayodhya be divided equally into three parts among Hindus and Muslims.

32 General Information

PRESIDENTS OF INDIA¹

Name	Tenure
Dr Rajendra Prasad (1884-1963)	26 January 1950-13 May 1962
Dr Sarvepalli Radhakrishnan (1888-1975)	13 May 1962-13 May 1967
Dr Zakir Hussain (1897-1969)	13 May 1967-3 May 1969
Varahagiri Venkata Giri (1894-1980)	3 May 1969-20 July 1969 (Acting)
Justice Mohammad Hidayatullah (1905-1992)	20 July 1969-24 August 1969 (Acting)
Varahagiri Venkata Giri (1894-1980)	24 August 1969-24 August 1974
Dr. Fakhruddin Ali Ahmed (1905-1977)	24 August 1974-11 February 1977
B.D. Jatti (1912-2002)	11 February 1977-25 July 1977 (Acting)
Neelam Sanjiva Reddy (1913-1996)	25 July 1977-25 July 1982
Giani Zail Singh (1916-1994)	25 July 1982-25 July 1987
R. Venkataraman (1910-2009)	25 July 1987-25 July 1992
Dr Shankar Dayal Sharma (1918-1999)	25 July 1992-25 July 1997
K.R. Narayanan (1920-2005)	25 July 1997-25 July 2002
Dr. A.P.J. Abdul Kalam (b-1931)	25 July 2002-25 July 2007
Smt. Pratibha Patil (b-1934)	25 July 2007-till date

VICE-PRESIDENTS OF INDIA²

Name	Tenure
Dr Sarvepalli Radhakrishnan (1888-1975)	1952-1962
Dr Zakir Hussain (1897-1969)	1962-1967
Varahagiri Venkata Giri (1894-1980)	1967-1969
Gopal Swarup Pathak (1896-1982)	1969-1974
B.D. Jatti (1912-2002)	1974-1979
Justice Mohammad Hidayatullah (1905-1992)	1979-1984
R. Venkataraman (1910-2009)	1984-1987
Dr Shankar Dayal Sharma (1918-1999)	1987-1992
K.R. Narayanan (1920-2005)	1992-1997
Krishan Kant (1927-2002)	1997-2002
Bhairon Singh Shekhawat (1923-2010)	2002-2007
Mohammed Hamid Ansari (b-1937)	2007-till date

1. Source : President of India website <http://presidentofindia.nic.in>

2. Source : Vice President of India website <http://vicepresidentofindia.nic.in>

PRIME MINISTERS OF INDIA³

Name	Tenure
Jawaharlal Nehru (1889-1964)	15 August 1947-27 May 1964
Gulzari Lal Nanda (1898-1998)	27 May 1964-9 June 1964 (Acting)
Lal Bahadur Shastri (1904-1966)	9 June 1964-11 January 1966
Gulzari Lal Nanda (1898-1998)	11 January 1966-24 January 1966 (Acting)
Indira Gandhi (1917-1984)	24 January 1966-24 March 1977
Morarji Desai (1896-1995)	24 March 1977-28 July 1979
Charan Singh (1902-1987)	28 July 1979-14 January 1980
Indira Gandhi (1917-1984)	14 January 1980-31 October 1984
Rajiv Gandhi (1944-1991)	31 October 1984-2 December 1989
Vishwanath Pratap Singh (1931-2008)	2 December 1989-10 November 1990
Chandra Shekhar (1927-2007)	10 November 1990-21 June 1991
P.V. Narasimha Rao (1921-2004)	21 June 1991-16 May 1996
Atal Bihari Vajpayee (b-1924)	16 May 1996-01 June 1996
H.D. Deve Gowda (b-1933)	01 June 1996-21 April 1997
I.K. Gujral (b-1933)	21 April 1997-19 March 1998
Atal Bihari Vajpayee (b-1924)	19 March 1998 -13 October 1999
Atal Bihari Vajpayee (b-1924)	13 October 1999 - 22 May 2004
Dr. Manmohan Singh (b-1932)	22 May 2004 - till date

CHIEF JUSTICES OF INDIA⁴

Name	Tenure
Harilal J. Kania	14 August 1947—6 November 1951
M. Patanjali Sastri	7 November 1951—3 January 1954
Mehar Chand Mahajan	4 January 1954—22 December 1954
B.K. Mukherjea	23 December 1954—31 January 1956
S.R. Das	1 February 1956—30 September 1959
Bhuvaneshwar Prasad Sinha	1 October 1959—31 January 1964
P.B. Gajendragadkar	1 February 1964—15 March 1966
A.K. Sarkar	16 March 1966—29 June 1966
K. Subba Rao	30 June 1966—11 April 1967
K.N. Wanchoo	12 April 1967—24 February 1968
M. Hidayatullah	25 February 1968—16 December 1970
I.C. Shah	17 December 1970—21 January 1971
S.M. Sikri	22 January 1971—25 April 1973
A.N. Ray	26 April 1973—28 January 1977
M.H. Beg	29 January 1977—21 February 1978
Y.V. Chandrachud	22 February 1978—11 July 1985

3. Source : Prime Minister's office website <http://pmindia.nic.in>

4. Source : Supreme Court of India website <http://www.supremecourtofindia.nic.in>

Prafullachandra	12 July 1985—20 December 1986
Natvarlal Bhagwati	
R.S. Pathak	21 December 1986—18 June 1989
E.S. Venkataramaiah	19 June 1989—17 December 1989
S. Mukherjee	18 December 1989—25 September 1990
Ranganath Mishra	25 September 1990—24 November 1991
K.N. Singh	25 November 1991—12 December 1991
M.H. Kania	13 December 1991—17 November 1992
I.M. Sharma	18 November 1992—11 February 1993
M.N. Venkatachalaiah	12 February 1993—24 October 1994
A.M. Ahmadi	25 October 1994—24 March 1997
J.S. Verma	25 March 1997—18 January 1998
M.M. Punchhi	18 January 1998—9 October 1998
A.S. Anand	10 October 1998—1 November 2001 (FN)
S.P. Bharucha	1 November 2001 (FN)—5 May 2002
B.N. Kirpal	6 May 2002—8 November 2002 (FN)
G.B. Pattanaik	8 November 2002(FN)—19 December 2002(FN)
V.N. Khare	19 December 2002(FN)—2 May 2004
S. Rajendra Babu	02 May 2004(FN)—1 June 2004 (FN)
R.C. Lahoti	01 June 2004(FN)—1 November 2005
Y.K. Sabharwal	01 November 2005(FN)—14 January 2007(FN)
K.G. Balakrishnan	14 January 2007(FN)—12 May 2010(FN)
S.H. Kapadia	12 May 2010(FN)—till date

CHIEF ELECTION COMMISSIONERS OF INDIA⁵

Name	Tenure
Sukumar Sen	21 March 1950-19 December 1958
K.V.K. Sundaram	20 December 1958-30 September 1967
S.P. Sen Verma	1 October 1967-30 September 1972
Dr Nagendra Singh	1 October 1972-6 February 1973
T. Swaminathan	7 February 1973-17 June 1977
S.L. Shaktihar	18 June 1977-17 June 1982
R.K. Trivedi	18 June 1982-31 December 1985
R.V.S. Peri Sastri	1 January 1986-25 November 1990
Smt V.S. Rama Devi	26 November 1990-11 December 1990
T.N. Seshan	12 December 1990-11 December 1996
M.S. Gill	12 December 1996-13 June 2001
J.M. Lyngdoh	14 June 2001 - 7 February 2004
T.S. Krishna Murthy	8 February 2004 - 15 May 2005
B.B. Tandon	16 May 2005 - 29 June 2006
N. Gopaldaswamy	30 June 2006 - 20 April 2009
Navin Chawla	21 April 2009 - 29 July 2010
S.Y. Quraishi	30 July 2010—till date

5. Source : http://en.wikipedia.org/wiki/chief_election_commissioner_of_india

CABINET SECRETARIES⁶

Cabinet Secretary	From	To
Shri N.R. Pillai	06-02-1950	13-05-1953
Shri Y.N. Sukthankar	14-05-1953	31-07-1957
Shri M.K. Vellodi	01-08-1957	04-06-1958
Shri Vishnu Sahay	01-07-1958	10-11-1960
Shri B.N. Jha	10-11-1960	08-03-1961
Shri Vishnu Sahay	09-03-1961	15-04-1962
Shri S.S. Khera	15-04-1962	18-11-1964
Shri Dharam Vira	18-11-1964	27-06-1966
Shri D.S. Joshi	27-06-1966	31-12-1968
Shri B. Sivaraman	01-01-1969	30-11-1970
Shri T. Swaminathan	01-12-1970	02-11-1972
Shri B.D. Pande	02-11-1972	31-03-1977
Shri N.K. Mukarji	31-03-1977	31-03-1980
Shri S.S. Grewal	02-04-1980	30-04-1981
Shri C.R. Krishnaswamy Rao	30-04-1981	08-02-1985
Shri P.K. Kaul	08-02-1985	22-08-1986
Shri B.G. Deshmukh	23-08-1986	27-03-1989
Shri T.N. Seshan	27-03-1989	23-12-1989
Shri V.C. Pande	23-12-1989	11-12-1990
Shri Naresh Chandra	11-12-1990	31-07-1992
Shri S. Rajgopal	01-08-1992	31-07-1993
Shri Zafar Saifullah	31-07-1993	31-07-1994
Shri Surendra Singh	01-08-1994	31-07-1996
Shri T.S.R. Subramaniam	01-08-1996	31-03-1998
Shri Prabhat Kumar	01-04-1998	31-10-2000
Shri T.R. Prasad	01-11-2000	31-10-2002
Shri Kamal Pande	01-11-2000	14-06-2004
Shri B.K. Chaturvedi	14-06-2004	13-06-2007
Shri K.M. Chandrasekhar	14-06-2007	Till date

6. Source : Cabinet Secretariat Website <http://cabsec.nic.in>

CHAIRMEN OF UPSC⁷

Name	Tenure
Sir Ross Barker	October, 1926-August 1932
Sir David Petrie	August 1932-1936
Sir Eyre Gorden	1937-1942
Sir F.W. Robertson	1942-1947
Sh. H.K. Kripalani	1 April 1947-13 January 1949
Sh. R.N. Banerjee	14 January 1949 - 9 May 1955
Sh. N. Govindarajan	10 May 1955 - 9 December 1955
Sh. V.S. Hejmadi	10 December 1955-9 December 1961
Sh. B.N. Jha	11 December 1961-22 February 1967
Sh. K.R. Damle	18 April 1967-2 March 1971
Sh. R.C.S. Sarkar	11 May 1971-1 February 1973
Dr. A.R. Kidwai	5 February 1973-4 February 1979
Dr. M.L. Shahare	16 February 1979(AN)-16 February 1985
Sh. H.K.L. Capoor	18 February 1985-5 March 1990
Sh. J.P. Gupta	5 March 1990(AN)-2 June 1992
Smt. R.M. Bathew (Kharbuli)	23 September 1992-23 August 1996
Sh. S.J.S. Chhatwal	23 August 1996(AN)-30 September 1996
Sh. J.M. Qureshi	30 September 1996(AN)-11 December 1998
Lt. Gen. (Retd.) Surinder Nath	11 December 1998(AN)-25 June 2002
Sh. P.C. Hota	25 June 2002(AN)-8 September 2003
Sh. Mata Prasad	8 September 2003(AN)-04 January 2005
Dr. S.R. Hashim	04 January 2005(AN)-01 April 2006
Sh. Gurbachan Jagat	01 April 2006(AN)-30 June 2007
Sh. Subir Datta	30 June 2006(AN)-16 August 2008
Prof. D.P. Agarwal	16 August 2008 (AN)-till date

CIVILIAN AWARDS

Bharat Ratna : The highest civilian award is given for exceptional service towards the advancement of Art, Literature and Science and in recognition of public service of the highest order. Since its inception in 1954, 41 persons have been decorated with Bharat Ratna so far. Details are given below :

RECIPIENTS OF BHARAT RATNA

Name	Awarded in
Chakravarti Rajagopalachari (1878-1972)	1954
Dr Sarvepalli Radhakrishnan (1888-1975)	1954

7. Source : Annual Report UPSC 2008-09, Appendix XLIV.

Dr Chandrasekhar Venkat Raman (1888-1970)	1954
Dr Bhagwan Das (1869-1958)	1955
Dr Mokshagundam Visvesvaraya (1861-1962)	1955
Jawaharlal Nehru (1889-1964)	1955
Govind Ballabh Pant (1887-1961)	1957
Dr Dhondo Keshave Karve (1858-1962)	1958
Dr Bidhan Chandra Roy (1882-1962)	1961
Purushottam Das Tandon (1882-1962)	1961
Dr Rajendra Prasad (1884-1963)	1962
Dr Zakir Hussain (1897-1969)	1963
Dr Pandurang Vaman Kane (1880-1972)	1963
Lal Bahadur Shastri (Posthumous) (1904-1966)	1966
Indira Gandhi (1917-1984)	1971
Varahagiri Venkata Giri (1894-1980)	1975
Kumaraswami Kamraj (Posthumous) (1903-1975)	1976
Mary Teresa Bojaxhiu (Mother Teresa) (1910-1997)	1980
Acharya Vinobha Bhave (Posthumous) (1895-1982)	1983
Khan Abdul Ghaffar Khan (1890-1988)	1987
Marudur Gopalan Ramachandran (Posthumous) (1917-1987)	1988
Dr Bhim Rao Ramji Ambedkar (Posthumous) (1891-1956)	1990
Dr Nelson Rolihlahla Mandela (b-1918)	1990
Rajiv Gandhi (Posthumous) (1944-1991)	1991
Sardar Vallabhbhai Patel (Posthumous) (1875-1950)	1991
Morarji Ranchhodji Desai (1896-1995)	1991
Maulana Abul Kalam Azad (Posthumous) (1888-1958)	1992
Jehangir Ratanji Dadabhai Tata (1904-1993)	1992
Satyajit Ray (Posthumous) (1922-1992)	1992
Gulzari Lal Nanda (Posthumous) (1898-1997)	1997
Aruna Asaf Ali (Posthumous) (1909-1996)	1997
Dr Avul Pakir Jainulabdeen Abdul Kalam (b-1931)	1997
Madurai Sanmukhavadiivu Subbulakshmi (1916-2004)	1998
Chidambaram Subramaniam (1910-2000)	1998
Loknayak Jayaprakash Narayan (Posthumous) (1902-1979)	1999
Professor Amartya Sen (b-1933)	1999
Lokpriya Gopinath Bordoloi (Posthumous) (1890-1950)	1999
Pandit Ravi Shankar (b-1920)	1999
Sushri Lata Dinanath Mangeshkar (b-1929)	2001
Ustad Bismillah Khan (1916-2006)	2001
Pandit Bhimsen Gururaj Joshi (b-1922)	2009

Padma awards : Padma awards are amongst the highest civilian awards of the country. There are three categories of Padma Awards - 'Padma Vibhushan', 'Padma Bhushan' and 'Padma Shri'. These are given for distinguished service in any field including Art, Literature and Education, Science and Engineering, Sports, Medicine, etc. Padma Awards are announced on the eve of the Republic Day every year.

PADMA AWARDS CONFERRED ON REPUBLIC DAY 2010

- Padma Vibhushan Recipients** : Shri Ebrahim Hamed Alkazi
 Dr. Prathap Chandra Reddy
 Dr. Umayalpuram K. Sivaraman
 Dr. Venkatraman Ramakrishnan
 Dr. Yaga Venugopal Reddy
 Smt. Zohra Segal
- Padma Bhushan Recipients** : Shri A.R. Rahman
 Shri Aamir Khan
 Prof. Abhijit Sen
 Shri Akbar Padamsee
 Shri Anil Bordia
 Prof. Arogyaswami Joseph Paulraj
 Shri Bal Krishna Chaturvedi
 Dr. Balagangadharanatha Swamiji
 Prof. Belle Monappa Hegde
 Prof. Bikash Sinha
 Prof. Bipan Chandra
 Capt. C.P. Krishnan Nair
 Pandit Chhannulal Mishra
 Ashtavaidyan E.T. Narayanan Mooss
 Shri Eknathrao Vithalrao alias Balasaheb Vikhe Patil
 Dr. Fareed Rafiq Zakaria
 Shri Gian Parkash Chopra
 Shri Ilaiyaraaja
 Shri Jagdish Chandra Kapur
 Smt. Kumudini Lakhia
 Shri Kashal Pal Singh
 Shri Kuzhur Narayana Marar
 Prof. Madhusudan Amilal Dhaky
 Dr. Mallika V. Sarabhhai
 Shri Manvinder (Vindi) Singh Banga
 Prof. Mohammad Amin

Shri Moosa Raza
 Shri Narayanan Vaghul
 Dr. Nookala Chinna Satyanarayana
 Dr. Noshir Minoo Shroff
 Dr. Padmakar Ramchandra Dubhashi
 Dr. Panniyampally Krishna Warriar
 Dr. Pandit Puttaraj Kavi Gavaigalavaru
 Shri Ram Kumar
 Dr. Ramakanta Madanmohan Panda
 Shri Sailesh Kumar Bandyopadhyay
 Shri Sant Singh Chatwal
 Dr. Satya Paul Agarwal
 Prof. Satya Vrat Shastri
 Shri Shrinivas Vinayak Khale
 Shri Shripaul Oswal
 Ustad Sultan Khan
 Prof. Tan Chung

Padma Shri Recipients

: Dr. Alluri Venkata Satyanarayana Raju
 Dr. Anil Kumar Bhalla
 Smt. Anu Aga
 Shri Arjun Prajapati
 Shri Arun Sarma
 Smt. Arundhati Nag
 Prof. Arvind Kumar
 Dr. Arvinder Singh Soin
 Shri Ayekpam Tomba Meetei
 Dr. B. Ramana Rao
 Ms. Bertha Gyndykes Dkhar
 Ms. Bertha Gyndykes Dkhar
 Ms. Carmel Berkson
 Shri D.R. Kaarthekeyan
 Shri Deep Chandra Joshi
 Shri Deepak Puri
 Ustad Faiyaz Wasifuddin Dagar
 Prof. Govind Chandra Pande
 Smt. Gul Bardhan
 Shri Gulam Mohammad Mir
 Prof. Hamidi Kashmiri

Smt. Haobam Ongbi Ngangbi Devi
Shri Hari Uppal
Prof. Hermann Kulke
Shri Ignace Tirkey
Shri Irshad Mirza
Dr. J.R. Krishnamoorthy
Dr. Jawaharlal Rijhumal Gangaramani
Dr. Jitendra Udhamपुरी
Shri K. Raghavan
Dr. K.K. Aggarwal
Brig. (Dr.) Kapil Mohan
Dr. Karsanbhai Khodidas Patal
Dr. Kodaganur S. Gopinath
Shri Kranti Shah
Shri Kumar Ram Narain arthikeyan
Dr. Kurian John Melamparambil
Dr. Lal Bahadur Singh Chauhan
Shri Lalzuia Colney
Dr. Laxmi Chand Gupta
Prof. M.R. Satyanarayana Rao
Dr. Maria Aurora Couto
Guru Mayadhar Raut
Dr. Mukund Lath
Shri Nema Ghosh
Prof. (Dr.) Palpu Pushpangadan
Dr. Philip Augustine
Prof. Pucadyil Ittoop John
Dr. Rabindra Narain Singh
Dr. Rafael Iruzubieta Fernandez
Pandit Raghunath Panigrahi
Shri Rajkumar Achouba Singh
Dr. Ram Dayal Munda
Shri Ramakant Vithal Achrekar
Prof. Ramaranjan Mukherji (Posthumous)
Dr. Ranganathan Parthasarathy (Indira Parathasarathy)
Dr. Ranjit Bhargava
Dr. Ravi Pillai
Ms. Rekha Ganeshan

Shri Resul Pookutty
 Ef. Romuald D'Souza
 Prof. Sadiq-ur-Rahman Kidwai
 Shri Saif Ali Khan Pataudi
 Ms. Saina Nehwal
 Baba Sewa Singh
 Prof. Sheldon Pollock
 Dr. Shobha Raju
 Dr. Sudha Kaul
 Dr. Sudhir M. Parikh
 Smt. Sumitra Guha
 Dr. Surendra Dubey
 Shri T.N. Manoharan
 Pandit Ulhas Kashailkar
 Shri Venu Srinivasan
 Dr. Vijay Prasad Dimri
 Prof. Vijayalakshmi Ravindranath
 Shri Vijender Singh
 Dr. Vikas Haribhau Mahatme
 Shri Virender Sehwag
 Dr. (Smt.) Y.G. Rajalakshmi Parthasarathy

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JEEVAN RAKSHA PADAK SERIES OF AWARDS

The Jeevan Raksha Padak series of awards are given for courage and promptitude under circumstances of great danger to the life or bodily injury of the rescuer, displayed in an act or a series of acts of humane nature, in saving the life of a person from drowning, fire, rescue operations in mines, etc. There are three categories of Jeevan Raksha Padak awards viz. Sarvottam Jeevan Raksha Padak, Uttam Jeevan Raksha Padak and Jeevan Raksha Padak. Recommendations for Jeevan Raksha Padak series of awards are received from the State Governments/Union Territory Administrations and Ministries/Departments of the Government of India. On the basis of the recommendations of the Awards Committee, the President approved the award of Uttam Jeevan Raksha Padak, Jeevan Raksha Padak and Sarvottam Jeevan Raksha Padak every year. Details of Jeevan Raksha Padak Series of Awards are given below:

Sarvottam Jeevan Raksha Padak

1. Shri Narender Kaushik (Posthumous)
2. Miss Rukhsana Kossier

Uttam Jeevan Raksha Padak

1. Shri Syed Areef Sujauddin, (Posthumous)

2. Shri Mushtaq Ahmed
3. Shri Umman Antony (Posthumous)
4. Shri Karambir Singh Kang
5. Shri Rajan Kamble (Posthumous)
6. Shri Ajaz Ahmed
7. Kumari Prachi Santosh Sen

Jeevan Raksha Padak

1. Shri Bali Ram
2. Shri Layak Ram
3. Smt. Rukasana Banu
4. Shri P.P. Sikhil
5. Shri P. Rajasekharan
6. Smt. Sreeja V.V.
7. Shri Faseeb K.
8. Shri Thahir
9. Kumari Vijishna K.R.
10. Shri Hemant Talim, (Posthumous)
11. Shri Boris Mario Do Rego, (Posthumous)
12. Shri Kaizad Noshir Kamdin, (Posthumous)
13. Shri Anil Dattatray Damankar
14. Miss Mallika Jagad
15. Shri Philip Rodrigues
16. Shri Purunanand Petwal
17. Shri Sadanand Patil (Posthumous)
18. Shri Sunil Kudyadi
19. Shri Thomas Varghese (Posthumous)
20. Shri Vijay Banja Rao (Posthumous)
21. Miss Silver Kharbani
22. Shri Lianchia
23. Shri Joseph Vanlalhruaia
24. Shri Gurdial Singh
25. Shri Zaheen Mateen (Posthumous)
26. Kumari Ranu (Posthumous)
27. Shri Purshottam Kashyap

28. Shri Subhash Chandra Meena
29. Shri G. Raj Mohan
30. Shri Mohinder Singh (Posthumous)
31. Shri Narendra Prasad, (Posthumous)
32. Shri Satender Singh
33. Shri Bhishma Singh Bargah
34. Kumari Saraswati Dewangan
35. Kumari Manjusha A.
36. Shri Magesh A.
37. Shri Johnson V. Sunny
38. Kumari Dinu K.G.
39. Shri Vineeth Kumar M.U.
40. Shri Yumkhaibam Addison Singh
41. Shri Shahanshah
42. Kumari Hina Quereshi
43. Shri Vishal Suryaji Patil
44. Shri Medaplang Dkhar

SAHITYA AKADEMI AWARDS 2009

Language	Title and Genre	Author
Assamese	Katha Ragnakar (Novel)	Dhrubajyoti Bora
Bengali	Keno Amra Rabindranathke Chai ebang Kibhabe (Essays)	Sourin Bhattacharya
Bodo	Dainee (Novel)	(late) Manoranjan Lahary
Dogri	Geet Sarovar (Poetry)	Praduman Singh Jindrahia
English	The Mahabharata : An Inquiry in the Human Condition (Criticism)	Chaturvedi Badrinath
Gujarati	Vaat Aapna Vivechanani (Criticism)	Shirish Panchal
Hindi	Hawa Mein Hastakshar (Poetry)	Kailash Vajpeyi
Kannada	Krouncha Pakshigalu (Short Stories)	Vaideshi
Kashmiri	Vont (Criticism)	Mashal Sultanpuri
Konkani	Kirvontt (Poetry)	Jess Fernandes
Maithili	Ganga-Putra (Short Stories)	(late) Manmohan Jha
Malayalam	Thrikkottoor Novellakal (Novel)	U.A. Khadar
Manipuri	Khungangi Chithi (Poetry)	Raghu Leishangthem
Marathi	Chitralipi (Poetry)	Vasant Abajhi Dahke
Nepali	Gairigaoki Chameli (Short Stories)	Samiran Chhetri 'Priyadarshi'

Oriya	Mrugaya (Poetry)	Phani Mohanty
Punjabi	Tatti Tavi Da Sach (Play)	Atamjit
Rajasthani	Mai Elda Poot Jan (Short Stories)	Major Ratan Jangid
Sanskrit	Anabheepsitam (Short Stories)	Prashasya Mitra Shastri
Santhali	Say Sahed (Poetry)	Damayanti Beshra
Sindhi	Rishtan Jee Siyaasat (Short Stories)	Anand Khemani
Tamil	Kaiyoppam (Poetry)	Puviarasu
Telugu	Draupadi (Novel)	Yariagadda Laxmi Prasad
Urdu	Maasir Tanqudi Rawayyay (Criticism)	Abdul Kalam Qasimi

NOBEL LAUREATES

AMARTYA SEN (b-1933) : Prof. Amartya Sen is the recipient of the Nobel Prize for Economics for the year 1998, becoming the first Asian to have been honoured with the award. The Santiniketan-born economist who is a pioneer in Welfare Economics has to his credit several books and papers on aspects of welfare and development. An economist with a difference, Prof. Sen is a humanist. He has distinguished himself with his outstanding writings on famine, poverty, democracy, gender and social issues. The 'impossibility theorem' suggested earlier by Kenneth Arrow states that it was not possible to aggregate individual choices into a satisfactory choice for society as a whole. Prof. Sen showed mathematically that societies could find ways to alleviate such a poor outcome.

SUBRAMANIAN CHANDRASHEKHAR (1910-1995) : The Nobel Prize for Physics in 1983 was awarded to Dr S. Chandrashekhhar, an Indian-born astrophysicist. Educated in Presidency College, Chennai, Dr Chandrashekhhar happened to be the nephew of his Nobel forbear, Sir C.V. Raman. He later migrated to the United States where he authored several books on Astrophysics and Stellar Dynamics. He developed a theory on white dwarf stars which posts a limit of mass of dwarf stars known also as Chandrashekhhar Limit. His theory explains the final stages of stellar evolution.

MOTHER TERESA (1910-1997) : The Nobel Peace Prize was awarded to Mother Teresa in 1979. Albanian parentage, Agnes Gonxha Bojaxhiu was born at Skopje, now in Yugoslavia. She joined the Irish order of the Sisters of Loretto at Dublin in 1928 and came to Kolkata in 1929 as a missionary, only to find the misery of the abandoned and the destitute. Concern for the poor and the sick prompted her to found a new congregation, Missionaries of Charity. Having become an Indian citizen, Mother Teresa served the cause of dying destitutes, lepers and drug addicts, through *Nirmal Hriday* (meaning Pure Heart), the main centre of her activity. Her selfless service and unique devotion, not only to helpless fellow-Indians but also to the cause of world peace, earned her and India the first Nobel Peace Prize.

HARGOBIND KHORANA (b. 1922) : Hargobind Khorana was awarded the Nobel Prize for Medicine in 1968. Of Indian origin, Dr Khorana was born in Raipur, Punjab (now in Pakistan). He took his doctoral degree in Chemistry from Liverpool University and joined the University of Wisconsin as a Faculty Member in 1960. His major breakthrough in the field of Medicine —interpreting the genetic code and analysing its function in protein synthesis — fetched him the Nobel Prize.

CHANDRASHEKHAR VENKATARAMAN (1888-1970) : India's first Nobel Prize for Physics was claimed in 1930 by the renowned physicist Sir C.V. Raman. Born at Thiruvanaikkaval near Tiruchirapalli in Tamilnadu, Raman studied at Presidency College, Chennai. Later, he served as Professor of Physics at Calcutta University. Recipient of many honours and awards, including the title of 'Sir', Sir C.V. Raman received the Nobel Prize for an important optics research, in which he discovered that diffused light contained rays of other wavelengths—what is now popularly known as Raman Effect. His theory discovered in 1928 explains the change in the frequency of light passing through a transparent medium.

RABINDRANATH TAGORE (1861-1941) : Rabindranath Tagore was the first Indian ever to receive a Nobel Prize. Popularly known as *Gurudev*, India's Poet Laureate Tagore was born on 7th May 1861 in Kolkata. He was awarded the Nobel Prize for Literature in recognition of his work *Geetanjali*, a collection of poems, in 1913. Tagore wrote many love lyrics. *Geetanjali* and *Sadhana* are among his important works. The poet, dramatist and novelist is also the author of India's National Anthem. In 1901 he founded the famous Santiniketan which later came to be known as Vishwabharati University.

COMMANDERS-IN-CHIEF

Name	Tenure
General Sir Roy Bucher	1 January 1948-14 January 1949
General (later Field Marshal) K.M. Cariappa.....	15 January 1949-14 January 1953
General Maharaj Rajendra Sinhji.....	15 January 1953-31 March 1955

CHIEFS OF ARMY STAFF

Name	Tenure
General Maharaj Rajendra Sinhji	1 April 1955-14 May 1955
General S.M. Srinagesh	15 May 1955-7 May 1957
General K.S. Thimayya.....	8 May 1957-7 May 1961
General R.N. Thapar	8 May 1961-19 November 1962
General J.N. Choudhuri	20 November 1962-7 June 1966
General P.P. Kumaramangalam	8 June 1966-7 June 1969
General S.H.F.J. Manekshaw	8 June 1969-31 December 1972
Field Marshal S.H.F.J. Manekshaw	1 January 1973-14 January 1973
General G.G. Bewoor	15 January 1973-31 May 1975
General T.N. Raina	1 June 1975-31 May 1978
General O.P. Malhotra	1 June 1978-31 May 1981
General K.V. Krishna Rao	1 June 1981-31 July 1983
General A.S. Vaidya	1 August 1983-31 January 1986
General K. Sunderji	1 February 1986-30 April 1988
General V.N. Sharma	1 May 1988-30 June 1990
General S.F. Rodrigues	1 July 1990-30 June 1993
General B.C. Joshi	1 July 1993-18 November 1994
General S. Roychowdhury	22 November 1994-30 September 1997
General V.P. Malik	1 October 1997-30 September 2000
General S. Padmanabhan	30 September 2000-31 December 2002
General N.C. Vij	1 January 2003-31 January 2005
General J.J. Singh	1 February 2005 - 30 September 2007
General Deepak Kapoor	30 September 2007-31 March 2010
General V.K. Singh	1 April 2010 - till date

CHIEFS OF NAVAL STAFF

Name	Tenure
Rear Admiral J.T.S. Hall	15 August 1947-14 August 1948
Admiral Sir Edward Parry	15 August 1948-13 October 1951
Admiral Sir Mark Pizey	14 October 1951-21 July 1955
Vice Admiral Sir Stephen Carlill	22 July 1955-21 April 1958
Vice Admiral R.D. Katari	22 April 1958-4 June 1962
Vice Admiral B.S. Soman	5 June 1962-3 March 1966
Admiral A.K. Chatterjee	4 March 1966-27 February 1970
Admiral S.M. Nanda	28 February 1970-28 February 1973
Admiral S.N. Kohli	1 March 1973-28 February 1976
Admiral J.L. Cursetji	1 March 1976-28 February 1979
Admiral R.L. Pereira	1 March 1979-28 February 1982
Admiral O.S. Dawson	1 March 1982-30 November 1984
Admiral R.H. Tahiliani	1 December 1984-30 November 1987
Admiral J.G. Nadkarni	1 December 1987-30 November 1990
Admiral L. Ramdas	1 December 1990-30 September 1993
Admiral V.S. Shekhawat	1 October 1993-30 September 1996
Admiral Vishnu Bhagwat	1 October 1996-30 December 1998
Admiral Sushil Kumar	31 December 1998 - 29 December 2001
Admiral Madhvendra Singh	29 December 2001 - 31 July 2004
Admiral Arun Prakash	1 August 2004 - 30 October 2006
Admiral Sureesh Mehta	30 October 2006 - 31 August 2009
Admiral Nirmal Verma	1 September 2009-till date

CHIEFS OF AIR STAFF

Name	Tenure
Air Marshal Sir Thomas Elmhirst	15 August 1947-21 February 1950
Air Marshal Sir Ronald Chapman	22 February 1950-9 December 1951
Air Marshal Sir Gerald Gibbs	10 December 1951-31 March 1954
Air Marshal S. Mukherjee	1 April 1954-8 November 1960
Air Marshal A.M. Engineer	1 December 1960-31 July 1964
Air Chief Marshal Arjan Singh	1 August 1964-15 July 1969
Air Chief Marshal P.C. Lal	16 July 1969-15 January 1973
Air Chief Marshal O.P. Mehra	16 January 1973-31 January 1976

Air Chief Marshal H. Moolgavkar	1 February 1976-31 August 1978
Air Chief Marshal I.H. Latif	1 September 1978-31 August 1981
Air Chief Marshal Dilbagh Singh	1 September 1981-4 September 1984
Air Chief Marshal L.M. Katre	5 September 1984-1 July 1985
Air Chief Marshal D.A. La Fontaine	3 July 1985-31 July 1988
Air Chief Marshal S.K. Mehra	1 August 1988-31 July 1991
Air Chief Marshal N.C. Suri	1 August 1991-31 July 1993
Air Chief Marshal S.K. Kaul	1 August 1993-31 December 1995
Air Chief Marshal S.K. Sareen	1 January 1996-31 December 1998
Air Chief Marshal A.Y. Tipnis	1 January 1999-31 December 2001
Air Chief Marshal S. Krishnaswamys	31 December 2001-31 December 2004
Air Chief Marshal S. P. Tyagi	31 December 2004-31 March 2007
Air Chief Marshal M.F. Major	31 March 2007-31 August 2009
Air Chief Marshal Pradeep Vasant Naik	1 June 2009-till date

WINNERS OF PARAM VIR CHAKRA

Major Somnath Sharma, Kumaon Regiment
Posthumous-November 1947 (Kashmir Operations 1947-48)

2nd Lt. R.R. Rane, Corps of Engineers
April 1948 (Kashmir Operations 1947-48)

Company Havaldar Major Piru Singh, Rajputana Rifles
Posthumous-July 1948 (Kashmir Operations 1947-48)

L/NK Karam Singh, Sikh Regiment
October 1948 (Kashmir Operations 1947-48)

Naik Jadunath Singh, Rajput Regiment
Posthumous-December 1948 (Kashmir Operations 1947-48)

Captain Gurbachan Singh Salaria, Gorkha Rifles
Posthumous-December 1961 (Congo)

Major Dhan Singh Thapa, Gorkha Rifles
October 1962 (Ladakh)

Subedar Joginder Singh, Sikh Regiment
Posthumous-October 1962 (NEFA)

Major Shaitan Singh, Kumaon Regiment
Posthumous-November 1962 (Ladakh)

CQMH Abdul Hamid, Grenadiers
Posthumous-September 1965 (Operation against Pakistan)

Lt. Col. A.B. Tarapore, Poona Horse
Posthumous-September 1965 (Operation against Pakistan)

Flg. Officer Nirmal Jit Singh Sekhon, Flg. Pilot
Posthumous-December 1971 (Indo-Pakistan conflict)

Major Hoshiar Singh, Grenadiers
December 1971 (Indo-Pakistan conflict)

2nd Lt. Arun Khetarpal, 17 Poona Horse
Posthumous-December 1971 (Indo-Pakistan conflict)

L/NK Albert Ekka, Brigade of Guards
Posthumous-December 1971 (Indo-Pakistan conflict)

Naib Subedar Bana Singh, J & K Light Infantry
June 1987 (Operations in Siachen Glacier)

Major Ramaswamy Parameswaran, Mahar Regiment,
Posthumous-November 1987 (IPKF Operations in Sri Lanka)

Capt Vikram Batra, 13 JAK Rif
Posthumous-June 1999 (OP Vijay in Kargil)

Lt Manoj Kumar Pandey, 1/11 GR
Posthumous-June 1999 (OP Vijay in Kargil)

Rifleman Sanjay Kumar, 13 JAK Rif
June 1999 (OP Vijay in Kargil)

Gdr Yogender Singh Yadav, 18 GDRS
June 1999 (OP Vijay in Kargil)

GALLANTRY AWARDS

The following Gallantry Awards were announced on the Republic Day, 2010:

Award	Total	Posthumous
<i>Ashok Chakra</i>	1	1
<i>Kirti Chakra</i>	6	3
<i>Shaurya Chakra</i>	26	8
<i>Bar to Sena Medal/Nao Sena Medal/Vayu Sena Medal (Gallantry)</i>	3	-
<i>Sena Medal/Nao Sena Medal/Vayu Sena Medal (Gallantry)</i>	124	9
<i>Param Vishisht Seva Medal</i>	28	-
<i>Bar to Ati Vishisht Seva Medal</i>	1	-
<i>Ati Vishisht Seva Medal</i>	50	-
<i>Uttam Yudh Seva Medal</i>	4	-
<i>Yudh Seva Medal</i>	16	-
<i>Bar to Vishisht Seva Medal</i>	2	-
<i>Vishisht Seva Medal</i>	119	-
<i>Bar to Sena Medal (Devotion to Duty)</i>	2	-
<i>Sena Medal/Nao Sena Medal Vayu Sena Medal (Devotion to duty)</i>	60	2

The following Gallantry Awards were announced on the Independence Day, 2008

Award	Total	Posthumous
<i>Ashok Chakra</i>	1	1
<i>Kirti Chakra</i>	2	2

<i>Bar to Shaurya Chakra</i>	2	-
<i>Shaurya Chakra</i>	19	5
<i>Bar to Sena Medal (Gallantry)</i>	2	-
<i>Sena Medal (Gallantry)</i>	80	5
<i>Nao Sena Medal (Gallantry)</i>	3	-
<i>Vayu Sena Medal (Gallantry)</i>	5	-

LIST OF STATE-WISE NATIONAL HIGHWAYS IN THE COUNTRY⁸

Sl. No.	Name of State	National Highway No.	Total Length (in km)
1	Andhra Pradesh	4, 5, 7, 9, 16, 18, 43, 63, 202, 205, 214, 214A, 219, 221 & 222	4472
2	Arunachal Pradesh	52, 52A & 153	392
3	Assam	31, 31B, 31C, 36, 37, 37A, 38, 39, 44, 51, 52, 52A, 52B, 53, 54, 61, 62, 151, 152, 153 & 154	2836
4	Bihar	2, 2C, 19, 28, 28A, 28B, 30, 30A, 31, 57, 57A, 77, 80, 81, 82, 83, 84, 85, 98, 99, 101, 102, 103, 104, 105, 106, 107 & 110	3642
5	Chandigarh	21	24
6	Chhattisgarh	6, 12A, 16, 43, 78, 111, 200, 202, 211, 216 and 217	2184
7	Delhi	1, 2, 8, 10 & 24	72
8	Goa	4A, 17, 17A & 17B	269
9	Gujarat	NE-I, 6, 8, 8A, 8B, 8C, 8D, 8E, 14, 15, 59, 113 & 228	3245
10	Haryana	1, 2, 8, 10, 21A, 22, 64, 65, 71, 71A, 71B, 72, 73, 73A, & NE-III1512	1512
11	Himachal Pradesh	1A, 20, 21, 21A, 22, 70, 72, 73A & 88	1208
12	Jammu & Kashmir	1A, 1B, 1C & 1D	1245
13	Jharkhand	2, 6, 23, 31, 32, 33, 75, 78, 80, 98, 99 & 100	1805
14	Karnataka	4, 4A, 7, 9, 13, 17, 48, 63, 67, 206, 207, 209, 212 & 218	3843
15	Kerala	17, 47, 47A, 47C, 49, 208, 212, 213, & 220	1457
16	Madhya Pradesh	3, 7, 12, 12A, 25, 26, 26A, 27, 59, 59A, 69, 75, 76, 78, 86 & 92	4670
17	Maharashtra	3, 4, 4B, 4C, 6, 7, 8, 9, 13, 16, 17, 50, 69, 204, 211 & 222	4176
18	Manipur	39, 53, 150 & 155	959
19	Meghalaya	40, 44, 51 & 62	810
20	Mizoram	44A, 54, 54A, 54B, 150 & 154	927
21	Nagaland	36, 39, 61, 150 & 155	494
22	Orissa	5, 5A, 6, 23, 42, 43, 60, 75, 200, 201, 203, 203A, 215, 217 & 224	3704
23	Puducherry	45A & 66	53
24	Punjab	1, 1A, 10, 15, 20, 21, 22, 64, 70, 71, 72 & 95	1557
25	Rajasthan	3, 8, 11, 11A, 11B, 11C, 12, 14, 15, 65, 71B, 76, 79, 79A, 89, 90, 112, 113, 114 & 116	5585

8. Source : Ministry of Road Transport and Highways Website <http://morth.nic.in/statedetailsmain.asp>

26	Sikkim	31A	62
27	Tamilnadu	4, 5, 7, 7A, 45, 45A, 45B, 45C, 46, 47, 47B, 49, 66, 67, 68, 205, 207, 208, 209, 210, 219, 220, 226 & 227	4462
28	Tripura	44 & 44A	400
29	Uttar Pradesh	2, 2A, 3, 7, 11, 12A, 19, 24, 24A, 24B, 25, 25A, 26, 27, 28, 28B, 28C, 29, 56, 56A, 56B, 58, 72A, 73, 74, 75, 76, 86, 87, 91, 91A, 92, 93 ,96, 97 , 119 & NE-II	5874
30	Uttarakhand	58, 72, 72A, 73, 74, 87, 94, 108, 109, 121, 123 & 125	1991
31	West Bengal	2, 2B, 6, 31, 31A, 31C, 31D, 32, 34, 35, 41, 55, 60, 60A, 80, 81 &117	2524
32	Andaman & Nicobar	223	300
	Total		66754

AMENDMENTS TO THE CONSTITUTION

1. *The Constitution (First Amendment) Act, 1950*—This amendment provided for several new grounds of restrictions to the right to freedom of speech and expression and the right to practise any profession or to carry on any trade or business as contained in Article 19 of the Constitution. These restrictions related to public order, friendly relations with foreign States or incitement to an offence in relation to the right to freedom of speech, and to the prescribing of professional or technical qualifications or the carrying on by the State, etc., of any trade, business, industry or service in relation to the right to carry on any trade or business. The amendment also inserted two new Articles, 31A and 31B and the Ninth Schedule to give protection from challenge to land reform laws.

2. *The Constitution (Second Amendment) Act, 1952*—By this amendment, the scale or representation for election to the Lok Sabha was readjusted.

3. *The Constitution (Third Amendment) Act, 1954*—This amendment substituted entry 33 of List III (Concurrent List) of the Seventh Schedule to make it correspond to Article 369.

4. *The Constitution (Fourth Amendment) Act, 1955*—Article 31 (2) of the Constitution was amended to re-state more precisely the State's power of compulsory acquisition and requisitioning of private property and distinguish it from cases where the operation of regulatory or prohibitory laws of the States results in "deprivation of property". Article 31A of the Constitution was also amended to extend its scope to cover categories of essential welfare legislation like abolition of zamindaris, proper planning of urban and rural areas and for effecting a full control over the mineral and oil resources of the country, etc. Six Acts were also included in the Ninth Schedule. Article 305 was also amended to save certain laws providing of State Monopolies.

5. *The Constitution (Fifth Amendment) Act, 1955*—This amendment made a change in Article 3 so as to empower President to specify a time limit for state legislatures to convey their views on the proposed Central laws affecting areas, boundaries, etc., of their states.

6. *The Constitution (Sixth Amendment) Act, 1956*—This amendment made some changes in Articles 269 and 286 relating to taxes on sale and purchase of goods in the course of inter-state trade and commerce. A new entry 92 A was added to the Union List of the Seventh Schedule to the Constitution.

7. *The Constitution (Seventh Amendment) Act, 1956*—This amendment Act purported to give effect to the recommendations of the State Reorganisation Commission and the necessary consequential changes. Broadly, the then existing states and territories were changed to have two-fold classification of states and union territories. The amendment also provided for composition of the House of the People, re-adjustment after every census, provisions regarding the establishment of new High Courts, High Court Judges, etc.

8. *The Constitution (Eighth Amendment) Act, 1960*—Article 334 was amended with a view to extending the period of reservation of seats for Scheduled Castes and Scheduled Tribes and to the Anglo-Indian community by nomination in Parliament and in the State Legislatures for a further period of ten years.

9. *The Constitution (Ninth Amendment) Act, 1960*—The purpose of this amendment is to give effect to the transfer of certain territories to Pakistan in pursuance of the agreement extended into between Governments of India and Pakistan. This amendment was necessitated in view of the Judgment of Supreme Court in *In Re Berubari Union* by which it was held that any agreement to cede a territory to another country could not be implemented by a law made under Article 3 but would only be implemented by an amendment of the Constitution.
10. *The Constitution (Tenth Amendment) Act, 1961*—This Act amended Article 240 and the First Schedule in order to include areas of Dadra and Nagar Haveli as a Union Territory and to provide for its administration under the regulation making powers of President.
11. *The Constitution (Eleventh Amendment) Act, 1961*—The purpose of this amendment was to amend Articles 66 and 71 of the Constitution to provide that the election of President or Vice President could not be challenged on the ground of any vacancy in the appropriate electoral college.
12. *The Constitution (Twelfth Amendment) Act, 1962*—This amendment sought to include Goa, Daman and Diu as a Union Territory and to amend Article 240 for the purpose.
13. *The Constitution (Thirteenth Amendment) Act, 1962*—By this amendment, a new Article 371A was added to make special provisions with respect to state of Nagaland in pursuance of an agreement between Government of India and Naga People's Convention.
14. *The Constitution (Fourteenth Amendment) Act, 1962*—By this Act, Pondicherry was included in the First Schedule as a Union Territory, and this Act has also enabled the creation of Legislature by Parliamentary law for Himachal Pradesh, Manipur, Tripura, Goa, Daman and Diu and Pondicherry.
15. *The Constitution (Fifteenth Amendment) Act, 1963*—This amendment provided for increase in the age of retirement of High Court Judge and for the provision of compensatory allowance to judges who are transferred from one High Court to another. The Act also provided for appointment of retired judges to act as judges of High Court. Article 226 was also enlarged to empower High Court to issue direction, orders or writs to any Government authority, etc., if the cause of action for the exercise of such power arose in the territories wherein the High Court exercise jurisdiction notwithstanding that seat of such Government authority is not within those territories. The Act also provided for the exercise of powers of Chairman of the Service Commissions, in their absence, by one of their Members.
16. *The Constitution (Sixteenth Amendment) Act, 1963*—Article 19 was amended by this Act to impose further restriction on the rights to freedom of speech and expression, to assemble peaceably and without arms and to form associations in the interests of sovereignty and integrity of India. The oath of affirmation to be subscribed by candidates seeking election to Parliament and State Legislatures have been amended to include as one of the conditions that they will uphold the sovereignty and integrity of India. The amendments are intended to promote national integration.
17. *The Constitution (Seventeenth Amendment) Act, 1964*—Article 31A was further amended to prohibit the acquisition of land under personal cultivation unless the market value of the land is paid as compensation and the definition of "estate" as contained in that Article had also been enlarged with retrospective effect. The Ninth Schedule had also been amended to include 44 more Acts.
18. *The Constitution (Eighteenth Amendment) Act, 1966*—Article 3 was amended by this Act to specify that the expression "State" will include a union territory also and to make it clear that the power to form a new state under this Article includes a power to form a new state or union territory by uniting a part of a state or a union territory to another state or union territory.
19. *The Constitution (Nineteenth Amendment) Act, 1966*—Article 324 was amended to effect a consequential change as a result of the decision to abolish Election Tribunals and to hear election petitions by High Courts.
20. *The Constitution (Twentieth Amendment) Act, 1966*—This amendment was necessitated by the decision of the Supreme Courts in *Chandramohan vs. State of Uttar Pradesh* in which certain appointments of District Judges in State of Uttar Pradesh were declared void by Supreme Court. A new Article 233A was added and the appointments made by Governor were validated.
21. *The Constitution (Twenty-first Amendment) Act, 1967*—By this amendment, Sindhi Language was included in the Eighth Schedule.

22. *The Constitution (Twenty-second Amendment) Act, 1969*—This act was enacted to facilitate the formation of a new autonomous state of Meghalaya within state of Assam.
23. *The Constitution (Twenty-third Amendment) Act, 1969*—Article 334 was amended so as to extend the safeguards in respect of reservation of seats in Parliament and State Legislatures for Schedules Castes and Scheduled Tribes as well as for Anglo-Indians for a further period of ten years.
24. *The Constitution (Twenty-fourth Amendment) Act, 1971*—This amendment was passed in the context of a situation that emerged with the verdict in Golaknath's case by Supreme Court. Accordingly, this Act amended Article 13 and Article 368 to remove all doubts regarding the power of Parliament to amend the Constitution including the Fundamental Rights.
25. *The Constitution (Twenty-fifth Amendment) Act, 1971*—This amendment further amended Article 31 in the wake of the Bank Nationalisation case. The word 'amount' was substituted in place of 'compensation' in the light of the judicial interpretation of the word 'compensation' meaning 'adequate compensation'.
26. *The Constitution (Twenty-sixth Amendment) Act, 1971*—By this amendment, the privy and privileges of the former rulers of Indian states were abolished. This amendment was passed as a result of Supreme Court decision in Madhav Rao's case.
27. *The Constitution (Twenty-seventh Amendment) Act, 1971*—This amendment was passed to provide for certain matters necessitated by the reorganisation of north-eastern states. A new Article 239B was inserted which enabled the promulgation of Ordinances by Administrators of certain union territories.
28. *The Constitution (Twenty-eighth Amendment) Act, 1972*—The amendment was enacted to abolish the special privileges of the members of Indian Civil Services in matters of leave, pension and rights as regard to disciplinary matters.
29. *The Constitution (Twenty-ninth Amendment) Act, 1972*—The Ninth Schedule to the Constitution was amended to include therein two Kerala Acts on land reforms.
30. *The Constitution (Thirtieth Amendment) Act, 1972*—The purpose of the amendment was to amend Article 133 in order to do away with the valuation test of Rs 20,000 as fixed therein, and to provide instead for an appeal to Supreme Court in Civil proceedings only on a certificate issued by High Court that the case involves a substantial question of law of general importance and that in opinion of High Court, the question needs to be decided by Supreme Court.
31. *The Constitution (Thirty-first Amendment) Act, 1973*—This Act *inter alia* raises the upper limit for the representation of states in the Lok Sabha from 500 to 525 and reducing the upper limit for the representation of union territories from 25 members to 20.
32. *The Constitution (Thirty-second Amendment) Act, 1973*—This Act provided the necessary constitutional authority for giving effect to the provision of equal opportunities to different areas of the State of Andhra Pradesh and for the constitution of an Administrative Tribunal with jurisdiction to deal with grievances relating to public services. It also empowered Parliament to legislate for the establishment of a Central University in the State.
33. *The Constitution (Thirty-third Amendment) Act, 1974*—By this amendment, Articles 101 and 190 were amended in order to streamline the procedure for resignation of Members of Parliament and State Legislatures.
34. *The Constitution (Thirty-fourth Amendment) Act, 1974*—By this Act, twenty more land tenure and land reforms laws enacted by various State Legislatures were included in the Ninth Schedule.
35. *The Constitution (Thirty-fifth Amendment) Act, 1974*—By this Act a new Article 2A was added thereby conferring on Sikkim the status of an associate State of Indian Union. Consequent amendments were made to Articles 80 and 81. A new schedule, *i.e.*, Tenth Schedule, was added laying down terms and conditions of association of Sikkim with the Union.
36. *The Constitution (Thirty-sixth Amendment) Act, 1975*—This was enacted to make Sikkim a full-fledged State of Indian Union and to include it in the First Schedule to the Constitution and to allot to Sikkim one seat each in the Council of States and in the House of the People. Article 2A and the Tenth Schedule inserted by the Constitution (Thirty-fifth Amendment) Act were omitted and Articles 80 and 81 were suitably amended.

37. *The Constitution (Thirty-seventh Amendment) Act, 1975*—By this Act, Union Territory of Arunachal Pradesh was provided with a Legislative Assembly. Article 240 of the Constitution was also amended to provide that as in the case of other union territories with Legislatures, the power of President to make regulations for the Union Territory of Arunachal Pradesh may be exercised only when the assembly is either dissolved or its functions remain suspended.

38. *The Constitution (Thirty-eighth Amendment) Act, 1975*—This Act amended Articles 123, 213 and 352 of the Constitution to provide that the satisfaction of President or Governor contained in these Articles would be called in question in any court of law.

39. *The Constitution (Thirty-ninth Amendment) Act, 1975*—By this Act, disputes relating to the election of President, Vice-President, Prime Minister and Speaker are to be determined by such authority as may be determined by Parliamentary Law. Certain Central enactments were also included in the Ninth Schedule by this Act.

40. *The Constitution (Fortieth Amendment) Act, 1976*—This act provided for vesting in the Union of all mines, minerals and other things of value lying in the ocean within the territorial waters or the continental shelf or the exclusive economic zone of India. It further provided that all other resources of the exclusive economic zone of India shall also vest in the Union. This act also provided that the limits of the territorial waters, the continental shelf, the exclusive economic zone and the maritime zones of India shall be as specified from time to time by or under any law made by Parliament. Also some more Acts were added to the Ninth Scheme.

41. *The Constitution (Forty-first Amendment) Act, 1976*—By this Act, Article 316 was amended to raise the retirement age of Members of State Public Service Commissions and Joint Public Service Commissions from 60 to 62 years.

42. *The Constitution (Forty-second Amendment) Act, 1976*—This act made a number of important amendments in the Constitution. These amendments were mainly for purpose of giving effect to the recommendations of Swaran Singh Committee.

Some of the important amendments made are for the purpose of spelling out expressly the high ideals of socialism, secularism and the integrity of the nation, to make the Directive Principles more comprehensive and giving them precedence over those Fundamental Rights which have been allowed to be relied upon to frustrate socio-economic reforms. The amendment Act also inserted a new chapter on the Fundamental Duties of citizens and made special provisions for dealing with anti-national activities, whether by individuals or by associations. The judiciary provisions were also amended by providing for a requirement as to the minimum number of judges for determining question as to the constitutional validity of law and for a special majority of not less than two-third for declaring any law to be constitutionally invalid.

To reduce the mounting arrears in High Courts and to secure the speedy disposal of service matters, revenue matters and certain other matters of special importance in the context of socio-economic development and progress, this amendment Act provided for the creation of Administrative and other tribunals for dealing with such matters while preserving the jurisdiction of the Supreme Court in regard to such matters under Article 136 of the Constitution. Certain modifications in the writ jurisdiction of High Courts under Article 226 were also made.

43. *The Constitution (Forty-third Amendment) Act, 1977*—This Act *inter alia* provided for the restoration of the jurisdiction of the Supreme Court and High Courts, curtailed by the enactment of the Constitution (Forty-second Amendment) Act, 1976 and accordingly Articles 32A, 131A, 144A, 226A and 228A included in the Constitution by the said amendment, were omitted by this Act. The Act also provided for the omission of Article 31 which conferred special powers on Parliament to enact certain laws in respect of anti-national activities.

44. *The Constitution (Forty-fourth Amendment) Act, 1978*—The right to property which had been the occasion for more than one amendment of Constitution was omitted as a Fundamental Right and it was made only as a legal right. It was, however, ensured that the removal of the right to property from the list of Fundamental Rights would not affect the right of minorities to establish and administer educational institutions of their choice. Article 352 of the Constitution was amended to provide "armed rebellion" as one of the circumstances for declaration of emergency. Internal disturbance not amounting to armed rebellion would not be a ground for the issuance of a Proclamation. The right to personal liberty as contained in Articles 21 and 22 is further strengthened

by the provision that a law for preventive detention cannot authorise, in any case, detention for a longer period than two months unless an Advisory Board has reported that there is sufficient cause for such detention. The additional safeguard has also been provided by the requirements that Chairman of an Advisory Board shall be a serving Judge of the appropriate High Court and that the Board shall be constituted in accordance with the recommendations of the Chief Justice of that High Court.

With a view to avoid delays, Articles 132 and 134 were amended and a new Article 134A was inserted to provide that a High Court should consider the question of granting a certificate for appeal to Supreme Court immediately after the delivery of the judgement, final order or sentence concerned on the basis of an oral application by a party or, if the High Court deems it so to do, on its own. The other amendments made by the Act are mainly for removing or correcting the distortions which came into the Constitution by reason of the amendment initiated during the period of internal emergency.

45. *The Constitution (Forty-fifth Amendment) Act, 1980*—This was passed to extend safeguards in respect of reservation of seats in Parliament and State Assemblies for Scheduled Castes, Scheduled Tribes as well as for Anglo-Indians for a further period of ten years.

46. *The Constitution (Forty-sixth Amendment) Act, 1982*—Article 269 was amended so that the tax levied on the consignment of goods in the course of inter-state or commerce shall be assigned to the states. This Article was also amended to enable Parliament to formulate by law principle for determining when a consignment of goods takes place in the course of inter-state trade or commerce. A new entry 92B was also inserted in the Union List to enable the levy of tax on the consignment of goods where such consignment takes place in the course of inter-state trade or commerce.

Clause (3) of Article 286 was amended to enable Parliament to specify, by law, restrictions and conditions in regard to the system of levy rates and other incidence of tax on the transfer of goods involved in the execution of a works contract, on the delivery of goods on hire-purchase or any system of payment of instalments, etc.

Article 366 was also suitably amended to insert a definition of “tax on the sale or purchase of goods” to include transfer for consideration of controlled commodities, transfer of property in goods involved in the execution of a works contract, delivery of goods on hire-purchase or any system of payment by instalments, etc.

47. *The Constitution (Forty-seventh Amendment) Act, 1984*—This amendment is intended to provide for the inclusion of certain land Reforms Acts in the Ninth Schedule to the Constitution with a view to obviating the scope of litigation hampering the implementation process of those Acts.

48. *The Constitution (Forty-eighth Amendment) Act, 1984*—The Proclamation issued by President under Article 356 of the Constitution with respect to the State of Punjab cannot be continued in force for more than one year unless the special conditions mentioned in clause (5) of the said Article are satisfied. As it is felt that the continued force of the said Proclamation is necessary, therefore, the present amendment had been effected so as to make the conditions mentioned in clause (5) of Article 356 inapplicable in the instant case.

49. *The Constitution (Forty-ninth Amendment) Act, 1984*—Tripura Government recommended that the provisions of the Sixth Schedule to the Constitution may be made applicable to tribal areas of that State. The amendment involved in this Act is intended to give a constitutional security to the autonomous District Council functioning in the State.

50. *The Constitution (Fiftieth Amendment) Act, 1984*—by Article 33 of the constitution, Parliament is empowered to enact laws determining to what extent any of the rights conferred by Part III of the constitution shall, in their application to the members of the armed forces or the forces charged with the maintenance of public order, be restricted or abrogated so as to ensure proper discharge of their duties and maintenance of discipline among them.

It was proposed to amend Article 33 so as to bring within its ambit:

(i) the members of the Force charged with the protection of property belonging to or in the charge or possession of the state; or

(ii) persons employed in any bureau or other organisation established by the state for purposes of intelligence or counter-intelligence; or

(iii) persons employed in or in connection with the telecommunication systems set up for the purposes of any Force, bureau or organisation.

Experience has revealed that the need for ensuring proper discharge of their duties and maintenance of discipline among them is of paramount importance in the national interest.

51. *The Constitution (Fifty-first Amendment) Act, 1984*—Article 330 has been amended by this Act for providing reservation of seats for Scheduled Tribes in Meghalaya, Nagaland, Arunachal Pradesh and Mizoram in Parliament and Article 332 has been amended to provide similar reservation in the Legislative Assemblies of Nagaland and Meghalaya to meet the aspirations of local tribal population.

52. *The Constitution (Fifty-second Amendment) Act, 1985*—It amends the Constitution to provide that a Member of Parliament or a State Legislature who defects or is expelled from the party which set him up as a candidate in the election or if an independent member of the House joins a political party after expiry of six months from the date on which he takes seat in the House shall be disqualified to remain a member of the House. The Act also makes suitable provisions with respect to splits in and merger of political parties.

53. *The Constitution (Fifty-third Amendment) Act, 1986*—This has been enacted to give effect to the Memorandum of Settlement of Mizoram which was signed by Government of India and Mizoram Government with Mizoram National Front on 30th June 1986. For this purpose, a new Article 371G has been inserted in the Constitution *inter alia* preventing application of any Act of Parliament in Mizoram in respect of religious or social practices of Mizos, Mizos' customary law and procedure, administration of civil and criminal practice involving decisions according to Mizos' customary law and ownership and transfer of land unless a resolution is passed in the Legislative Assembly to that effect. This, however, will not apply to any Central Act already in force in Mizoram before the commencement of this amendment. The new Article also provides that the Legislative Assembly of Mizoram shall consist of not less than 40 members.

54. *The Constitution (Fifty-fourth Amendment) Act, 1986*—This Act increases the salaries of Supreme Court and High Court judges as follows :

Chief Justice of India	Rs 10,000 per month
Judges of Supreme Court	Rs 9,000 per month
Chief Justice of High Court	Rs 9,000 per month
Judges of High Court	Rs 8,000 per month

This Act amended Part 'D' of the Second Schedule to the Constitution to give effect to the above increases in the salaries of judges and to make an enabling provision in Articles 125 and 221 to provide for changes in the salaries of judges in future by Parliament by law.

55. *The Constitution (Fifty-fifth Amendment) Act, 1986*—This Act seeks to give effects to the proposal of Government of India to confer statehood on the Union Territory of Arunachal Pradesh and for this purpose, a new Article 371H has been inserted which, *inter alia*, confers, having regard to the sensitive location of Arunachal Pradesh to vest special responsibility on Governor of the new State of Arunachal Pradesh with respect to law and order in the State and in the discharge of his functions, the Governor shall after consulting the Council of Ministers, exercise his individual judgement, as to the action to be taken and this responsibility shall cease when President so directs. The new Article also provides that the new Legislative Assembly of the new State of Arunachal Pradesh, shall consist of not less than thirty members.

56. *The Constitution (Fifty-sixth Amendment) Act, 1987*—Government of India has proposed to constitute the territories comprised in Goa District of the Union Territory of Goa, Daman and Diu as the State of Goa and the territories comprised in Daman and Diu districts of that Union Territory as a new Union Territory of Daman and Diu. In this context, it was proposed that the Legislative Assembly of the new State of Goa shall consist of 40 members. The existing Legislative Assembly of the Union Territory of Goa, Daman and Diu has 30 elected members and three nominated members. It was intended to make this Assembly with the exclusion of two members representing Daman and

Diu districts the provisional Legislative Assembly for the new State of Goa until elections are held on the expiry of the five year terms of the existing Assembly. It was, therefore, decided to provide that the Legislative Assembly of the new State of Goa shall consist of not less than 30 members. The special provision required to be made to give effect to this proposal is carried out by this amendment.

57. *The Constitution (Fifty-seventh amendment) Act, 1987*—The Constitution (Fifty-first Amendment) Act, 1984 was enacted to provide for reservation of seats in the house of the people for scheduled tribes in Nagaland, Meghalaya, Mizoram and Arunachal Pradesh and also for reservation of seats for scheduled tribes in the legislative assemblies of Nagaland and Meghalaya by suitably amending articles 330 and 332. Even though these states are predominantly tribal, the underlying objective of the aforesaid act was to ensure that the members of scheduled tribes in these areas do not fail to secure a minimal representation because of their inability to compete with the advanced sections of the people. The Constitution (fifty-first amendment) act, though formally enforced, could not be fully implemented unless parallel action is taken to determine the seats which are to be reserved for Scheduled tribes in these areas. The number of seats reserved for Schedule Castes and Schedule Tribes in the Legislative Assembly of any State under article 332 of the constitution will have to be determined having regard to the provisions of article 332 (3) of the Constitution. However, in view of the historical background with respect to the areas comprised in north-eastern states, the circumstances obtaining in these areas in the State of development of Scheduled Tribes and other relevant considerations, it was considered necessary to provide for special arrangements with regard to the reservation for Scheduled Tribes in these areas for a temporary period so as to facilitate easy transition of these areas to the normal arrangements as envisaged in the Constitution. Article 332 of the Constitution was further amended for making a temporary provision, until the re-adjustment of seats on the basis of first census after the year 2000 under article 170 of the Constitution for these states, for the determination of the number of seats reserved for Scheduled Tribes. This amendment seeks to provide that if all the seats in the Legislative Assembly of such States in existence on the date of coming into force of this constitution amendment act are held by the members of Scheduled Tribes, all the seats except one shall be reserved for scheduled tribes and in any other case such number of seats as bears to the total number of seats a proportion not less than the number of members belonging to Scheduled Tribes in the existing assembly bears to the total number of seats in the existing assembly. The act achieves these objectives.

58. *The Constitution (Fifty-eighth Amendment) Act, 1987*—There has been general demand for the publication of authoritative text of the Constitution in Hindi. It is imperative to have an authoritative text of the Constitution for facilitating its use in the legal process. Any Hindi version of the Constitution should not only conform to the Hindi translation published by the Constituent Assembly, but should be in conformity, with the language style and terminology adopted in the authoritative texts of Central Acts in Hindi. The Constitution has been amended to empower President of India to publish under his authority the translation of the Constitution in Hindi signed by the Members of the Constituent Assembly with such modification as may be necessary to bring it in conformity with the language, style and terminology adopted in the authoritative texts of Central Acts in Hindi language. President has also been authorised to publish the translation in Hindi of every amendment of the Constitution made in English.

59. *The Constitution (Fifty-ninth Amendment) Act, 1988*—The Act amends Article 365 (5) of the Constitution so as to facilitate the extension of a Presidential Proclamation issued under clause (1) of Article 356 beyond a period of one year, if necessary upto a period of three years, as permissible under clause (4) of Article 356 with respect to the State of Punjab because of the continued disturbed situation there. The Act also amends Article 352 of the Constitution pertaining to the Proclamation of Emergency in its application to the State of Punjab and includes internal disturbance as one of the grounds for making a Proclamation in respect of the State of Punjab only. As a consequence of amendment in Article 352, Articles 358 and 359 in relation to the State of Punjab will be operative only for a period of two years from 30 March 1988, which is the date of commencement of the amendment.

60. *The Constitution (Sixtieth Amendment) Act, 1988*—The Act amends clause (2) of Article 276 of the Constitution so as to increase the ceiling of taxes on professions, trades, callings and employment from Rs 250 per annum to Rs 2,500 per annum. The upward revision of this tax will help state governments in raising additional resources. The proviso to clause (2) has been omitted.

61. *The Constitution (Sixty-first Amendment) Act, 1989*—The Act provides for reducing voting age

from 21 to 18 years by amending Article 326 of the Constitution to provide to the unrepresented youth of the country an opportunity to give vent to their feelings and help them become a part of political process.

62. *The Constitution (Sixty-second Amendment) Act, 1989*—Article 334 of the Constitution lays down that the provisions of the Constitution relating to the reservation of seats for the Scheduled Castes and the Scheduled Tribes and the representation of the Anglo-Indian community by nomination in the Lok Sabha and in the Legislative Assemblies of the States shall cease to have effect on the expiry of a period of 40 years from the commencement of the Constitution. Although the Scheduled Castes and the Scheduled Tribes have made considerable progress in the last 40 years, the reasons which weighed with the Constituent Assembly in making provisions with regard to the aforesaid reservation of seats and nomination of members, have not ceased to exist. The Act amends Article 334 of the Constitution to continue the reservation for the Scheduled Castes and the Scheduled Tribes and the representation of the Anglo-Indians by nomination for a further period of 10 years.

63. *The Constitution (Sixty-third Amendment) Act, 1989*—The Constitution (Fifty-ninth Amendment) Act, 1988 was enacted in March 1988 making certain changes in regard to making a Proclamation of Emergency in Punjab and to the duration of President's rule in State. On reconsideration, the Government decided that the special powers in regard to the Proclamation of Emergency in Punjab as envisaged in the said amendment is no longer required. Accordingly the provision to clause (5) of Article 356 and Article 359A of the Constitution have been omitted.

64. *The Constitution (Sixty-fourth Amendment) Act, 1990*—This Act amends clauses (4) and (5) of Article 356 of the Constitution with a view to facilitate the extension of the proclamation issued under clause (1) of Article 356 of the Constitution on 11th May 1987 upto a total period of three years and six months in relation to the State of Punjab.

65. *The Constitution (Sixty-fifth Amendment) Act, 1990*—Article 338 of the Constitution provides for a Special Officer for the Scheduled Castes and Scheduled Tribes to investigate all matters relating to the safeguards provided for the Scheduled Castes and Scheduled Tribes under the Constitution and to report to the President on their working. The Article has been amended for the constitution of a National Commission for Scheduled Castes and Scheduled Tribes consisting of a Chairperson, Vice Chairperson and five other Members who shall be appointed by the President by warrant under his hand and seal. The amended Article elaborates the duties of the said Commission and covers measures that should be taken by the Union or any state for the effective implementation of the reports presented by the Commission. It also provides that the Commission shall, while investigating any matter or inquiring into any complaint have all the powers of a Civil Court trying a suit and the reports of the said Commission shall be laid before Parliament and the Legislature of the states.

66. *The Constitution (Sixty-sixth Amendment) Act, 1990*—The Act protects 55 State Acts relating to land reforms and ceiling on agricultural land holdings enacted by States of Andhra Pradesh, Bihar, Gujarat, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Rajasthan, Tamilnadu, Uttar Pradesh, West Bengal and administration of the Union Territory of Puducherry, from challenge in courts, by including them in the Ninth Schedule to the Constitution.

67. *The Constitution (Sixty-seventh Amendment) Act, 1990*—The three year period in the case of proclamation issued on 11th May 1987 with respect to the State of Punjab was extended to three years and six months by the Constitution (Sixty-fourth Amendment) Act, 1990. This Act further amends clause (4) of Article 356 so as to further extend the period upto a total period of four years.

68. *The Constitution (Sixty-eighth Amendment) Act, 1991*—The three year period in the case of proclamation issued on 17th May 1987 with respect to the State of Punjab was earlier extended to four years by the Constitution (sixty-seventh Amendment) Act, 1990. This Act further amends clause (4) of Article 356 so as to further extend the period upto a total period of five years.

69. *The Constitution (Sixty-ninth Amendment) Act, 1991*—The Government of India appointed on 24th December 1987 a Committee to go into various issues connected with the administration of Delhi and to recommend measures, *inter alia* for the streamlining of the administrative set up. After detailed inquiry and examination, it recommended that Delhi should continue to be a union territory and may be provided with a Legislative Assembly and a Council of Ministers responsible to such assembly with appropriate powers to deal with matters of concern to the common man. The

Committee also recommended that with a view to ensuring stability and permanence, arrangements should be incorporated in the constitution to give the national capital a special status among the union territories. This act has been passed to give effect to the above recommendations.

70. *The Constitution (Seventieth Amendment) Act, 1992*—While considering the (Seventy-fourth Amendment) Bill, 1991 and the Government of National Capital Territory Bill, 1991 views were expressed in both the Houses of Parliament in favour of including also the elected members of the legislative assemblies of union territories in the electoral college for the election of the President under Article 54 of the Constitution.

At present Article 54 relating to the election of the President provides for an electoral college consisting of only the elected Members of Parliament as well as the legislative assemblies of the states (not of union territories). Similarly, Article 55 providing for the manner of such election also speaks of legislative assemblies of states.

Accordingly, an Explanation was inserted in Article 54 to provide that reference to 'State' in Article 54 and 55 would include the National Capital Territory of Delhi and the Union Territory of Puducherry for constituting the electoral college for election of the President. This would enable the elected members of the Legislative Assembly created for the Union Territory of Puducherry under the provisions of Article 239A and of the proposed Legislative Assembly of the National Capital Territory of Delhi under Article 239AA to be included in the electoral college.

71. *The Constitution (Seventy-first Amendment) Act, 1992*—There have been demands for inclusion of certain languages in the Eighth Schedule to the Constitution. This Act amends the Eighth Schedule to the Constitution to include Konkani, Manipuri and Nepali languages in the Eighth Schedule to the Constitution.

72. *The Constitution (Seventy-second Amendment) Act, 1992*—For restoring peace and harmony in the areas of the State of Tripura where disturbed conditions prevailed, a Memorandum of Settlement was signed by the Government of India with Tripura National Volunteers on 12 August 1988.

In order to implement the said Memorandum, Article 332 of the Constitution has been amended by the Constitution (Seventy-second Amendment) Act, 1992 for making a temporary provision for the determination of the number of seats reserved for the Scheduled Tribes in the State Assembly of Tripura, until the re-adjustment of seats is made on the basis of the first Census after the year 2000 under Article 170 of the Constitution.

73. *The Constitution (Seventy-third Amendment) Act, 1993*—Article 40 of the Constitution which enshrines one of the Directive Principles of State Policy lays down that the State shall take steps to organise village *panchayats* and endow them with such powers and authority as may be necessary to enable them to function as units of self-government.

In the light of the above, a new Part IX relating to the Panchayats has been inserted in the Constitution to provide for among other things, *Gram Sabha* in a village or group of villages; constitution of *Panchayats* at village and other level or levels; direct elections to all seats in Panchayats at the village and intermediate level, if any and to the offices of Chairpersons of Panchayats at such levels; reservation of seats for the Scheduled Castes and Scheduled Tribes in proportion to their population for membership of Panchayats and office of Chairpersons in Panchayats at each level; reservation of not less than one-third of the seats for women; fixing tenure of five years for Panchayats and holding elections within a period of six months in the event of supersession of any Panchayat.

74. *The Constitution (Seventy-fourth Amendment) Act, 1993*—In many states local bodies have become weak and ineffective on account of a variety of reasons, including the failure to hold regular elections, prolonged supersession and inadequate devolutions of powers and functions. As a result, Urban Local Bodies are not able to perform effectively as vibrant democratic units of self-government.

Having regard to these inadequacies a new part IX-A relating to the Municipalities has been incorporated in the Constitution to provide for among other things, constitution of three types of Municipalities, *i.e.*, *Nagar Panchayats* for areas in transition from a rural area to urban area, Municipal Councils for smaller urban areas and Municipal Corporations for larger urban areas.

75. *The Constitution (Seventy-fifth Amendment) Act, 1994*—The operation of the Rent Control Legislations, as are today in various states, suffers from major weaknesses and has led to various

unintended consequences. Some of the deleterious legal consequences include mounting and mending litigation, inability of the courts to provide timely justice, evolution of practices and systems to bypass the operations of rent legislations and steady shrinkage of rental housing market.

The Supreme Court taking note of the precarious state of rent litigation in the country in case of Prabhakaran Nair and others vs. State of Tamilnadu (Civil Writ Petition 506 of 1986) and other writs observed that the Supreme Court and the High Courts should be relieved of the heavy burden of rent litigation. Tiers of appeals should be curtailed. Laws should be simple, rational and clear, litigations must come to end quickly.

Therefore, this Act amends Article 323B in Part XIVA of the Constitution so as to give timely relief to the rent litigants by providing for setting up of state-level Rent Tribunals in order to reduce the tiers of appeals and to exclude the jurisdiction of all courts, except that of the Supreme Court, under Article 136 of the Constitution.

76. *The Constitution (Seventy-sixth Amendment) Act, 1994*—The policy of reservation of seats in educational institutions and reservation of appointments or posts in public services for Backward Classes, Scheduled Castes and Scheduled Tribes has had a long history in Tamilnadu dating back to the year 1921. The extent of reservation has been increased by the State Government from time to time, consistent with the needs of the majority of the people and it has now reached the level of 69 per cent (18 per cent Scheduled Castes, one per cent Scheduled Tribes and 50 per cent Other Backward Classes).

The Supreme Court in Indira Sawhney and others vs. Union of India and others (AIR, 1993 SC 477) on 16th November 1992 ruled that the total reservations under Article 16(4) should not exceed 50 per cent.

The Tamilnadu Government enacted a legislation, namely, Tamilnadu Backward Classes, Scheduled Castes and Scheduled Tribes (Reservation of Seats in Educational Institution and of appointments or posts in the Services under the State) Bill, 1993 and forwarded it to the Government of India for consideration of the President of India in terms of Article 31-C of the Constitution. The Government of India supported the provision of the State legislation by giving the President's assent to the Tamilnadu Bill. As a corollary to this decision, it was necessary that the Tamilnadu Act 45 of 1994 was brought within the purview of the Ninth Schedule to the Constitution so that it could get protection under Article 31B of the Constitution with regard to the judicial review.

77. *The Constitution (Seventy-seventh Amendment) Act, 1995*—The Schedule Castes and the scheduled tribes have been enjoying the facility of reservation in promotion since 1955. The Supreme Court in its judgment dated 16th November 1992 in the case of Indira Sawhney and others vs. Union of India and others, however, observed that reservation of appointments or posts under Article 16(4) of the Constitution is confined to initial appointment and cannot extend to reservation in the matter of promotion. This ruling of the Supreme Court will adversely affect the interests of the Scheduled Castes and the Scheduled Tribes. Since the representation of the Scheduled Castes and the Scheduled Tribes in services in the States have not reached the required level, it is necessary to continue the existing dispensation of providing reservation in promotion in the case of the Scheduled Castes and the Scheduled Tribes. In view of the commitment of the Government to protect the interests of the Scheduled Castes and the Scheduled Tribes, the Government have decided to continue the existing policy of reservation in promotion for the Scheduled Castes and the Scheduled Tribes. To carry out this, it was necessary to amend Article 16 of the Constitution by inserting a new clause (4A) in the said Article to provide for reservation in promotion for the Scheduled Castes and the Scheduled Tribes.

78. *The Constitution (Seventy-eighth Amendment) Act, 1995*—Article 31B of the Constitution confers on the enactments included in the Ninth Schedule to the Constitution immunity from legal challenge on the ground that they violate the fundamental rights enshrined in Part III of the Constitution. The Schedule consists of list of laws enacted by various State Governments and Central Government which *inter alia* affect rights and interest in property including land.

In the past, whenever, it was found that progressive legislation conceived in the interest of the public was imperilled by litigation, recourse was taken to the Ninth Schedule. Accordingly, several State enactments relating to land reforms and ceiling on agricultural land holdings have already been included in the Ninth Schedule. Since, the Government is committed to give importance to land reforms, it was decided to include land reform laws in the Ninth Schedule so that they are not

challenged before the courts. The State Governments of Bihar, Karnataka, Kerala, Orissa, Rajasthan, Tamilnadu and West Bengal had suggested the inclusion of some of their Acts relating to land reforms in the Ninth Schedule.

Since the amendment to Acts which are already placed in the Ninth Schedule are not automatically immunised from legal challenge, a number of amending Acts along with a few principal Acts have been included in the Ninth Schedule so as to ensure that implementation of these Acts is not adversely affected by litigation.

79. *The Constitution (Seventy-ninth Amendment) Act, 1999*—By this Act the Government has extended the reservations of seats for the Scheduled Castes and the Scheduled Tribes as well as for the Anglo-Indians in the House of the People and in the Legislative Assemblies of the States for another ten years.

80. *The Constitution (Eightieth Amendment) Act, 2000*—Based on the recommendations of the Tenth Finance Commission, an alternative scheme for sharing taxes between the Union and the States has been enacted by the Constitution (Eightieth Amendment) Act 2000. Under the new scheme of devolution of revenue between Union and the States, 26 per cent out of gross proceeds of Union taxes and duties is to be assigned to the States in lieu of their existing share in the income-tax, excise duties, special excise duties and grants in lieu of tax on railway passenger fares.

81. *The Constitution (Eighty-first Amendment) Act, 2000*—By this amendment the unfilled vacancies of a year which were reserved for the Scheduled Castes and the Scheduled Tribes for being filled up in that year in accordance with any provision for reservations made under Article 16 of the Constitution, shall be considered as a separate class of vacancies to be filled up in any succeeding year or years, and such class of vacancies shall not be considered together with the vacancies of the year in which they were filled up for determining the ceiling of fifty per cent reservation against total number of vacancies of that year.

82. *The Constitution (Eighty-second Amendment) Act, 2000*—The amendment provides that nothing in Article 335 shall prevent the State from making any provision in favour of the members of the Scheduled Castes and the Scheduled Tribes for relaxation in qualifying marks in any examination or lowering the standards of evaluation for reservation in matters of promotion to any class or classes of services or posts in connection with affairs of the Union or of a State.

83. *The Constitution (Eighty-third Amendment) Act, 2000*—The Act amended Article 243M of the Constitution to provide that no reservation in Panchayats need be made in favour of the Scheduled Castes in Arunachal Pradesh wholly inhabited by tribal population.

84. *The Constitution (Eighty-fourth Amendment) Act, 2001*—The Act amended provisions to articles 82 and 170(3) of the Constitution to readjust and rationalise the territorial constituencies in the States, without altering the number of seats allotted to each State in House of People and Legislative Assemblies of the States, including the Scheduled Castes and Scheduled Tribes constituencies, on the basis of the population ascertained at the census for the year 1991 so as to remove the imbalance caused due to uneven growth of population/electorate in different constituencies. It is also to refix the number of seats reserved for the Scheduled Castes and the Scheduled Tribes in the House of the People and the Legislative Assemblies of the States on the basis of the population ascertained at the census for the year 1991 so as to remove the imbalance caused due to uneven growth of population/electorate in different constituencies. It is also to refix the number of seats reserved for Scheduled Castes and the Scheduled Tribes in the House of the People and the Legislative Assemblies of the States on the basis of the population ascertained at the census for the year 1991.

85. *The Constitution (Eighty-fifth Amendment) Act, 2001*—This Act amended article 16(4A) of the Constitution to provide for consequential seniority in the case of promotion by virtue of rule of reservation for the Government servants belonging to the Scheduled Castes and the Scheduled Tribes. It also provides retrospective effect from 17th day of June 1995.

86. *The Constitution (Eighty-sixth Amendment) Act, 2002*—The Act deals with insertion of a new article 21A after article 21. The new article 21A deals with Right to Education—"The State shall

provide free and compulsory education to all children of the age of six to fourteen years in such manner as the State may, by law, determine”.

Substitution of new Article for Article 45. For Article 45 of the Constitution, the following article shall be substituted, namely, Provision for early childhood care and education to children below the age of six years. Article 45: “The State shall endeavour to provide early childhood care and education for all children until they complete the age of six years.”

Article 51A of the Constitution was amended and a new clause (k) was added after clause (j), namely, “(k) who is a parent or guardian to provide opportunities for education to his child or, as the case may be, ward between the age of six and fourteen years.”

87. *The Constitution (Eighty-seventh Amendment) Act, 2003* - In Article 81 of the Constitution, in clause (3), in the proviso, in clause (ii), for the figures “1991”, the figures “2001” shall be substituted.

In Article 82 of the Constitution, in the third proviso, in clause (ii), for the figures “1991”, the figures “2001” shall be substituted.

In Article 170 of the Constitution, - (i) in clause (2), in the Explanation, in the proviso, for the figures “1991”, the figures “2001” shall be substituted; (ii) in clause (3), in the Explanation, in the third proviso, for the figures “1991”, the figures “2001” shall be substituted.

In Article 330 of the Constitution, in the Explanation, in the proviso, for the figures “1991”, the figures “2001” shall be substituted.

88. *The Constitution (Eighty-eighth Amendment) Act, 2003* - It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint.

After Article 268 of the Constitution, the following article shall be inserted, namely :

“268A. (1) Taxes on services shall be levied by the Government of India and such tax shall be collected and appropriated by the Government of India and the States in the manner provided in clause (2).

(2) The proceeds in any financial year of any such tax levied in accordance with the provisions of clause (1) shall be - (a) collected by the Government of India and the States; (b) appropriated by the Government of India and the States, in accordance with such principles of collection and appropriation as may be formulated by Parliament by law”.

In Article 270 of the constitution, in clause(1), for the words and figures "Article 268 and 269", the words, figures and letter "Articles 268, 268A and 269" shall be substituted.

In the Seventh Schedule to the Constitution, in **List I-Union List**, after entry 9.2B, the following entry shall be inserted, namely : “92C. Taxes on services”.

89 *The Constitution (Eighty-ninth Amendment) Act, 2003*-It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint.

In Article 338 of the Constitution, - (a) for the marginal heading, the following marginal heading shall be substituted, namely :

“National Commission for : Scheduled Castes”;

(b) for clauses (1) and (2), the following clauses shall be substituted, namely:

“(1) There shall be a Commission for the Scheduled Castes to be known as the National Commission for the Scheduled Castes.

(2) Subject to the provisions of any law made in this behalf by Parliament, the Commission shall consist of a Chairperson, Vice-Chairperson and three other Members and the conditions of service and tenure of office of the Chairperson, Vice-Chairperson and other Members so appointed shall be such as the President may by rule determine”;

(c) in clauses (5), (9) and (10), the words “and Scheduled Tribes”, wherever they occur, shall be omitted.

After Article 338 of the Constitution, the following article shall be inserted, namely:

“338A. (1) There shall be a Commission for the Scheduled Tribes to be known as the National Commission for the Scheduled Tribes.

(2) Subject to the provisions of any law made in this behalf by Parliament, the Commission

shall consist of a Chairperson, Vice-Chairperson and three other Members and the conditions of service and tenure of office of the Chairperson, Vice-Chairperson and other Members so appointed shall be such as the President may by rule determine.

(3) The Chairperson, Vice-Chairperson and other Members of the Commission shall be appointed by the President by warrant under his hand and seal.

(4) The Commission shall have the power to regulate its own procedure.

(5) It shall be the duty of the Commission - (a) to investigate and monitor all matters relating to the safeguards provided for the Scheduled Tribes under this Constitution or under any other law for the time being in force or under any order of the Government and to evaluate the working of such safeguards; (b) to inquire into specific complaints with respect to the deprivation of rights and safeguards of the Scheduled Tribes; (c) to participate and advise on the planning process of socio-economic development of the Scheduled Tribes and to evaluate the progress of their development under the Union and any State; (d) to present to the President, annually and at such other times as the Commission may deem fit, reports upon the working of those safeguards; (e) to make in such reports recommendations as to the measures that should be taken by the Union or any State for the effective implementation of those safeguards and other measures for the protection, welfare and socio-economic development of the Scheduled Tribes; and (f) to discharge such other functions in relation to the protection, welfare and development and advancement of the Scheduled Tribes as the President may, subject to the provisions of any law made by Parliament, by rule specify.

(6) The President shall cause all such reports to be laid before each House of Parliament along with a memorandum explaining the action taken or proposed to be taken on the recommendations relating to the Union and the reasons for the non-acceptance, if any, of any of such recommendations.

(7) Where any such report, or any part thereof, relates to any matter with which any State Government is concerned, a copy of such report shall be forwarded to the Governor of the State who shall cause it to be laid before the Legislature of the State along with a memorandum explaining the action taken or proposed to be taken on the recommendations relating to the State and reasons for the non-acceptance, if any, of any of such recommendations.

(8) The Commission shall, while investigating any matter referred to in sub-clause (a) or inquiring into any complaint referred to in sub-clause (b) of clause (5), have all the powers of a civil court trying a suit and in particular in respect of the following matters, namely:

(a) summoning and enforcing the attendance of any person from any part of India and examining him on oath; (b) requiring the discovery and production of any document; (c) receiving evidence on affidavits; (d) requisitioning any public record or copy thereof from any court or office; (e) issuing commissions for the examination of witnesses and documents; (f) any other matter which the President may, by rule, determine.

(9) The Union and every State Government shall consult the Commission on all major policy matters affecting Scheduled Tribes”.

90. *The Constitution (Ninetieth Amendment) Act, 2003*-In Article 332 of the Constitution, in clause (6), the following proviso shall be inserted, namely :

“Provided that for elections to the Legislative Assembly of the State of Assam, the representation of the Scheduled Tribes and non-Scheduled Tribes in the constituencies included in the Bodoland Territorial Areas District, so notified, and existing prior to the constitution of the Bodoland Territorial Areas District, shall be maintained”.

91. *The Constitution (Ninety-first Amendment), Act, 2003* - In Article 75 of the Constitution, after clause (1), the following clauses shall be inserted, namely :

“(1A) The total number of Ministers, including the Prime Minister, in the Council of Ministers shall not exceed fifteen per cent of the total number of members of the House of the People.

(1B) A member of either House of Parliament belonging to any political party who is disqualified for being a member of that House under paragraph 2 of the Tenth Schedule shall also be disqualified to be appointed as a Minister under clause (1) for duration of the period commencing from the date of his disqualification till the date on which the term of his office as such member would expire or where he contests any election to either House of Parliament before the expiry of such period, till the date on which he is declared elected, whichever is earlier”

In Article 164 of the Constitution, after clause (i), the following clauses shall be inserted, namely:

"(1A) the total number of Ministers, including the Chief Minister, in the Council of Ministers in a State shall not exceed fifteen per cent of the total number of members of the Legislative Assembly of that State :

Provided that the number of Ministers, including the Chief Minister, in a State shall not be less than twelve:

Provided further that where the total number of Ministers, including the Chief Minister, in the Council of Ministers in any State at the commencement of the Constitution (Ninety-first Amendment) Act, 2003 exceeds the said fifteen per cent or the number specified in the first proviso, as the case may be, then, the total number of Ministers in that State shall be brought in conformity with the provisions of this clause within six months from such date as the President may by public notification appoint.

(1B) A member of the Legislative Assembly of a State or either House of the Legislature of a State having Legislative Council belonging to any political party who is disqualified for being a member of that House under paragraph 2 of the Tenth Schedule shall also be disqualified to be appointed as a Minister under clause (1) for duration of the period commencing from the date of his disqualification till the date on which the term of his office as such member would expire or where he contests any election to the Legislative Assembly of a State or either House of the Legislature of a State having Legislative Council, as the case may be, before the expiry of such period, till the date on which he is declared elected, whichever is earlier"

After Article 361A of the Constitution, the following article shall be inserted, namely :

316B. A member of a House belonging to any political party who is disqualified for being a member of the House under paragraph 2 of the Tenth Schedule shall also be disqualified to hold any remunerative political post for duration of the period commencing from the date of his disqualification till the date on which the term of his office as such member would expire or till the date on which he contests an election to a House and is declared elected, whichever is earlier.

Explanation : For the purposes of this Article,—

(a) the expression "House" has the meaning assigned to it in clause (a) of paragraph 1 of the Tenth Schedule :

(b) the expression "remunerative political post" means any office—(i) under the Government of India or the Government of a State where the salary or remuneration for such office is paid out of the public revenue of the Government of India or the Government of the State, as the case may be, or (ii) under a body, whether incorporated or not, which is wholly or partially owned by the Government of India or the Government of a State and the salary or remuneration for such office is paid by such body, except where such salary or remuneration paid is compensatory in nature'.

In the Tenth Schedule to the Constitution,—(a) in paragraph, 1, in clause (b), the words and figure "paragraph 3 or, as the case may be," shall be omitted; (b) in paragraph 2, in sub-paragraph (1), for the words and figures "paragraphs 3, 4 and 5", the words and figures "paragraphs 4 and 5" shall be substituted; (c) paragraph 3 shall be omitted.

92. *The Constitution (Ninety-second Amendment) Act, 2003*—In the Eighth Schedule to the Constitution,—(a) existing entry 3 shall be re-numbered as entry 5, and before entry 5 as so re-numbered, the following entries shall be inserted, namely:

"3. Bodo;

4. Dogri".

(b) existing 4 to 7 shall respectively be re-numbered as entries 6 to 9; (c) existing entry 8 shall be re-numbered as entry 11 and before entry 11 as so renumbered, the following entry shall be inserted, namely:

"10. Maithili".

(d) existing entries 9 to 14 shall respectively be re-numbered as entries 12 to 17;

(e) existing entry 15 shall be re-numbered as entry 19 and before entry 19 as so re-numbered, the following entry shall be inserted, namely :

"18. Santhali".

(f) existing entries 16 to 18 shall respectively be re-numbered as entries 20 to 22.

93. *The Constitution (Ninety-third amendment) Act, 2006* - Greater access to higher education including professional education, is of great importance to a large number of students belonging to the Scheduled Castes, the Scheduled Tribes and other socially and educationally backward classes of

citizens. The reservation of seats for the Scheduled Castes, the Scheduled Tribes and the Other Backward Classes of citizens in admission to educational institution is derived from the provisions of clause (4) of articles 15 of the constitution. At present, the number of seats available in aided or State maintained institutions, particularly in respect of professional education, is limited, in comparison to those in private unaided institutions.

Clause (i) of article 30 of the Constitution provides the right to all minorities to establish and administer educational institutions of their choice. It is essential that the rights available to minorities are protected in regard to institutions established and administered by them. Accordingly, institutions declared by the State to be minority institutions under clause (1) of article 30 are excluded from the operation of this enactment.

To promote the educational advancement of the socially and educationally backward classes of citizens, i.e., the Other Backward Classes or of the Scheduled Castes and the Scheduled Tribes in matters of admission of students belonging to these categories in unaided educational institutions, other than the minority educational institutions referred to in clause (1) of article 30, the provisions of article 15 were amplified. The new clause (5) of said article 15 shall enable the Parliament as well as the State Legislatures to make appropriate laws for the above mentioned purpose.

94. *The Constitution (Ninety-fourth amendment) Act, 2006* :- In Article 164 of the Constitution, in Clause (I), in the proviso, for the word "Bihar", the words "Chhattisgarh, Jharkhand" shall be substituted.

Appendices

GOVERNMENT OF INDIA

Smt. Pratibha Devisingh Patil — President
Mohammed Hamid Ansari — Vice-President

CABINET MINISTERS¹

(As on 15.11.2010)

Dr. Manmohan Singh	Prime Minister and also in-charge of the Ministries/ Departments not specifically allocated to the charge of any Minister, viz., (i) Ministry of Personnel, Public Grievances & Pensions; (ii) Planning Commission; (iii) Department of Atomic Energy; (iv) Department of Space; and (v) Ministry of Culture
Shri Pranab Mukherjee	Minister of Finance
Shri Sharad Pawar	Minister of Agriculture; Minister of Consumer Affairs, Food and Public Distribution
Shri A.K. Antony	Minister of Defence
Shri P. Chidambaram	Minister of Home Affairs
Km. Mamata Banerjee	Minister of Railways
Shri S. M. Krishna	Minister of External Affairs
Shri Virbhadra Singh	Minister of Steel
Shri Vilasrao Deshmukh	Minister of Heavy Industries & Public Enterprises
Shri Ghulam Nabi Azad	Minister of Health & Family Welfare
Shri Sushilkumar Shinde	Minister of Power
Shri M. Veerappa Moily	Minister of Law and Justice
Dr. Farooq Abdullah	Minister of New and Renewable Energy
Shri S. Jaipal Reddy	Minister of Urban Development
Shri Kamal Nath	Minister of Road Transport and Highways
Shri Vayalar Ravi	Minister of Overseas Indian Affairs
Shri Dayanidhi Maran	Minister of Textiles
Shri Murli Deora	Minister of Petroleum and Natural Gas
Smt. Ambika Soni	Minister of Information and Broadcasting
Shri Mallikarjun Kharge	Minister of Labour and Employment
Shri Kapil Sibal	Minister of Human Resource Development; Minister of Communications and Information Technology; Minister of Science and Technology

1. Source : Cabinet Secretariat website http://cabsec.nic.in/Council_minister_of_state.php

Shri B. K. Handique	Minister of Mines and Minister of Development of North Eastern Region
Shri Anand Sharma	Minister of Commerce and Industry
Shri C. P. Joshi	Minister of Rural Development and Minister of Panchayati Raj
Kumari Sailja	Minister of Housing and Urban Poverty Alleviation and Minister of Tourism
Shri Subodh Kant Sahay	Minister of Food Processing Industries
Dr. M. S. Gill	Minister of Youth Affairs and Sports
Shri G. K. Vasani	Minister of Shipping
Shri Pawan Kumar Bansal	Minister of Parliamentary Affairs and Minister of Water Resources
Shri Mukul Wasnik	Minister of Social Justice and Empowerment
Shri Kantilal Bhuria	Minister of Tribal Affairs
Shri M. K. Alagiri	Minister of Chemicals and Fertilizers.

MINISTERS OF STATE (Independent Charge) (as on 18.04.2010)²

Shri Praful Patel	Minister of State (Independent Charge) of the Ministry of Civil Aviation
Shri Shriparkash Jaiswal	Minister of State (Independent Charge) of the Ministry of Coal and Minister of State (Independent Charge) of the Ministry of Statistics and Programme Implementation
Smt Salman Khursheed	Minister of State (Independent Charge) of the Ministry of Corporate Affairs and Minister of State (Independent Charge) of the Ministry of Minority Affairs
Shri Dinsha J. Patel	Minister of State (Independent Charge) of the Ministry of Micro, Small and Medium Enterprises
Smt. Krishna Tirath	Minister of State (Independent Charge) of the Ministry of Women and Child Development
Shri Jairam Ramesh	Minister of State (Independent Charge) of the Ministry of Environment and Forests

MINISTERS OF STATE (MoS)³

Shri Shrikant Jena	Minister of State in the Ministry of Chemicals and Fertilizers
Shri E. Ahammed	Minister of State in the Ministry of Railways
Shri Mullappally Ramachandran	Minister of State in the Ministry of Home Affairs

2. Source : Cabinet Secretariat website http://cabsec.nic.in/Council_Cabinet_independent.php

3. Source : Cabinet Secretariat website http://cabsec.nic.in/Council_minister_of_state.php

Shri V. Narayanasamy	Minister of State in the Ministry of Planning; Minister of State in the Ministry of Parliamentary Affairs; Minister of State in the Ministry of Personnel, Public Grievances & Pensions
Shri Jyotiraditya Madhavrao Scindia	Minister of State in Ministry of Commerce and Industry
Smt. D. Purandeswari	Minister of State in the Ministry of Human Resource Development
Shri K. H. Muniappa	Minister of State in the Ministry of Railways
Shri Ajay Maken	Minister of State in the Ministry of Home Affairs
Smt. Panabaka Lakshmi	Minister of State in the Ministry of Textiles
Shri Namu Narain Meena	Minister of State in the Ministry of Finance
Shri M. M. Pallam Raju	Minister of State in the Ministry of Defence
Shri Saugata Ray	Minister of State in the Ministry of Urban Development
Shri S. S. Palanimanickam	Minister of State in the Ministry of Finance
Shri Jitin Prasada	Minister of State in the Ministry of Petroleum and Natural Gas
Shri A. Sai Prathap	Minister of State in the Ministry of Steel
Smt. Preneet Kaur	Minister of State in the Ministry of External Affairs
Shri Gurudas Kamat	Minister of State in the Ministry of Communication and Information Technology
Shri Harish Rawat	Minister of State in the Ministry of Labour and Employment
Prov. K. V. Thomas	Minister of State in the Ministry of Agriculture and Minister of State in the Ministry of Consumer Affairs, Food and Public Distribution
Shri Bharatsinh Solanki	Minister of State in the Ministry of Power
Shri Mahedev S. Khandela	Minister of State in the Ministry of Road Transport and Highways
Shri Dinesh Trivedi	Minister of State in the Ministry of Health and Family Welfare
Shri Sisir Adhikari	Minister of State in the Ministry of Rural Development
Shri Sultan Ahmed	Minister of State in the Ministry of Tourism
Shri Mukul Roy	Minister of State in the Ministry of Shipping
Shri Choudhury Mohan Jatua	Minister of State in the Ministry of Information and Broadcasting
Shri D. Napoleon	Minister of State in the Ministry of Social Justice and Empowerment

Dr. S. Jagathrakshakan	Minister of State in the Ministry of Information and Broadcasting
Shri S. Gandhiselvan	Minister of State in the Ministry of Health and Family Welfare
Shri Tusharbhai Chaudhary	Minister of State in the Ministry of Tribal Affairs
Shri Sachin Pilot	Minister of State in the Ministry of Communications and Information Technology
Shri Arun Yadav	Minister of State in the Ministry of Heavy Industries and Public Enterprises
Smt Pratik Prakashbapu Patil	Minister of State in the Ministry of Youth Affairs and Sports
Shri R. P. N. Singh	Minister of State in the Ministry of Road Transport and Highways
Shri Vincent Pala	Minister of State in the Ministry of Water Resources
Shri Pradeep Jain	Minister of State in the Ministry of Rural Development
Ms. Agatha Sangma	Minister of State in the Ministry of Rural Development

MEMBERS OF PARLIAMENT

RAJYA SABHA (State wise List)⁴

Chairman	Shri Mohammed Hamid Ansari
Deputy Chairman	Shri K. Rahman Khan

Name	Party/Group
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STATES

ANDHRA PRADESH (18)

1.	Alvi Shri Raashid	INC
2.	Chowdary Shri Y.S.	TDP
3.	Khan Shri Mohd. Ali	INC
4.	Nandamuri Harikrishna Shri	TDP
5.	Nandi Yellaiah Shri	INC
6.	Pasha Shri Syed Azeez	CPI
7.	Ramesh Shri Jairam	INC
8.	Rao Dr. Dasari Narayana	INC
9.	Rao Dr. K. Keshava	INC

4. Source : Rajya Sabha Website <http://rajyasabha.nic.in>

10.	Rao Dr. K.V.P. Ramachandra	INC
11.	Rao Shri V. Hanumantha	INC
12.	Ratna Bai Smt. T.	INC
13.	Reddy Shri G. Sanjeeva	INC
14.	Reddy Shri M.V. Mysura	TDP
15.	Reddy Dr. N. Janardhana	INC
16.	Reddy Dr. T. Subbarami	INC
17.	Seelam Shri Jesudasu	INC
18.	Sudharani Smt. Gundu	TDP

ARUNACHAL PRADESH -1

19.	Mithi Mukut	INC
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ASSAM - 7

20.	Baishya Shri Birendra Prasad	AGP
21.	Condpan Shri Silvius	INC
22.	Daimary Shri Biswajit	BPF
23.	Das Shri Kumar Deepak	AGP
24.	Faruque Smt. Naznin	INC
25.	Kalita Shri Bhubaneswar	INC
26.	Singh Dr. Manmohan	INC

BIHAR - 16

27.	Ali Shri Sabir	LJP
28.	Ansari Shri Ali Anwar	JD(U)
29.	Gupta Shri Prem Chand	RJD
30.	Husain Shri Jabir	RJD
31.	Kushwaha Shri Upndra	JD(U)
32.	Mahendra Prasad Dr.	JD(U)
33.	Paswan Shri Ram Vilas	LJP
34.	Prasad Shri Rajniti	RJD
35.	Prasad Shri Ravi Shankar	BJP
36.	Rudy Shri Rajiv Pratap	BJP
37.	Sahani Prof. Anil Kumar	JD(U)
38.	Singh Shri N.K.	JD(U)
39.	Singh Shri Ramchandra Prasad	JD(U)

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|-----|-----------------------|-------|
| 40. | Thakur Dr. C.P. | BJP |
| 41. | Tiwari Shri Shivanand | JD(U) |
| 42. | Yadav Shri Ram Kripal | RJD |

CHHATTISGARH – 5

- | | | |
|-----|-----------------------|-----|
| 43. | Kidwai Smt. Mohsina | INC |
| 44. | Sai Shri Nand Kumar | BJP |
| 45. | Singh Shri Shivpratap | BJP |
| 46. | Vora Shri Motilal | INC |
| 47. | Vyas Shri Shreegopal | BJP |

GOA – 1

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|-----|----------------------------|-----|
| 48. | Naik Shri Shantaram Laxman | INC |
|-----|----------------------------|-----|

GUJARAT – 11

- | | | |
|-----|------------------------------------|-----|
| 49. | Jaitley Shri Arun | BJP |
| 50. | Kshatriya Prof. Alka Balram | INC |
| 51. | Naik Shri Pravin | BJP |
| 52. | Parmar Shri Bharatsinh Prabhatsinh | BJP |
| 53. | Patel Shri Ahmed | INC |
| 54. | Patel Shri Kanjibhai | BJP |
| 55. | Patel Shri Surendra Motilal | BJP |
| 56. | Rashtrapal Shri Praveen | INC |
| 57. | Rupala Shri Parshottam Khodabhai | BJP |
| 58. | Rupani Shri Vijaykumar | BJP |
| 59. | Thakur Shri Natuji Halaji | BJP |

HARYANA – 5

- | | | |
|-----|------------------------------|------|
| 60. | Batra Shri Shadi Lal | INC |
| 61. | Parajapati Shri Ranbir Singh | INLD |
| 62. | Ram Prakash Dr. | INC |
| 63. | Singh Shri Birender | INC |
| 64. | Singh Shri Ishwar | INC |

HIMACHAL PRADESH – 3

- | | | |
|-----|-------------------------|-----|
| 65. | Shanta Kumar Shri | BJP |
| 66. | Sood Smt. Bimla Kashyap | BJP |
| 67. | Thakur Smt. Viplove | INC |

JAMMU & KASHMIR – 4

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|-----|-----------------------|-------|
| 68. | Azad Shri Ghulam Nabi | INC |
| 69. | Ratanpuri Shri G.N. | J&KNC |
| 70. | Shafi Shri Mohammad | J&KNC |
| 71. | Soz Prof. Saif-ud-Din | INC |

JHARKHAND – 6

- | | | |
|-----|--------------------------------|-----|
| 72. | Ahluwalia Shri S.S. | BJP |
| 73. | Nathwani Shri Parimal | IND |
| 74. | Rebello Ms. Mabel | INC |
| 75. | Sahu Shri Dhiraj Prasad | INC |
| 76. | Singh Shri Jai Prakash Narayan | BJP |
| 77. | Singh Shri Kanwar Deep | JMM |

KARNATAKA – 12

- | | | |
|-----|---------------------------|-------|
| 78. | Chandrasekhar Shri Rajeev | IND |
| 79. | Fernandes Shri Oscar | INC |
| 80. | Jois Shri M. Rama | BJP |
| 81. | Khan Shri K. Rahman | INC |
| 82. | Kore Dr. Prabhakar | BJP |
| 83. | Krishna Shri S.M. | INC |
| 84. | Lad Shri Anil H. | INC |
| 85. | Mallya Dr. Vijay | IND |
| 86. | Manjunatha Shri Aayanur | BJP |
| 87. | Murthy Shri M. Rajasekara | JD(S) |
| 88. | Naidu Shri M. Venkaiah | BJP |
| 89. | Shanappa Shri K.B. | BJP |

KERALA – 9

- | | | |
|-----|---------------------|--------|
| 90. | Achuthan Shri M.P. | CPI |
| 91. | Antony Shri A.K. | INC |
| 92. | Balagopal Shri K.N. | CPI(M) |
| 93. | Ismail Shri K.E. | CPI |
| 94. | Kurien Prof. P.J. | INC |
| 95. | Rajan Shri P.R. | CPI(M) |
| 96. | Rajeeve Shri P. | CPI(M) |
| 97. | Ravi Shri Vayalar | INC |
| 98. | Seema Dr. T.N. | CPI(M) |

MADHYA PRADESH – 11

99.	Dave Shri Anil Madhav	BJP
100.	Jha Shri Prabhat	BJP
101.	Kesari Shri Narayan Singh	BJP
102.	Mitra Dr. Chandan	BJP
103.	Sadho Dr. Vijaylaxmi	INC
104.	Sharma Shri Raghunandan	BJP
105.	Singh Shri Arjun	INC
106.	Singh Smt. Maya	BJP
107.	Solanki Shri Kaptan Singh	BJP
108.	Uikey Miss Anusuiya	BJP
109.	Verma Shri Vikram	BJP

MAHARASHTRA – 19

110.	Adik Shri Govindrao	NCP
111.	Apte Shri Balavant <i>Alias</i> Bal	BJP
112.	Chavan Shri Prithviraj	INC
113.	Darda Shri Vijay Jawaharlal	INC
114.	Deora Shri Murli	INC
115.	Deshmukh Shri Vilasrao Dagadojirao	INC
116.	Dhoot Shri Rajkumar	SS
117.	Goyal Shri Piyush	BJP
118.	Jain Shri Ishwarlal Shankarlal	NCP
119.	Javadekar Shri Prakash	BJP
120.	Joshi Dr. Manohar	SS
121.	Mohite-Patil Shri Ranjitsinh Vijaysinh	NCP
122.	Pande Shri Avinash	INC
123.	Raut Shri Bharkumar	SS
124.	Raut Shri Sanjay	SS
125.	Shukla Shri Rajeev	INC
126.	Tariq Anwar Shri	NCP
127.	Trivedi Shri Y.P.	NCP
128.	Waghmare Dr. Janardhan	NCP

MANIPUR – 1

129.	Keishing Shri Rishang	INC
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MEGHALAYA - 1

130. Sangma Shri Thomas NCP

MIZORAM - 1

131. Lalhming Liana Shri MNF

NAGALAND - 1

132. Zhimomi Shri Khekiho NPF

ORISSA - 10

133. Behera Shri Shashi Bhusan BJD

134. Khuntia Shri Rama Chandra INC

135. Mangala Kisan Shri BJD

136. Mohanty Shri Kishore Kumar BJD

137. Pany Shri Rudra Narayan BJP

138. Parida Shri Baishnab BJD

139. Pradhan Smt. Renubala BJD

140. Punj Shri Balbir BJP

141. Tiriya Ms. Sushila INC

PUNJAB - 7

142. Ashwani Kumar Shri INC

143. Bhunder Shri Balwinder Singh SAD

144. Dhindsa Sardar Sukhdev Singh SAD

145. Gill Dr. M.S. INC

146. Gujral Shri Naresh SAD

147. Khanna Shri Avinash Rai BJP

148. Soni Smt. Ambika INC

RAJASTHAN - 10

149. Agarwal Shri Ramdas BJP

150. Anand Sharma Shri INC

151. Badnore Shri V.P. Singh BJP

152. Budania Shri Narendra INC

153. Jethmalani Shri Ram BJP

154. Mathur Shri Om Prakash BJP

155. Pilonia Dr. Gyan Prakash BJP

156. Singhvi Dr. Abhishek Manu INC

157. Tak Shri Ashk Ali INC
 158. Thakur Dr. Prabha INC

SIKKIM – 1

159. Lapcha Shri O.T. SDF

TAMILNADU – 18

160. Balaganga Shri N. AIADMK
 161. Elavarasan Shri A. AIADMK
 162. Gnanadesikan Shri B.S. INC
 163. Jinnah Shri A.A. DMK
 164. Kanimozhi Smt. DMK
 165. Maitreyan Dr. V. AIADMK
 166. Natarajan Smt. Jayanthi INC
 167. Natchiappan Dr. E.M. Sudarsana INC
 168. Pandian Shri Paul Manoj AIADMK
 169. Raja Shri D. CPI
 170. Ramalingam Dr. K.P. DMK
 171. Ramalingam Shri K.V. AIADMK
 172. Rangarajan Shri T.K. CPI(M)
 173. Selvaganapathi Shri T.M. DMK
 174. Siva Shri Tiruchi DMK
 175. Stanley Smt. Vasanthi DMK
 176. Thangavelu Shri S. DMK
 177. Vasan Shri G.K. INC

TRIPURA – 1

178. Baidya Smt. Jharna Das CPI(M)

UTTAR PRADESH – 31

179. Adeeb Shri Mohammed IND
 180. Agarwal Shri Naresh Chandra BSP
 181. Ali Shri Munquad BSP
 182. Ansari Shri Salim BSP
 183. Baghel Prof. S.P. Singh BSP
 184. Ganga Charan Shri BSP
 185. Gupta Dr. Akhilesh Das BSP
 186. Jai Prakash Shri BSP

187.	Jugul Kishore Shri	BSP
188.	Karimpuri Shri Avtar Singh	BSP
189.	Kashyap Shri Narendra Kumar	BSP
190.	Katiyar Shri Vinay	BJP
191.	Khabri Shri Brijlal	BSP
192.	Kureel Shri Pramod	BSP
193.	Madani Shri Mahmood A.	RLD
194.	Mahendra Mohan Shri	SP
195.	Masood Shri Rasheed	SP
196.	Mishra Shri Kalraj	BJP
197.	Misra Shri Satish Chandra	BSP
198.	Naqvi Shri Mukhtar Abbas	BJP
199.	Pathak Shri Brajesh	BSP
200.	Rai Smt. Kusum	BJP
201.	Rajan Shri Ambeth	BSP
202.	Rajaram Shri	BSP
203.	Saini Shri Rajpal Singh	BSP
204.	Sharma Shri Satish	INC
205.	Singh Shri Amar	IND
206.	Singh Shri Mohan	SP
207.	Singh Shri Veer	BSP
208.	Yadav Prof. Ram Gopal	SP
209.	Yadav Shri Veer Pal Singh	SP

UTTARAKHAND – 3

210.	Chaturvedi Shri Satyavrat	INC
211.	Koshyari Shri Bhagat Singh	BJP
212.	Tarun Vijay Shri	BJP

WEST BENGAL – 16

213.	Amin Shri Mohammed	CPI(M)
214.	Bose Shri Swapan Sadhan	AITC
215.	Chakraborty Shri Shyamal	CPI(M)
216.	Chatterjee Shri Prasanta	CPI(M)
217.	Karat Smt. Brinda	CPI(M)
218.	Malihabadi Shri Ahmad Saeed	IND
219.	Moinul Hassan Shri	CPI(M)
220.	Mukherji Dr. Barun	AIFB

221.	Pathak Shri Saman	CPI(M)
222.	Roy Shri Abani	RSP
223.	Roy Shri Mukul	AITC
224.	Roy Shri Tarini Kanta	CPI(M)
225.	Sen Shri Tapan Kumar	CPI(M)
226.	Sengupta Shri Arjun Kumar	IND
227.	Singh Shri R.C.	CPI
228.	Yachury Shri Sitaram	CPI(M)

UNION TERRITORIES

NATIONAL CAPITAL TERRITORY OF DELHI – 3

229.	Dwivedi Shri Janardan	INC
230.	Hashmi Shri Parvez	INC
231.	Karan Singh Dr.	INC

PUDUCHERRY – 1

232.	Kanan Shri P.	INC
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NOMINATED(NOM) – 11 (VACANT-10)

233.	Aiyar Shri Mani Shankar	INC
234.	Akhtar Shri Javed	NOM
235.	Benegal Shri Shyam	NOM
236.	Bhartia Smt. Shobhana	NOM
237.	Dua Shri H.K.	NOM
238.	Ganguly Dr. Ashok S.	NOM
239.	Jayashree Smt. B.	NOM
240.	Munda Dr. Ram Dayal	INC
241.	Mungekar Dr. Bhalchandra	NOM
242.	Swaminathan Prof. M.S.	NOM
243.	Vatsyayan Dr. (Smt.) Kapila	NOM

LOK SABHA (State Wise List)⁵**Speaker** : Smt. Meira Kumar

State/Constituency	Name of the Member	Party/Group
ANDHRA PRADESH (42)		
1 Adilabad	Rathod, Shri Ramesh	TDP
2 Amalapuram(SC)	Harsha Kumar, Shri G.V.	INC
3 Anakapalli	Hari, Shri Sabbam	INC
4 Anantapur	Reddy, Shri Anantha Venkatarami	INC
5 Araku(ST)	Deo, Shri V. Kishore Chandra	INC
6 Bapatla (SC)	Panabaka, Smt. Lakshmi	INC
7 Bhongir	Reddy, Shri Komatireddy Raj Gopal	INC
8 Chelvella	Reddy, Shri Jaipal Sudini	INC
9 Chittoor(SC)	Sivaprasad, Dr. Naramalli	TDP
10 Eluru	Rao, Dr. Kavuri Samba Siva	INC
11 Guntur	Rao, Shri Rayapati Sambasiva	INC
12 Hindupur	Nimmala, Shri Kristoppa	TDP
13 Hyderabad	Owaisi, Shri Asaduddin	AIMIM
14 Kadapa	Vacant	—
15 Kakinada	Raju, Dr. M. Mangapati Pallam	INC
16 Karimnagar	Ponnam, Shri Prabhakar	INC
17 Khummam	Rao, Shri Nama Nageswara	TDP
18 Kurnool	Reddy, Shri Kotla Jaya Surya Prakash	INC
19 Machilipatnam	Rao, Shri Konakalla Narayana	TDP
20 Mahabubabad (ST)	Balram, Shri Porika Naik	INC
21 Mahabubnagar	Rao, Shri Kalva Kuntla Chandrasekhar	TRS
22 Malkajgiri	Sathyanarayana, Shri Sarvey	INC
23 Medak	Shanthi, Smt. M. Vijaya	TRS
24 Nagarkurnool(SC)	Jagannath, Dr. M.	INC
25 Nalgonda	Gutha, Shri Sukender Reddy	INC
26 Nandyal	Reddy, Shri S.P.Y.	INC
27 Narasaraopet	Reddy, Shri Modugula Venugopala	TDP
28 Narsapuram	Kanumuri, Shri Bapi Raju	INC
29 Nellore	Reddy, Shri Mekapati Rajamohan	INC
30 Nizamabad	Yaskhi, Shri Madhu Goud	INC
31 Ongole	Reddy, Shri Magunta Sreenivasulu	INC
32 Peddapalle (SC)	Vivekanand, Dr. Gaddam	INC
33 Rajahmundry	Vundavalli, Shri Aruna Kumar	INC
34 Rajampet	Annayyagari, Shri Sai Prathap	INC
35 Secunderabad	Yadav, Shri M. Anjan Kumar	INC

36	Srikakulam	Killi, Dr. (Smt.) Kruparani	INC
37	Tirupati (SC)	Chinta Mohan, Dr.	INC
38	Vijayawada	Lagadapati, Shri Rajagopal	INC
39	Visakhapatnam	Purandeswari, Smt. Daggubati	INC
40	Vizianagaram	Botcha Lakshmi, Dr. (Smt.) Jhansi	INC
41	Warangal(SC)	Siricilla, Shri Rajaiah	INC
42	Zahirabad	Shetkar, Shri Suresh Kumar	INC

ARUNACHAL PRADESH (2)

43	Arunachal East	Ering, Shri Ninong	INC
44	Arunachal West	Takam Sanjoy, Shri	INC

ASSAM (14)

45	Autonomous District(ST)	Engti, Shri Biren Singh	INC
46	Barpeta	Hussain, Shri Ismail	INC
47	Dhubri	Ajmal, Maulana Badruddin	AIUDF
48	Dibrugarh	Ghatowar, Shri Paban Singh	INC
49	Guwahati	Chakravarty, Smt. Bijoya	BJP
50	Jorhat	Handique, Shri Bijoy Krishna	INC
51	Kaliabor	Gogoi, Shri Dip	INC
52	Karimganj(SC)	Suklabaidya, Shri Lalit Mohan	INC
53	Kokrajhar(ST)	Bwiswamuthiary, Shri Sansuma Khunggur	BPF
54	Lakhimpur	Narah, Smt. Ranees	INC
55	Mangaldoi	Deka, Shri Ramen	BJP
56	Nawgong	Gohain, Shri Rajen	BJP
57	Silchar	Purkayashtha, Shri Kabindra	BJP
58	Tezpur	Toppo, Shri Joseph	AGP

BIHAR (40)

59	Araria	Singh, Shri Pradeep Kumar	BJP
60	Arrah	Singh, Smt. Meena	JD(U)
61	Aurangabad	Singh, Shri Sushil Kumar	JD(U)
62	Begusarai	Hassan, Dr. Monazir	JD(U)
63	Bhagalpur	Hussain, Shri Syed Shahnawaz	BJP
64	Buxar	Singh, Shri Jagadanand	RJD
65	Darbhanga	Azad, Shri Kirti (Jha)	BJP
66	Gaya (SC)	Manjhi, Shri Hari	BJP
67	Gopalganj (SC)	Ram, Shri Purnmasi	JD(U)
68	Hajipur(SC)	Das, Shri Ram Sundar	JD(U)
69	Jahanabad	Sharma, Shri Jagdish	JD(U)
70	Jamui (SC)	Choudhary, Shri Bhudeo	JD(U)
71	Jhanjharpur	Mandal, Shri Mangani Lal	JD(U)
72	Karakat	Singh, Shri Mahabali	JD(U)

73	Katihar	Choudhary, Shri Nikhil Kumar	BJP
74	Khagaria	Yadav, Shri Dinesh Chandra	JD(U)
75	Kishanganj	Mohammad, Maulana Asrarul Haque	INC
76	Madhepura	Yadav, Shri Sharad	JD(U)
77	Madhubani	Yadav, Shri Hukmdev Narayan	BJP
78	Maharajganj	Singh, Shri Umashanker	RJD
79	Munger	Singh, Shri Rajiv Ranjan (Lalan)	JD(U)
80	Muzaffarpur	Nishad, Capt. (Retd.) Jainarain Prasad	JD(U)
81	Nalanda	Kumar, Shri Kaushalendra	JD(U)
82	Nawada	Singh, Dr. Bhola	BJP
83	Paschim Champaran	Jaiswal, Dr. Sajnay	BJP
84	Pataliputra	Yadav, Prof. Ranjan Prasad	JD(U)
85	Patna Sahib	Sinha, Shri Shatrughan Prasad	BJP
86	Purnia	Singh, Shri Uday	BJP
87	Purvi Champaran	Singh, Shri Radha Mohan	BJP
88	Samastipur (SC)	Hazari, Shri Maheshwar	JD(U)
89	Saran	Lalu Prasad, Shri	RJD
90	Sasaram (SC)	Kumar, Smt. Meira	INC
91	Sheohar	Rama Devi, Smt.	BJP
92	Sitamarhi	Roy, Dr. Arjun	JD(U)
93	Siwan	Yadav, Shri Om Prakash	Ind
94	Supaul	Kumar, Shri Vishwa Mohan	JD(U)
95	Ujjarpur	Devi, Smt. Ashwamedh	JD(U)
96	Vaishali	Singh, Dr. Raghuvansh Prasad	RJD
97	Valmiki Nagar	Mahto, Shri Baidyanath Prasad	JD(U)
98	Banka	(Vacant Constitutencies)	

CHHATTISGARH (11)

99	Bastar (ST)	Kashyap, Shri Baliram	BJP
100	Bilaspur	Judeo, Shri Dilip Singh	BJP
101	Durg	Pandey, Km. Saroj	BJP
102	Janjgir-Champa (SC)	Patle, Smt. Kamla Devi	BJP
103	Kanker(ST)	Potai, Shri Sohan	BJP
104	Korba	Mahant, Dr. Chanran Das	INC
105	Mahasamund	Sahu, Shri Chandu Lal	BJP
106	Raigarh (ST)	Sai, Shri Vishnu Deo	BJP
107	Raipur	Bais, Shri Ramesh	BJP
108	Rajnandgaon	Yadav, Shri Madhusudan	BJP
109	Surguja (ST)	Singh, Shri Murarilal	BJP

GOA (2)

110	North Goa	Naik, Shri Shripad Yesso	BJP
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111	South Goa	Sardinha, Shri Francisco	INC
GUJARAT (26)			
112	Ahmedabad East	Pathak, Shri Harin	BJP
113	Ahmedabad West (SC)	Solanki, Dr. Kirti Premjibhai	BJP
114	Amreli	Kachhadia, Shri Naranbhai	BJP
115	Anand	Solanki, Shri Bharatsinh Madhavsinh	INC
116	Banaskantha	Gadhvi, Shri Mukesh Bhairavdanji	INC
117	Bardoli (ST)	Chaudhary, Dr. Tushar Amarsinh	INC
118	Bharuch	Vasava, Shri Mansukhbhai D.	BJP
119	Bhavnagar	Rana, Shri Rajendrasinh (Raju Rana)	BJP
120	Chhota Udaipur (ST)	Rathwa, Shri Ramsinh Patalyabhai	BJP
121	Dahod (ST)	Taviad, Dr. (Smt.) Prabha Kishore	INC
122	Gandhinagar	Advani, Shri Lal Krishna	BJP
123	Jamnagar	Maadam, Shri Vikrambhai Arjanbhai	INC
124	Junagadh	Solanki, Shri Dinubhai Boghabhai	BJP
125	Kachchh (SC)	Jat, Smt. Poonam Veljibhai	BJP
126	Kheda	Patel, Shri Dinsha J.	INC
127	Mehesana	Patel, Smt. Jayshreeben	BJP
128	Navsari	Patil, Shri C.R.	BJP
129	Panchmahal	Chauhan, Shri Prabhatsinh Pratapsinh	BJP
130	Patna	Thakor, Shri Jagdish	INC
131	Porbandar	Radadiya, Shri Vitthalbhai Hansrajbhai	INC
132	Rajkot	Bavaliya, Shri Kunwarjibhai Mohanbhai	INC
133	Sabarkantha	Chauhan, Dr. Mahendrasinh Pruthvisinh	BJP
134	Surat	Jardosh, Smt. Darshana Vikram	BJP
135	Surendranagar	Patel, Shri Somabhai Gandalal Koli	INC
136	Vadodara	Shukla, Shri Balkrishna Khanderao	BJP
137	Valsad (ST)	Patel, Shri Kishanbhai Vestabhai	INC
HARYANA (10)			
138	Ambala (SC)	Selja, Kumari	INC
139	Bhiwani-Mahendragarh	Choudhry, Smt. Shruti	INC
140	Faridabad	Bhadana, Shri Avtar Singh	INC
141	Gurgaon	Rao, Shri Inderjit Singh	INC
142	Hisar	Bhajan Lal, Shri	HJC
143	Karnal	Sharma, Dr. Arvind Kumar	INC
144	Kurukshetra	Jindal, Shri Naveen	INC
145	Rohtak	Hooda, Shri Deepender Singh	INC
146	Sirsa (SC)	Tanwar, Shri Ashok	INC
147	Sonapat	Malik, Shri Jitender Singh	INC

HIMACHAL PRADESH (4)

148	Hamirpur	Thakur, Shri Anurag Singh	BJP
149	Kangra	Sushant, Dr. Rajan	BJP
150	Mandi	Singh, Shri Virbhadra	INC
151	Shimla (SC)	Kashyap, Shri Virender	BJP

JAMMU & KASHMIR (6)

152	Anantnag	Beg. Dr. Mehboob	J&KNC
153	Baramulla	Shariq, Shri Sharifuddin	J&KNC
154	Jammu	Sharma, Shri Madan Lal	INC
155	Ladakh	Khan, Shri Hassan	Ind.
156	Srinagar	Abdullah, Dr. Farooq	J&KNC
157	Udhampur	Singh, Chaudhary Lal	INC

JHARKHAND (14)

158	Chatra	Namdhari, Shri Inder Singh	Ind.
159	Dhanbad	Singh, Shri Pashupati Nath	BJP
160	Dumka (ST)	Soren, Shri Shibu	JMM
161	Giridih	Pandey, Shri Ravindra Kumar	BJP
162	Godda	Dubey, Shri Nishikant	BJP
163	Hazaribagh	Sinha, Shri Yashwant	BJP
164	Jamshedpur	Munda, Shri Arjun	BJP
165	Khunti (ST)	Munda, Shri Kariya	BJP
166	Kodarma	Marandi, Shri Babu Lal	JVM(P)
167	Lohardanga (ST)	Bhagat, Shri Sudarshan	BJP
168	Palamu (SC)	Baitha, Shri Kameshwar	JMM
169	Rajmahal (ST)	Baitha, Shri Kameshwar	JMM
169	Rajmahal (ST)	Besra, Shri Devidhan	BJP
170	Ranchi	Sahay, Shri Subodh Kant	INC
171	Singhbhum (ST)	Kora, Shri Madhu	Ind.

KARNATAKA (28)

172	Bagalkot	Gaddigoudar, Shri Parvatagouda Chandanagouda	BJP
173	Bengaluru Central	Mohan, Shri P.C.	BJP
174	Bengaluru North	Gowda, Shri Chandre D.B.	BJP
175	Bengaluru Rural	Kumaraswamy, Shri H.D.	JD(S)
176	Bengaluru South	Ananth Kumar, Shri	BJP
177	Belgaum	Angadi, Shri Suresh Chanabasappa	BJP
178	Bellary (ST)	Shantha, Smt. J	BJP
179	Bidar	Singh, Shri N. Dharam	INC
180	Bijapur (SC)	Jigajinagi, Shri Ramesh Chandappa	BJP

181	Chamrajanagar (SC)	Dhruvanarayana, Shri Rangaswamy	INC
182	Chikkaballapur	Moily, Dr. (Shri) M. Veerappa	INC
183	Chikkodi	Katti, Shri Ramesh Vishwanath	BJP
184	Chitradurga (SC)	Swamy, Shri Janardhana	BJP
185	Dakshina Kannada	Kateel, Shri Nalin Kumar	BJP
186	Davanagere	Siddeshwara, Shri Gowdar Mallikarjunappa	BJP
187	Dharwad	Joshi, Shri Pralhad Venkatesh	BJP
188	Gulbarga (SC)	Kharge, Shri Mallikarjun	INC
189	Hassan	Devegowda, Shri H.D.	JD(S)
190	Haveri	Udasi, Shri Shivkumar Chanabasappa	BJP
191	Kolar (SC)	Muniyappa, Shri K.H.	INC
192	Koppal	Shivaramagouda, Shri	BJP
193	Mandya	Swamy, Shri N. Chaluvarayya	JD(S)
194	Mysore	Vishwanath, Shri Adagooru Huchegowda	INC
195	Raichur(ST)	Pakkirappa, Shri S.	BJP
196	Shimoga	Yeddyurappa, Shri Raghavendra	BJP
197	Tumkur	Basavaraj, Shri Gangasandra Siddappa	BJP
198	Udupi Chikmagalur	Gowda, Shri D.V. Sadananda	BJP
199	Uttara Kannada	Hedgde, Shri Anant Kumar Dattatreya	BJP

KERALA (20)

200	Alappuzha	Venugopal, Shri K.C.	INC
201	Alathur(SC)	Biju, Shri Parayamparanbil Kuttappan	CPI(M)
202	Attingal	Sampath, Shri Anirudhan	CPI(M)
203	Chalakudy	Dhanapalan, Shri K.P.	INC
204	Ernakulam	Thomas, Prof. Kuruppassery Verkey	INC
205	Idukki	Thomas, Shri P.T.	INC
206	Kannur	Sudhakaran, Shri Kumbakudi	INC
207	Kasaragod	Karunakaran, Shri P.	CPI(M)
208	Kollam	Kurup, Shri N. Peethambara	INC
209	Kottayam	Mani, Shri Jose K.	KC(M)
210	Kozhikode	Raghavan, Shri M.K.	INC
211	Malappuram	Ahamed, Shri E.	MLKSC
212	Mavelikkara (SC)	Kodikunnil, Shri Suresh	INC
213	Palakkad	Rajesh, Shri M.B.	CPI(M)
214	Pathanamthitta	Antony, Shri Anto	INC
215	Ponnani	Basheer, Shri E.T. Mohammed	MLKSC
216	Thiruvananthapuram	Tharoor, Dr. Shashi	INC
217	Thrissur	Chacko, Shri P.C.	INC
218	Vadakara	Mullappally, Shri Ramachandran	INC
219	Wayanad	Shanavas, Shri M.I.	INC

MADHYA PRADESH (29)

220	Balaghat	Deshmukh, Shri K.D.	BJP
221	Betul(ST)	Dhurve, Smt. Jyoti	BJP
222	Bhind(SC)	Argal, Shri Ashok	BJP
223	Bhopal	Joshi, Shri Kailash	BJP
224	Chhindwara	Kamal Nath, Shri	INC
225	Damoh	Lodhi, Shri Shivraj Singh	BJP
226	Dewas(SC)	Verma, Shri Sajjan Singh	INC
227	Dhar(ST)	Rajukhedi, Shri Gajendra Singh	INC
228	Guna	Scindia, Shri Jyotiraditya Madhavrao	INC
229	Gwalior	Scindia, Smt. Yashodhara Raje	BJP
230	Hoshangabad	Singh, Shri Uday Pratap	INC
231	Indore	Mahajan, Smt. Sumitra	BJP
232	Jabalpur	Singh, Shri Rakesh	BJP
233	Khajuraho	Bundela, Shri Jeetendra Singh	BJP
234	Khandwa	Yadav, Shri Arun Subhashchandra	INC
235	Khargone (ST)	Solanki, Shri Makhansingh	BJP
236	Mandla (ST)	Masram, Shri Basori Singh	INC
237	Mandsour	Natrajan, Km. Meenakshi	INC
238	Morena	Tomar, Shri Narendra Singh	BJP
239	Rajgarh	Amlabe, Shri Narayan Singh	INC
240	Ratlam (ST)	Bhuria, Shri Kantilal	INC
241	Rewa	Patel, Shri Deoraj Singh	BSP
242	Sagar	Singh, Shri Bhoopendra	BJP
243	Satna	Singh, Shri Ganesh	BJP
244	Shahdol(ST)	Singh, Smt. Rajesh Nandini	INC
245	Sidhi	Mishra, Shri Govind Prasad	BJP
246	Tikamgarh (SC)	Virendra Kumar, Dr.	BJP
247	Ujjain (SC)	Guddu, Shri Prem Chand	INC
248	Vidisha	Swaraj, Smt. Sushma	BJP

MAHARASHTRA (48)

249	Ahmednagar	Gandhi, Shri Dilip Kumar Mansukhlal	BJP
250	Akola	Dhotre, Shri Sajnay Shamrao	BJP
251	Amravati(SC)	Adsul, Shri Anandrao	SS
252	Aurangabad	Khair, Shri Chandrakant Bhaurao	SS
253	Baramati	Sule, Smt. Supriya Sadanand	NCP
254	Beed	Munde, Shri Gopinath Pandurang	BJP
255	Bhandara-Gondiya	Patel, Shri Praful Manoharbhair	NCP
256	Bhiwandi	Taware, Shri Suresh Kashinath	INC

257	Buldhana	Jadhav, Shri Prataprao Ganpatrao	SS
258	Chandrapur	Ahir, Shri Hansraj Gangaram	BJP
259	Dhule	Pratap Narayanrao, Shri Sonawane	BJP
260	Dindori(ST)	Chavan, Shri Harischandra Deoram	BJP
261	Gadchiroli-Chimur(ST)	Kowase, Shri Marotrao Sainuji	INC
262	Hatkanangle	Shetti, Shri Raju @ Devappa Anna	SWP
263	Hingoli	Wankhede, Shri Subhash Bapurao	SS
264	Jalgaon	Patil, Shri A. T. (Nana)	BJP
265	Jalna	Danve, Shri Raosaheb Patil	BJP
266	Kalyan	Paranjpe, Shri Anand Prakash	SS
267	Kolhapur	Mandlik, Shri Sadashivrao Dadoba	Ind.
268	Latur(SC)	Awale, Shri Jayawant Gangaram	INC
269	Madha	Pawar, Shri Sharad Chandra Govindrao	NCP
270	Maval	Babar, Shri Gajanan Dharmshi	SS
271	Mumbai-North	Nirupam, Shri Sanjay	INC
272	Mumbai-North-Central	Dutt, Smt. Priya Sunil	INC
273	Mumbai-North-East	Patil, Shri Sanjay Dina	NCP
274	Mumbai-North-West	Kamat, Shri Gurudas	INC
275	Mumbai-South	Deora, Shri Milind Murli	INC
276	Mumbai-South-Central	Gaikwad, Shri Eknath Mahadeo	INC
277	Nagpur	Muttemwar, Shri Vilas Baburao	INC
278	Nanded	Patil, Shri Bhaskarrao Bapurao	INC
279	Nandurbar (ST)	Gavit, Shri Manikrao Hodlya	INC
280	Nashik	Bhujbal, Shri Sameer Magan	NCP
281	Osmanabad	Patil, Dr. Padmasinha Bajirao	NCP
282	Palghar (ST)	Jadhav, Shri Baliram Sukur	BVA
283	Parbhani	Dudhgaonkar, Shri Ganeshrao Nagoran	SS
284	Pune	Kalmadi, Shri Suresh	INC
285	Raigad	Geete, Shri Anant Gangaram	SS
286	Ramtek(SC)	Wasnik, Shri Mukul Balkrishna	INC
287	Ratnagiri-Sindhudurg	Rane, Dr. Nilesh Narayan	INC
288	Raver	Jawale, Shri Haribhau Madhav	BJP
289	Sangli	Patil, Shri Pratik Prakashbapu	INC
290	Satara	Bhonsle, Shri Udayanraje Pratapsingh	NCP
291	Shridi(SC)	Wakchaure, Shri Bhusaheb	SS
292	Shirur	Adhalrao Patil, Shri Shivaji	SS
293	Solapur(SC)	Shinde, Shri Sushil Kumar Sambhajirao	INC
294	Thane	Naik, Dr. Sanjeev Ganesh	NCP
295	Wardha	Meghe, Shri Datta Raghobaji	INC
296	Yavatmal-Washim	Patil, Smt. Bhavana Gawali	SS

MANIPUR (2)

297	Inner Manipur	Meinya, Dr. Thokchom	INC
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298	Outer Manipur	Baite, Shri Thangso	INC
MEGHALAYA (2)			
299	Shillong (ST)	Pala, Shri Vicent H	INC
300	Tura (ST)	Sangma, Kum. Agatha K.	NCP
MIZORAM (1)			
301	Mizoram (ST)	Ruala, Shri C.L.	INC
NAGALAND (1)			
302	Nagaland	Chang, Shri Chongshen Mongkosungkum	NPF
ORISSA (21)			
303	Aska	Pradhan, Shri Nityananda	BJD
304	Balasore	Jena, Shri Srikant Kumar	INC
305	Bargarh	Bhoi, Shri Sanjay	INC
306	Berhampur	Mohapatra, Shri Sidhant	BJD
307	Bhadrak(SC)	Sethi, Shri Arjun Charan	BJD
308	Bhubaneswar	Patasani, Dr. (Prof.) Prasanna Kumar	BJD
309	Bolangir	Singh Deo, Shri Kalikesh Narayan	BJD
310	Cuttack	Mahtab, Shri Bhartruhari	BJD
311	Dhenkanal	Satpathy, Shri Tathagata	BJD
312	Jagatsinghpur(SC)	Tarai, Shri Bibhu Prasad	CPI
313	Jajpur(SC)	Jena, Shri Mohan	BJD
314	Kalahandi	Das, Shri Bhakta Charan	INC
315	Kandhamal	Ray, Shri Rudra Madhab	BJD
316	Kendrapara	Panda, Shri Bajjayant "Jay"	BJD
317	Keonjhar(ST)	Laguri, Shri Yashbant Narayan Singh	BJD
318	Koraput(ST)	Pangi, Shri Jayaram	BJD
319	Mayurbhanj(ST)	Tudu, Shri Laxman	BJD
320	Nabarangpur(ST)	Majhi, Shri Pradeep	INC
321	Puri	Misra, Shri Pinaki	BJD
322	Sambalpur	Pradhan, Shri Amarnath	INC
323	Sundargarh (ST)	Biswal, Shri Hemanand	INC
PUNJAB (13)			
324	Amritsar	Siddhu, Shri Navjot Singh	BJP
325	Anandpur Sahib	Singh, Shri Ravneet	INC
326	Bathinda	Badal, Smt. Harsimrat Kaur	SAD
327	Faridkot(SC)	Gulshan, Smt. Paramjit Kaur	SAD
328	Fatehgarh Sahib(SC)	Libra, Shri Sukhdev Singh	INC
329	Ferozpur	Ghubaya, Shri Sher Singh	SAD
330	Gurdaspur	Bajwa, Sardar Partap Singh	INC
331	Hoshiarpur(SC)	Chowdhary, Smt. Santosh	INC

332	Jalandhar(SC)	Kaypee, Shri Mohinder Singh	INC
333	Khadoor Sahib	Ajnala, Dr. Rattan Singh	SAD
334	Ludhiana	Tewari, Shri Manish	INC
335	Patiala	Kaur, Smt. Preneet	INC
336	Sangrur	Singla, Shri Vijay Inder	INC

RAJASTHAN (25)

337	Ajmer	Pilot, Shri Sachin	INC
338	Alwar	Singh, Shri Jitendra	INC
339	Banswara(ST)	Bhagora, Shri Tarachand	INC
340	Barmer	Choudhary, Shri Harish	INC
341	Bharatpur(SC)	Singh, Shri Ratan	INC
342	Bhilwara	Joshi, Dr. C.P.	INC
343	Bikaner (SC)	Meghwal, Shri Arjun Ram	BJP
344	Chittorgarh	Vyas, Dr. (Kum.) Girija	INC
345	Churu	Kaswan, Shri Ram Singh	BJP
346	Dausa(ST)	Meena, Dr. Kirodilal	Ind.
347	Ganganagar(SC)	Meghwal, Shri Bharat Ram	INC
348	Jaipur	Joshi, Dr. Mahesh	INC
349	Jaipur Rural	Kataria, Shri Lalchand	INC
350	Jalore	Patel, Shri Devji Mansingram	BJP
351	Jhalawar-Baran	Singh, Shri Dushyant	BJP
352	Jhunjhunu	Ola, Shri Sis Ram	INC
353	Jodhpur	Katoch, Smt. Chandresh Kumari	INC
354	Karauli-Dholpur(SC)	Bairwa, Shri Khiladi Lal	INC
355	Kota	Singh, Shri Ijyaraj	INC
356	Nagaur	Mirdha, Dr. (Smt.) Jyoti	INC
357	Pali	Jakhar, Shri Badri Ram	INC
358	Rajsamand	Shekhawat, Shri Gopal Singh	INC
359	Sikar	Khandela, Shri Mahadeo Singh	INC
360	Tonk-Sawai Madhopur	Meena, Shri Namoo Narain	INC
361	Udaipur (ST)	Meena, Shri Raghuvir Singh	INC

SIKKIM (1)

362	Sikkim	Rai, Shri Prem Das	SDF
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TAMILNADU (39)

363	Arokkonam	Jagathrakshakan, Shri S	DMK
364	Arani	Krishnaswamy, Shri M	INC
365	Chennai Central	Maran, Thiru Dayanidhi	DMK
366	Chennai North	Elangovan, Shri T.K.S.	DMK
367	Chennai South	Rajendran, Shri C.	AIADMK

368	Chidambaram(SC)	Thol, Shri Thirumaa Valavan	VCK
369	Coimbatore	Natarajan, Shri P.R.	CPI(M)
370	Cuddalore	Alagiri, Shri Sambandam Keerapalayam	INC
371	Dharmapuri	Thamaraiselvan, Shri R.	DMK
372	Dindigul	Chitthan, Shri N.S.V.	INC
373	Erode	Ganeshamurthi, Shri A.	MDMK
374	Kallakurichi	Adhi Sankar, Shri	DMK
375	Kancheepuram(SC)	Perumal, Shri Viswanathan	INC
376	Kanyakumari	Helen, Smt. Davidson J.	DMK
377	Karur	Thambidurai, Dr. Munisamy	AIADMK
378	Krisnagiri	Sugavanam, Shri E.G.	DMK
379	Mudurai	Alagiri, Shri M.K.	DMK
380	Mayiladuthurai	Manian, Shri O.S.	AIADMK
381	Nagapattinam(SC)	Vijayan, Shri A.K.S.	DMK
382	Namakkal	Gandhiselvan, Shri S.	DMK
383	Nilgiris(SC)	Raja, Shri Andimuthu	DMK
384	Perambalur	Napoleon, Shri D.	DMK
385	Pollachi	Sugumar, Shri K.	AIADMK
386	Ramanathapuram	Shivakumar, Shri K. J.K. Ritheesh	DMK
387	Salem	Semmalai, Shri S.	AIADMK
388	Sivaganga	Chidambaram, Shri Palaniappan	INC
389	Sriperumbudur	Baalu, Thiru Thalikkottai Rajuthevar	DMK
390	Tenkasi(SC)	Lingam, Shri P.	CPI
391	Thanjavur	Palanimanickam, Shri S.S.	DMK
392	Theni	Aaroon Rasheed, Shri J.M.	INC
393	Thoothukkudi	Jeyadurai, Shri S.R.	DMK
394	Tiruchirappalli	Kumar, Shri P.	AIADMK
395	Tirunelveli	Ramasubbu, Shri S.S.	INC
396	Tirupur	Sivasami, Shri C.	AIADMK
397	Tiruvallur(SC)	Venugopal, Dr. Ponnusamy	AIADMK
398	Tiruvannamalai	Venugopal, Thiru Danapal	DMK
399	Vellore	Abdul Rahman, Shri	DMK
400	Viluppuram (SC)	Anandan, Shri K. Murugesan	AIADMK
401	Virudhunagar	Tagore, Shri Manicka	INC

TRIPURA (2)

402	Tripura East(ST)	Riyan, Shri Baju Ban	CPI(M)
403	Tripura West	Das, Shri Khagen	CPI(M)

UTAR PRADESH (80)

404	Agra(SC)	Ram Shankar, Prof. (Dr.)	BJP
405	Akbarpur	Pal, Shri Raja Ram	INC

406	Aligarh	Chauhan, Smt. Raj Kumari	BSP
407	Allahabad	Singh, Kunwar Rewati Raman	SP
408	Ambedkar Nagar	Pandey, Shri Rakesh	BSP
409	Amethi	Gandhi, Shri Rahul	INC
410	Amroha	Nagpal, Shri Devendra	RLD
411	Aonla	Gandhi, Smt. Maneka	BJP
412	Azamgarh	Yadav, Shri Ramakant	BJP
413	Badaun	Yadav, Shri Dharmendra	SP
414	Baghpat	Singh, ShriAjit	RLD
415	Bahraich(SC)	Kishor, Shri Kamal	INC
416	Ballia	Shekhar, Shri Neeraj	SP
417	Banda	Patel, Shri R.K. Singh	SP
418	Bansgaon(SC)	Paswan, Shri Kamlesh	BJP
419	Barabanki(SC)	Punia, Shri P.L.	INC
420	Bareilly	Aron, Shri Praveen Singh	INC
421	Basti	Chaudhary, Shri Arvind Kumar	BSP
422	Bhadohi	Pandey, Shri Gorakh Nath	BSP
423	Bijnor	Chauhan, Shri Sanjay Singh	RLD
424	Bulandshahr(SC)	Balmiki, Shri Kamlesh	SP
425	Chandauli	Ramkishun, Shri	SP
426	Deoria	Jaiswal, Shri Gorakh Prasad	BSP
427	Dhaurahra	Prasada, Shri Jatin	INC
428	Domariyaganj	Pal, Shri Jagdambika	INC
429	Etah	Singh, Shri Kalyan	Ind
430	Etawah(SC)	Katheria, Shri Premdas	SP
431	Faizabad	Khatri, Dr. Nirmal	INC
432	Farrukhabad	Khurshid, Shri Salman	INC
433	Fatehpur	Sachan, Shri Rakesh	SP
434	Fatehpur Sikri	Upadhyay, Smt. Seema	BSP
435	Firozabad	Babbar, Shriraj	INC
436	Gautam Buddha Nagar	Nagar, Shri Surendra Singh	BSP
437	Ghaziabad	Singh, Shri Rajnath	BJP
438	Ghazipur	Singh, Shri Radhe Mohan	SP
439	Ghosi	Chauhan, Shri Dara Singh	BSP
440	Gonda	Verma, Shri Beni Prasad	INC
441	Gorakhpur	Adityanath, Shri Yogi	BJP
442	Hamirpur	Singh, Shri Vijay Bahadur	BSP
443	Hardoi(SC)	Verma, Smt. Usha	SP
444	Hathras(SC)	Baghel, Smt. Sarika Devendra Singh	RLD
445	Jalaun(SC)	Anuragi, Shri Ghanshyam	SP
446	Jaunpur	Singh, Shri Dhananjay	BSP
447	Jhansi	Jain Aditya, Shri Pradeep Kumar	INC
448	Kairana	Hasan, Begum Tabassum	BSP

449	Kaiserganj	Singh, Shri Brijbhushan Sharan	SP
450	Kannauj	Yadav, Shri Akhilesh	SP
451	Kanpur	Jaiswal, Shri Sriprakash	INC
452	Kaushambi (SC)	Kumar, Shri Shailendra	SP
453	Kheri	Naqvi, Shri Zafar Ali	INC
454	Kushi Nagar	Singh, Shri Ratanjit Pratap Narain	INC
455	Lalganj (SC)	Baliram, Dr.	BSP
456	Lucknow	Tandon, Shri Lal Ji	BJP
457	Machhlishahr (SC)	Saroj, Shri Tufani	SP
458	Maharajganj	Vardhan, Shri Harsh	INC
459	Mainpuri	Yadav, Shri Mulayam Singh	SP
460	Mathura	Chaudhary, Shri Jayant	RLD
461	Meerut	Agrawal, Shri Rajendra	BJP
462	Mirzapur	Patel, Shri Bal Kumar	SP
463	Misrikh(SC)	Rawat, Shri Ashok Kumar	BSP
464	Mohanlalganj (SC)	Saroj, Smt. Sushila	SP
465	Moradabad	Azharuddin, Shri Mohammed	INC
466	Muzaffarnagar	Rana, Shri Kadir	BSP
467	Nagina(SC)	Singh, Shri Yashvir	SP
468	Phulpur	Karwariya, Shri Kapil Muni	BSP
469	Pilibhit	Gandhi, Shri Feroze Varun	BJP
470	Pratapgarh	Singh, Rajkumari Ratna	INC
471	Rae Bareli	Gandhi, Smt. Sonia	INC
472	Rampur	Nahata, Smt. P. Jaya Prada	SP
473	Robertsganj(SC)	Lal, Shri Pakauri	SP
474	Saharanpur	Rana, Shri Jagdish Singh	BSP
475	Salempur	Rajbhar, Shri Ramashankar	BSP
476	Sambhal	Barq, Shri Shafiqur Rahman	BSP
477	Sant Kabir Nagar	Tiwari, Shri Bhismshankar, alias Kushal	BSP
478	Shahjahanpur(SC)	Mithlesh Kumar, Shri	SP
479	Shrawasti	Pandey, Dr. Vinay Kumar "Vinnu"	INC
480	Sitapur	Jahan, Smt. Kaiser	BSP
481	Sultanpur	Sinh, Dr. Sanjay	INC
482	Unnao	Tandon, Smt. Annu	INC
483	Varanasi	Joshi, Dr. Murli Manohar	BJP

UTTARAKHAND (5)

484	Almora (SC)	Tamta, Shri Pradeep	INC
485	Garhwal	Maharaj, Shri Satpal	INC
486	Hardwar	Rawat, Shri Harish	INC
487	Nainital- Udhamsingh Nagar	Baba, Shri K.C. Singh	INC
488	Tehri Garhwal	Bahuguna, Shri Vijay	INC

WEST BENGAL (42)

489	Alipurduars(ST)	Tirkey, Shri Manohar	RSP
490	Arambagh(SC)	Malik, Shri Sakti Mohan	CPI(M)
491	Asansol	Chowdhury, Shri Bansa Gopal	CPI(M)
492	Baharampur	Chowdhury, Shri Adhir Ranjan	INC
493	Balurghat	Majumdar, Shri Prasanta Kumar	RSP
494	Bankura	Acharia, Shri Basudeb	CPI(M)
495	Barasat	Dastidar, Dr. (Smt.) Kakoli Ghosh	AITC
496	Bardhaman Purba (SC)	Saha, Dr. Anup Kumar	CPI(M)
497	Bardhaman Durgapur	Haque, Prof. Saidu	CPI(M)
498	Barrackpur	Trivedi, Shri Dinesh	AITC
499	Basirhat	Islam, Shri Nurul	AITC
500	Birbhum	Roy, Smt. Satabdi	AITC
501	Bishnupur(SC)	Bauri, Smt. Susmita	CPI(M)
502	Bolpur(SC)	Dome, Dr. Ram Chandra	CPI(M)
503	Bongaon(SC)	Naskar, Shri Gobinda Chandra	AITC
504	Cooch Behar (SC)	Roy, Shri Nripendra Nath	AIFB
505	Darjeeling	Singh, Shri Jaswant	BJP
506	Diamond Harbour	Mitra, Shri Somendra Nath	AITC
507	Dum Dum	Roy, Prof. Saugata	AITC
508	Ghatal	Dasgupta, Shri Gurudas	CPI
509	Hooghly	De(Nag), Dr. (Smt.) Ratna	AITC
510	Howrah	Banerjee, Shri Ambika	AITC
511	Jadavpur	Suman, Shri Kabir	AITC
512	Jalpaiguri(SC)	Roy, Shri Mahendra Kumar	CPI(M)
513	Jangipur	Mukherjee, Shri Pranab	INC
514	Jaynagar(SC)	Mandal, Dr. Tarun	Ind.
515	Jhargram(ST)	Baske, Dr. Pulin Bihari	CPI(M)
516	Kanthi	Adhikari, Shri Sisir Kumar	AITC
517	Kolkata Dakshin	Banerjee, Kum. Mamata	AITC
518	Kolkata Uttar	Bandyopadhyay, Shri Sudip	AITC
519	Krishnanagar	Paul, Shri Tapas	AITC
520	Malda Dakshin	Choudhury, Shri Abu Hasem Khan	INC
521	Malda Uttar	Noor, Smt. Mausam	INC
522	Mathurapur(SC)	Jatua, Shri Choudhury Mohan	AITC
523	Medinipur	Panda, Shri Prabodh	CPI
524	Murshidabad	Hossain, Shri Abdul Mannan	INC
525	Purulia	Mahato, Shri Narahari	AIFB
526	Raiganj	Dasmunsi, Smt. Deepa	INC
527	Ranaghat(SC)	Haldar, Dr. Sucharu Ranjan	AITC
528	Serampore	Banerjee, Shri Kalyan	AITC
529	Tamluk	Adhikari, Shri Suwendu	AITC

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530 Uluberia Ahmed, Shri Sultan AITC

ANDAMAN & NICOBAR ISLANDS (1)

531 Andaman & Nicobar Islands Ray, Shri Bishnu Pada BJP

CHANDIGARH (1)

532 Chandigarh Bansal, Shri Pawan Kumar INC

DADRA & NAGAR HAVELI (1)

533 Dadra & Nagar Haveli (ST) Patel, Shri Natubhai Gomanbhai BJP

DAMAN & DIU (1)

534 Daman and Diu Patel, Shri Lalubhai Babubhai BJP

NATIONAL CAPITAL TERRITORY OF DELHI (7)

535 Chandni Chowk Sibal, Shri Kapil INC

536 East Delhi Dikshit, Shri Sandeep INC

537 New Delhi Maken, Shri Ajay INC

538 North West Delhi Agarwal, Shri Jai Prakash INC

539 North West Delhi(SC) Tirath, Smt. Krishna INC

540 South Delhi Kumar, Shri Ramesh INC

541 West Delhi Mishra, Shri Mahabal INC

LAKSHADWEEP (1)

542 Lakshadweep (ST) Sayed, Shri Hamdullah INC

PUDUCHERRY (1)

543 Puducherry Narayanasamy, Shri V. INC

NOMINATED MEMBERS (2)

544 Dias, Dr. Charles Kerala INC

545 Mcleod, Smt. Ingrid Chattisgarh INC

Abbreviations used for Parties : All India Forward Bloc - AIFB; All India Majlis-e-Ittehadul Muslimeen - AIMEIM; All India Trinamool Congress -AITC; Asom Gana Parishad - AGP; Bahujan Samaj Party - BSP; Bharatiya Janata Party- BJP; Bharatiya Navshakti Party - BNP; Biju Janata Dal - BJD; Communist Party of India - CPI; Communist Party of India (Marxist) - CPI(M); Dravida Munnetra Kazhagam - DMK; Indian National Congress - INC; Jammu & Kashmir National Conference - J&KNC; Janata Dal (Secular) - JD (S); Janata Dal (United) - JD (U); Jharkhand Mukti Morcha - JMM; Kerala Congress - KC; Lok Jan Shakti Party - LJSP; Marumalarchi Dravida Munnetra Kazhagam - MDMK; Mizo National Front - MNF; Muslim League - ML; Nagaland Peoples Front - NPF; Nationalist Congress Party - NCP; Pattali

Makkal Katchi - PMK; Jammu and Kashmir Peoples Democratic Party - J&K PDP; Rashtriya JanataDal - RJD; Rashtriya Lok Dal - RLD; Republican Party of India (A) - RPI (A); Revolutionary Socialist Party - RSP; Samajwadi Janata Party (Rashtriya) - SJP (R); Samajwadi Party - SP; Shiromani Akali Dal - SAD; Shiv Sena - SS; Sikkim Democratic Front - SDF; Swabhimani Raksha Party-SWP; Telangana Rashtra Samithi - TRS; Telugu Desam Party - TDP; Viduthalai Chiruthaigal Katchi - VCK Independent-IND.

NB : The 545 Seats of Lok Sabha Members include one vacant seat of Banka Constituency of Bihar and the seat of MP Smt. Meira Kumar who has become the speaker of the Lok Sabha and two nominated members of Anglo-Indian Community. It means after excluding the vacant seat and the seat of the speaker, there are at present, 543 Members of the House.

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