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GOVERNMENT OF GUJARAT

SEVENTH FIVE YEAR PLAN

1985-90

NIEPA DC



D04058

GENERAL ADMINISTRATION DEPARTMENT

(PLANNING)

JANUARY—1986



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Sub. National Systems Unit,
National Institute of Educational
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DCC. No. 4058.....
Date. 17/11/82.....

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P R E F A C E

This volume presents the State's development programmes for the Seventh Five Year Plan envisaging a total outlay of Rs. 6000 crores. This is considerably larger than the Sixth Plan outlay of Rs. 3760 crores. The basic objectives of the Seventh Plan relate to food, work and productivity. In tune with the national objectives, the Plan aims at removal of poverty, increasing food production, raising levels of employment and improving efficiency and productivity. The strategy in the Seventh Plan is to build on the strength of the past achievements by reinforcing the growth impulses of the economy to secure speedier realisation of social justice.

In Gujarat the programme of decentralised planning through the District Planning Boards initiated during the Sixth Five Year Plan has received wide acclaim and popular support at the grass-root level. The District Planning Boards have addressed themselves to the task of identifying the local needs and formulating schemes therefor. In the Seventh Plan, this programme will be further consolidated.

Besides, a new feature of the Seventh Plan is the outlay of Rs. 550 crores envisaged for the Mid-Day Meals Programme for children in primary schools as part of human resources development programme. The provision of wholesome nutritious meal has come as a boon to underfed and illnourished children of poor parents who are thus motivated to send their children to schools and to allow them to continue their studies. The programme also envisages detailed health check of the beneficiaries to ensure that nutritional deficiencies are corrected.

In the ultimate analysis the success of the Plan depends on the zeal and enthusiasm in the implementation of the projects and programmes and the degree of people's participation. It is hoped that this Plan will get the fullest cooperation and support from all the sections of the people in the State.

Sachivalaya, Gandhinagar
20th January, 1986.

R. V. CHANDRAMOULI,
Chief Secretary to Government.

SEVENTH FIVE YEAR PLAN,1985-90

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“Planning is a continuous movement towards desired goals and because of this, all major decisions have to be made by agencies informed of these goals and the social purpose behind them. Even in considering a five-year period, forward and long-term planning has always to be kept in view. Indeed, perspective planning is of the essence of the planning process. As this process develops, there is a certain rhythm of expansion in the development of the people, and a sense of enterprise and achievement comes to them. They are conscious of a purpose in life and have a feeling of being participants in the making of history. Ultimately it is the development of the human being and the human personality that counts. Although planning involves material investment, even more important is the investment in man”.

—JAWAHARLAL NEHRU

PART I
PLAN NUMBER

“Planning is the only rational way of husbanding our resources, of organising ourselves for the hard and long grind for material and cultural fulfilment. Time and again, our Plans have been buffeted by unforeseen winds; several invasions, repeated droughts and two periods of sharp escalation in the international prices of oil and industrial machinery. In spite of it all, the last 30 years have shown that Planning “works”.

--SMT. INDIRA GANDHI

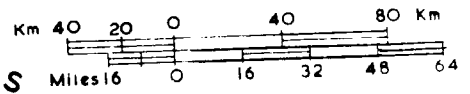
[Extract from the address of the Late Prime Minister, Shrimati Indira Gandhi at the Silver Jubilee Celebrations of the Institute of Economic Growth, New Delhi-16th November, 1983.]

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GUJARAT

ADMINISTRATIVE DIVISIONS

BOUNDARIES:
 INTERNATIONAL ———
 STATE / UNION TERRITORY - - - -
 DISTRICT
 TALUKA



- ★ CAPITAL
- DISTRICT HEAD QUARTERS
- TALUKA HEAD QUARTERS

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BASED UPON SURVEY OF INDIA MAP WITH THE PERMISSION OF THE
 SURVEY GENERAL OF INDIA.
 TERRITORIAL WATERS OF INDIA EXTEND INTO THE SEA TO A DISTANCE OF TWELVE NAUTICAL MILES
 MEASURED FROM THE APPROPRIATE BASE LINE.
 RESPONSIBILITY FOR THE CORRECTNESS OF INTERNAL DETAILS RESTS WITH THE PUBLISHER.

CHAPTER—I

AN OVERVIEW OF ECONOMIC DEVELOPMENT

Progress Under Plans

1.1. Gujarat has witnessed remarkable progress in the last twenty five years of development since it emerged as a separate State on 1st May, 1960. This chapter outlines the profile of development during this period.

1.2. The Third Five Year Plan (1961-66) was the first determined effort to initiate development in different regions of the State in a systematic way. The Plan performance from 1961-1985 measured in financial terms aggregates to Rs. 6712 crores as given below :

(Rs. in crores)

Plan Period	Outlay	Expenditure	Percentage performance
Third Plan	237	240	102
Annual Plans	202	211	104
Fourth Plan	455	545	120
Fifth Plan (Four Years)	887	1005	113
Annual Plans	727	831	114
Sixth Plan	3760	3880	103
Total	6268	6712	107

1.3. The bulk of this amount has been provided from the State Government's own budgetary resources. The record of the State in the matter of additional resource mobilisation has been uniformly good.

1.4. The State has made tremendous advances in several Sectors of Development during the last twenty five years. However, a large percentage of the State's population still lives below the poverty line. The poorest among them are the landless labourers, small and marginal farmers, rural artisans, the scheduled castes, scheduled tribes and the socially, educationally and economically backward classes. The State has adopted in the recent years the household as the basic unit and launched a household oriented programme for eradication of poverty. Each household below the poverty line would be assisted through an appropriate package of technology, services and transfer of assets. Removal of poverty through rural development calls for an integrated strategy towards increasing production and productivity in agriculture and allied sectors on one hand and, the development of assets and incomes of vulnerable sections of the population on the other hand. Measures have been identified to reduce the number of independently managed projects at the district and at the block levels and forge a multi-disciplinary apparatus at the local levels as will function effectively and efficiently.

Trends in State Income

1.5. In an economy where agriculture occupies a pivotal place, the movements in the aggregate income are dominated by the performance of agriculture, which, in turn, is highly dependent on nature. The natural factors not only affect income from agriculture, but also that originating from industries, which use outputs of agriculture as inputs and also the income originating from services such as trading, transport, banking, etc. In order to gauge the economic growth in proper perspectives, it becomes necessary to reduce to the extent possible the effects of the natural events.

1.6. The economy of the State has grown at the average annual rate of growth of 3.6 per cent during the period 1960-61 through 1980-81. It is pertinent to note that the State economy has grown rapidly since 1970-71. The average annual growth rate for the period 1960-61 through 1970-71 had been of the order of 3.3 per cent; the growth rate for the period 1970-71 through 1980-81 comes to about 4.6 percent which is significantly higher. This compares favourably with the average annual growth rate of 3.3% in seventies for the national economy. The details can be seen from the following table :—

Annual Rate of Growth of State Domestic Product by Sectors

Sector	Annual Growth Rate for the Period		
	1960-61 to 1980-81	1960-61 to 1970-71	1970-71 to 1980-81
1	2	3	4
Primary	2.8	2.9	3.0
Secondary	4.2	3.6	5.9
Tertiary	4.4	3.5	5.8
Total	3.6	3.3	4.6

1.7. Firm data for recent years are not yet available. However, available provisional data indicate that the economy has grown approximately at the rate of 4.8 per cent upto 1983-84 during the Sixth Five Year Plan. The State appears well on the way to achieve the targetted rate of growth of 5.0 per cent during the Sixth Plan period, 1980-85.

1.8. Apart from the overall increase in the rate of growth in recent years, there has been a clear indication of a structural shift towards the secondary and tertiary sector as reflected in sectoral composition of the Net State Domestic Product as the following table illustrates :

**Sectoral Composition of Net State Domestic Product at Constant (1970-71) Prices
1964-65 and 1983-84**

Sector	Percentage Share to total NSDP Five Year Average ending	
	1964-65	1983-84
Primary Sector	45.7	36.7
Secondary Sector	22.9	26.4
Tertiary Sector	31.4	36.9

1.9. There are noticeable structural changes in the State economy. The average share of primary sector has decreased from 45.7 per cent for the period of five years ending 1964-65 to 36.7 per cent for last five years ending 1983-84. For the same period the average share of secondary sector has increased from 22.9 per cent to 26.4 per cent and tertiary sector has increased from 31.4 per cent to 36.9 per cent.

1.10. The labour force engaged in agriculture has been declining. In 1961, about 68 per cent of the labour force was engaged in agriculture, this percentage has declined to about 60 per cent in 1981.

Demographic Features

1.11. The population of the State according to 1961 census was 206 lakhs which rose to 267 lakhs in 1971 and 341 lakhs in 1981. The trends in the growth of population are indicated in the following table :

Census Year	Total Population (in lakhs)	Percentage increase		Density (Population) per sq. kms.
		Decadal	over 1901	
1901	91	..	..	46
1911	98	7.8	7.8	50
1921	102	3.8	11.9	52
1931	115	12.9	26.3	59
1941	137	19.3	50.7	70
1951	163	18.7	78.8	83
1961	206	26.9	126.9	103
1971	267	29.4	193.5	136
1981	341	27.7	274.8	174

1.12. The decennial population growth of 27.7 per cent during 1971-81 of the State has been higher than the All India average of 25.0 per cent. However, there has been a definite downward trend in the growth of population as compared to the population growth during 1961-71.

1.13. The population of Gujarat has more than doubled in the last three decades, from 1.6 crores in 1951 to 3.4 crores in 1981. However, the average annual growth rate which was 2.6 per cent in the sixties, declined to 2.4 per cent in the seventies. Nevertheless, this rate of growth is higher than the National average of 2.21 and the average rate of growth of other industrialising States such as Maharashtra (2.18), Punjab (2.07) and Tamil Nadu (1.59).

1.14. The density of population in Gujarat is 174 persons per sq. km. as against 216 persons per sq. km. for India.

1.15. Of the total population, 24.38 lakhs are scheduled castes (7.2 per cent) and 48.49 lakhs are scheduled tribes (14.2 per cent).

1.16. The birth rate which was 45.7 per thousand population during 1951-60 has declined to 34.0 in 1983 whereas death rate has also gone down from 23.5 during 1951-60 to 11.5 in 1983. The estimates based on the Sample Registrations System are as under :

Year	Live Birth Rate	Death Rate
1951-60*	45.7	23.5
1970	41.2	18.1
1971	41.0	17.1
1972	40.4	15.9
1973	35.3	15.9
1974	38.4	13.0
1975	37.2	15.9
1976	36.8	15.6
1977	35.9	15.4
1978	35.8	12.7
1979	35.7	13.1
1980	35.0	13.0
1981	34.5	12.0
1982 (P)	34.3	11.7
1983 (P)	34.0	11.5

*The live birth rate and death rate for the period 1951-60 estimated by Census Actuaries.

1.17. The level of infant mortality in the State during 1975 was 154 infant deaths per 1000 live births. The level has, however, declined to 114 in 1983.

1.18. The expectation of life at birth for males and females in Gujarat State was 40.8 years and 39.2 years respectively in 1951-60. This has recorded an increase in the succeeding years and during 1981-85, the expectation of life for males and females is likely to reach to 55.8 years and 55.6 years respectively.

Age Structure

1.19. The relevant functional age groups for development planning are pre-school age group (0-4), school age group (5-14), working age group (15-59) and old age group.

1.20. According to 1981 census, the age structure of Gujarat is broad based representing more population in the young age-group. About 39 percent of the

GUJARAT

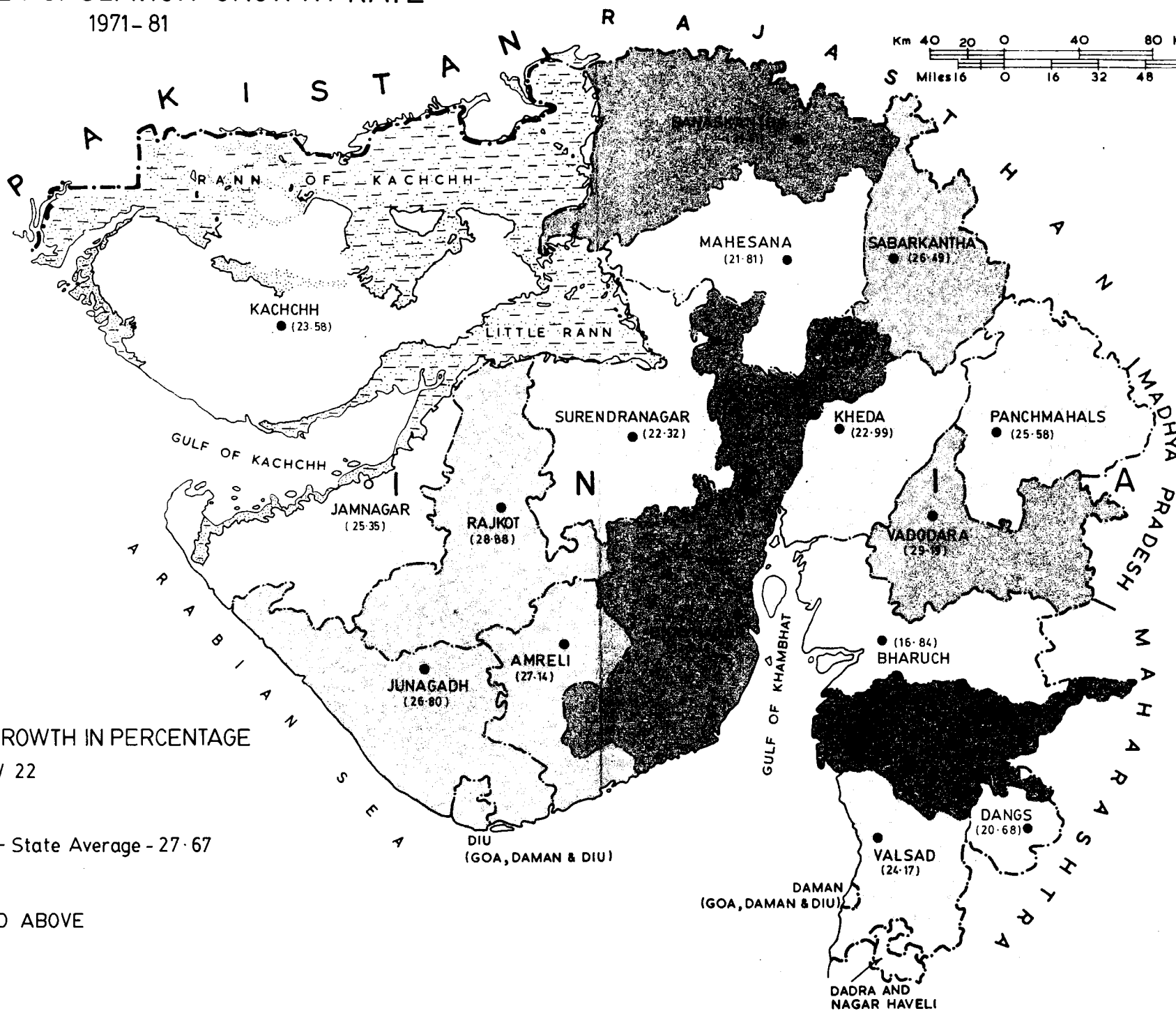
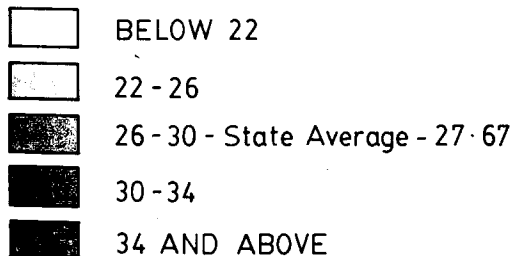
DECENNIAL POPULATION GROWTH RATE

1971-81

BOUNDARIES:
 INTERNATIONAL
 STATE / UNION TERRITORY
 DISTRICT

Km 40 20 0 40 80 Km
 Miles 16 0 16 32 48 64

POPULATION GROWTH IN PERCENTAGE



population have been reported in the age group 0-15 years, 55 percent in the working age-group 15-59 years and 6 percent in the age-group 60 years and above.

Labour Force

1.21. An increase in the population goes hand in hand with the increase in labour force, particularly when the birth rate is falling which leads to a decline in the proportion in the age group 0--15 and an increase in the age group 15--59. Conventionally the labour force consists of persons in the age group 15-59. In 1961 and 1971 the proportion of the working age group in Gujarat was about 52 per cent and works out to 55 per cent in 1981.

Urbanisation

1.22. Gujarat has a higher degree of urbanisation. The trend is illustrated in the following table : ,

Census Year	Percentage to total population.		
	Rural	Urban	Total
1901	77.67	22.33	100.00
1911	80.75	19.25	100.00
1921	79.85	20.15	100.00
1931	79.50	20.50	100.00
1941	76.21	23.79	100.00
1951	72.77	27.23	100.00
1961	74.23	25.77	100.00
1971	71.92	28.08	100.00
1981	68.90	31.10	100.00

1.23. According to 1981 census, 31.10 per cent of the population of the State (106 lakhs) is located in 255 urban areas. The urban population in the State has been growing at the rate of 3.5% per annum during 1971-81 as compared to 2.1% for rural areas. Gujarat is the third amongst most urbanised States in the Country.

1.24. The process of urbanisation has been specially rapid in the class—I cities. Nearly 80% of the increase in the urban population is in class—I cities alone whose population increased from 33.08 lakhs to 61.1 lakhs during 1971-81. Proliferation of slums, steep increase in land price, strain on civic amenities such as provision of drinking water, sanitation and roads are some of the consequences of rapid urbanisation.

Sectoral Growth-Agriculture

1.25. There has been impressive increase in the agricultural production in the State. The following table gives the average annual production level since 1951-56:

Period	Foodgrains (in lakh tonnes)	Oilseeds (in lakh tonnes)	Cotton (in lakh bales of 170 Kgs. each)
1951-56	18.75	4.40	8.83
1956-61	20.28	11.07	11.17
1961-66	25.79	13.58	15.23
1966-69	28.11	11.31	15.48
1969-74	37.19	13.87	20.18
1974-78	35.72	18.64	17.93
1978-80	44.45	21.04	19.70
1980-84	50.46	22.27	17.06

1.26. The compound annual rate of growth for the period 1960-61 to 1983-84 for the production of foodgrains, oilseeds and cotton has been 3.4, 3.1 and 0.9 percent respectively.

1.27. Higher production has largely been attributed to increase in productivity. The average yields of different crops during Plan periods are reflected in the table below :

(Kg. per hectare)

Period	Total Food-grains	Total Oil-Seeds	Cotton	Tobacco
1951-56	336	362	109	683
1956-61	407	586	108	691
1961-66	538	581	147	965
1966-69	542	524	156	1026
1969-74	714	675	174	1284
1974-78	753	844	164	1574
1978-80	906	842	189	1702
1980-84	1033	847	194	1690

1.28. Increases in the yield of major crops have been due to a number of factors such as improvement in agricultural practices, use of fertilisers, pesticides, better seeds as well as expansion of irrigation facilities, etc.

Irrigation

1.29. Very little had been done to exploit the irrigation potential of the State prior to 1950-51. The minor irrigation potential which was only 3.97 lakh hectares in 1950-51 had increased to 7.24 lakh hectares in 1960-61. This is likely to be around 19.80 lakh hectares in 1984-85. In the case of major and medium irrigation potential of 2.48 lakh hectares was created by 1960-61 which has now risen to 10.81 lakh hectares in 1984-85.

1.30. The progress achieved since 1950-51 till 1984-85 is summarised in the following table :

(lakh hectares)

	1950-51		1960-61		1980-81		1984-85	
	Poten- tial	Utilisa- tion	Poten- tial	Utilisa- tion	Poten- tial	Utilisa- tion	Poten- tial	Utilisa- tion
Major and Medium Irrigation	..	..	2.48	0.66	8.85	5.82	10.81	7.15
Minor Irrigation	3.97	3.97	7.24	6.79	17.89	14.90	19.80	16.41

1.31. The following steps have been taken to increase the utilisation of irrigation potential :

- Introduction of Rotational Water Delivery system (WARABANDHI)
- Introduction of water Co-operatives and Selling of Water on volumetric basis.
- Sanctioning water applications inspite of arrears of water dues by relaxing canal rules from time to time.
- On farm development activities by Command Area Development Authorities.
- Conversion of large tracts of grass land under Kakrapar and Daman-Ganga projects into irrigated area.
- Modernisation of canal systems.
- High priority to completion of on-going projects.

Power

1.32. In 1961 electricity was available in a few pockets of the State mostly in urban and semi-urban areas. Even by 1960-61, the generating capacity in the State was only of the order of 315 MW which has since increased to 907 MW in 1970-71, 2384 MW in 1979-80 and 3383 MW in 1984-85. The number of villages electrified which was 823 in 1960-61 has increased to 3566 in 1970-71, 10867 in 1979-80 and 16135 in 1984-85. The following table shows the level reached at the end of 1984-85 :

Year	Installed capacity (MW)	Villages electrified (No.)
1960-61	315	823
1970-71	907	3566
1979-80	2384	10867
1984-85	3383	16135

1.33. GEB has achieved certain "performance highs" as detailed below :

—Gujarat topped the States in Plant Load Factor attained by thermal sets in 1983-84 (April-1983 to February, 1984).

State	Plant Load Factor
Gujarat	57.4
Madhya Pradesh	53.8
Tamil Nadu	50.1
Maharashtra	52.4
Punjab	56.2
Andhra Pradesh	52.9

—Gandhinagar Thermal Power Station unit No. 4 (120 MW) attained highest plant load factor of 73.7 % in 1982-83 among all sets of its class.

—Gandhinagar Thermal Power Station has earned a prize of Rs. 3 lakhs for achieving generation of 4200 units per KW installed capacity in the period April, 1983-December, 1983.

—Dhuvaran Thermal Power Station generated 3523 million units during 1982-83 which was the highest since its commissioning.

—In the year 1982-83, the plant load factor viz. 59.6 achieved is the highest in India.

Industry

1.34. Till 1960, the industrial economy of Gujarat rested primarily on the textile industry and textile ancillaries. With the discovery of oil and gas, the setting up of refinery, fertilizer factories and petrochemical complex, the economic horizon has widened considerably the scope for a wide spectrum of industries in the State. Alongwith this salt production and mineral exploration received added impetus.

1.35. On 31st December, 1960, there were 3647 working factories providing employment to 3.30 lakh persons. The number of these factories and the number

Of persons employed therein rose to 5544 and 4.38 lakhs respectively by the end of 1970, 6939 factories and 5.01 lakh employees by the end of 1973, to 9836 factories and 5.89 lakh employees by the end of 1978, and to 14694 factories and 7.16 lakh employees at the end of 1984. The productive capital in the registered factories sector in 1961 was Rs. 245.79 crores and goods worth of Rs. 420.46 crores were produced. The corresponding figures for 1970-71 were Rs. 748.59 crores and Rs. 1335.50 crores; for 1976-77 the corresponding figures were Rs. 1970 crores and Rs. 3531.44 crores and for 1982-83 the corresponding figures were Rs. 5394.10 crores and Rs. 10786.43 crores. The net value added was Rs. 121.33 crores at the end of 1961. This rose to Rs. 286.38 crores at the end of 1970-71, to Rs. 687.47 crores at the end of 1976-77 and to Rs. 1737.40 crores at the end of 1982-83.

1.36 Correspondingly, there was also momentum in the registration of small scale industry units. The total number of small scale units registered with Industries Department in 1961 was 2169. This increased to 18043 in 1971, to 43682 by the end of 1980 and to 66626 as on 31st March, 1984.

1.37. The industrial structure has been gradually diversifying with the development of industries in the field of chemicals, petrochemicals, pharmaceuticals, fertilizers, engineering, electronics, etc.

1.38. Gujarat now ranks second amongst the States in the Country in respect of value of output.

Industrial Policy

1.39. The industrial policy of the State is a broad based and to spread new industrial units to the rural and backward areas of the State, a number of incentives are provided to new units. A new incentive policy for promotion of industries in the backward districts of Bharuch, Surendranagar, Panchmahals, Amreli, Banaskantha, Bhavnagar, Junagadh, Kachchh, Mahesana and Sabarkantha is under implementation in the State since August, 1983. The State Government grants subsidy in addition to the Central Government's subsidy to new industries in these ten districts.

1.40. The State's policy has been to provide a comprehensive corporate network which offer expert services to give assistance to self-employed technicians and artisans in semi-urban and rural areas and to have a well designed attractive incentive policy to attract entrepreneurs to the State's backward areas. Important features of recent industrial development are :

- Narmada Valley Fertilizers Company Ltd. has started commercial production from July, 1982.
- Two more gas based fertilizer projects are being set up by KRIBHCO at Hajira near Surat which will start production from 1985.
- Setting up of pollution free industrial estate exclusively for electronics at Gandhinagar.
- S. S. I. Units increase from 43682 in 1980 to 66626 at the end of March, 1984.
- Value of mineral production which was Rs. 4911 lakhs in 1970 has increased to Rs. 50917 lakhs in 1983.
- In chemical industries, Gujarat is at the top in the Country.

—In production of Nitrogenous fertilizer, phosphetic fertilizer, soda ash and L. D. Polythene, Gujarat is No. 1 in the Country.

—In production of pesticides, Gujarat is No. 2 in the Country.

—In production of synthetic detergents, Gujarat is No. 5 in the Country.

Road Development

1.41. The surfaced and unsurfaced road length together was 13154 kms. in 1950-51, *i. e.* 7 kms. per hundred sq. kms. of area. This was 12 kms. per hundred sq. kms. in 1960-61, 20 kms. in 1973-74 and now 28 kms. in 1983-84.

1.42. The following table represents the increase in surfaced and un-surfaced road length from 1950-51.

year	Surfaced	Un-surfaced	Total
1950-51	6621	6533	13154
1960-61	11930	10699	22629
1973-74	21632	17349	38981
1980-81	33559	13867	47426
1981-82	37341	12515	49856
1982-83	41634	10987	52621
1984-85 (Likely)	48148	8833	56981

Road Transport

1.43. The passenger road-transport has been nationalised. Between 1960-61 and 1982-83 the passenger traffic on roads in Gujarat State has been increasing at the compound rate of 11.6 % as against 9 % in the Country as a whole.

1.44. The Gujarat State Road Transport Corporation provides direct services to 86.1 % of the towns and villages covering more than 96.8 % of the State's population.

Education

1.45. The educational facilities in the State at the primary, secondary and collegiate levels as also in the field of technical education have shown a rapid expansion over the last three decades of planned development. The number of primary schools which was 11189 at the beginning of First Plan has increased to 26500 by the end of 1983-84. The number of secondary schools registered an increase from 333 in 1950-51 to 3840 in 1983-84. The number of colleges increased from 101 in 1960-61 to 388 in 1983-84. Nine universities have also been set up in the State for imparting higher education. There were 4 degree colleges, and 11 technical institutions imparting technical education in 1960-61. These increased to 9 and 24 respectively by the end of the year 1984-85 and the intake capacity in engineering colleges in the State have also increased from 950 in 1960-61 to 2316 in 1984-85. The intake capacity in the diploma technical institutions has also risen from 1475 in 1960-61 to 5646 in 1984-85.

Health

1.46. The rural health services are provided through the net work of 310 primary and subsidiary health centres, 21 community health centres and 4869 sub-centres.

1.47. The number of allopathic doctors registered with the Gujarat Medical Council as on 31st December, 1971 was 7002 which increased to 14,652 in 1981. The doctor : population ratio which was 1.3800 in 1971 has improved to 1 : 2287 in 1983-84.

Decentralised District Planning

1.48. An innovative programme of Decentralised District Planning has been launched in Gujarat since 14th November, 1980, wherein formulation and implementation of schemes is being done through District Planning Boards from the outlays entirely put at their disposal. District Planning Boards have addressed themselves to the task of identifying the local needs and satisfying them through schemes financed from discretionary and incentive outlays placed at their disposal. The District Planning Boards can finance schemes on 100 % basis from discretionary outlays while the incentive outlay requires peoples' matching contribution at the rate of 25 % in 101 backward talukas and at the rate of 50 % for rest of the talukas and all urban areas. For the balanced development of different talukas, allocation in respect of discretionary and incentive outlays is determined on the basis of certain economic and social indicators.

1.49. District Planning Boards have been provided during the Sixth Plan, an amount of Rs. 171.44 crores. Against this, District Planning Boards have utilised Rs. 169.16 crores for various schemes/works mainly of the Minimum Needs Programme and missing links. Upto November, 1984, 075 primary school rooms have been built, 5190 school rooms have been repaired, 1241 link roads and 1682 new approach roads benefitting approximately 4140 villages have been constructed.

1.50. Towards More Innovative Measures

- A separate Narmada Development Department is set up for the accelerated implementation of the Sardar Sarovar Project.
- In order to impart greater attention to welfare programmes designed for the Urban Poor as well as to impart greater impetus to Urban Housing, a separate Department of Urban Development and Urban Housing has been set up.
- The Tribal Welfare Department has been separated from the Social Welfare Department in order to focus greater attention on the Welfare of Scheduled Castes and Scheduled Tribes. Under the Tribal Development Department, a Tribal Development Commissionerate has been set up to effectively monitor programmes aimed at the upliftment of Scheduled Tribes.
- A special Monitoring Cell for ensuring rapid implementation of the programmes for scheduled castes and scheduled tribes at State level has been set up.
- A high level Committee under the Chairmanship of the Chief Minister to review schemes under the Special Component Plan has been constituted.

- A separate post of Rural Labour Commissioner has been created to improve the conditions of rural labourers.
- A separate Commissionerate for Rural Development in Agriculture and Rural Development Department is set up to bring all the programmes relating to rural development under one roof.
- The Gujarat Women's Economic Development Corporation is set up to implement schemes for rehabilitation of women and schemes for productive activities.
- Separate Department of Ports and Fisheries has been created to streamline the administration and the development of Coastal Zone. Gujarat Maritime Board is also set up for better and integrated development of ports in the State.
- Separate Department of Forests and Environment is created to devote greater attention to problems relating to ecology and environment in the State.
- Separate Department of Science and Technology is also set up.
- The Gujarat State Civil Supplies Corporation has set up a chain of Departmental Stores to provide a variety of consumer items at reasonable prices.
- Mobile shops of the Gujarat State Civil Supplies Corporation are functioning in remote, rural and tribal areas to provide basic necessities at reasonable prices.
- Basic amenities available at the village level for each district have been computerised.

Lags and Constraints in Growth

1.51. Rapid increase in population is not the only constraint impeding the growth of the economy in real terms. There are other constraints as well.

1.52. The State lags behind many other States even in respect of some of the basic amenities. A large proportion of the area of the State is backward, with 58 out of 184 talukas being prone to drought. Drought Prone areas include 35 % of the area of the State and 24 % of the Population. Erratic and unevenly distributed rainfall have been causing recurrent droughts and floods, with shattering impact on agriculture, fodder and drinking water situation in the State.

1.53. Gujarat is also deficient in the matter of forest cover over land, only a little above 10 % of the area of the State is covered by forests as compared to 22 % for the rest of the Country. Around 50 % of the State forests are concentrated in the Southern districts of the State. The inadequacy of the forest cover continues to cause serious problems of soil erosion and silting of water reservoirs in the State.

1.54. Only 20 % of the culturable areas of the State is under irrigation, as compared to 26 % for the Country. Two thirds of the area under irrigation in the State is irrigated by surface wells, which are themselves dependent on rainfall. Canals irrigate only 18% of the total irrigated area. The ultimate irrigation potential in the State, even with the Narmada Project is not likely to exceed 52% of the culturable areas. The effective percentage is likely to be lower if the depletion of ground water resources at the present rate of drawals in deficient areas is taken into account.

1.55. Irrigated agriculture in the State faces many problems. Water logging has begun to assume importance in some of the irrigated areas. Silting up of reservoir with the resultant loss of effective capacity of reservoirs is an area of concern. Ground water extraction in several areas has been so heavy that the draft has far exceeded recharge and consequently, the water table has been going down steadily at several places. Along the coastal areas of Saurashtra and Kachchh this has caused ingress of salinity, now assuming serious dimensions.

1.56. In the matter of power generation Gujarat has to depend overwhelmingly on thermal power on account of limited hydro-electic potential. Being situated far away from the coal fields, Gujarat faces many uncertainties and additional cost of transportation in respect of power generation. The concentration of generation centres in Southern and Eastern parts of the State entails heavy line losses in carrying power over long distances to Saurashtra and Kachchh region.

1.57. In road development also, the State lags behind the rest of the country with only 24 kms. of road length per 100 sq. kms, as against the all India average of 36 kms. at the end of March, 1981. At the end of March, 1981, the State had a shortfall of 18% against the target set for the Twenty Years Road Plan when several other states have already fulfilled the target. At the end of March, 1985 nearly 6500 villages in the State were yet to be provided with all weather road connections.

1.58. Despite covering nearly 1000 villages every year through the programmes of drinking water supply, the difficulties have arisen on account of salinity ingress, changing water table occasioned by heavy drawals of ground water in certain areas, the impact of industrial pollution and as a consequence of recurrent natural calamities in the form of drought and floods. The problem of protected water supply in towns and the augmentation of supply to the larger urban complexes also pose problems of enormous magnitude.

1.59. With 31% of the total population of the State living in urban areas, Gujarat has a high rate of urbanisation. The State has 255 towns with the population of nearly 106 lakhs. This rapid rate of urbanisation has resulted in serious pressure on urban land resources and has strained civic amenities such as water supply and drainage, transportation, social and recreational services.

Backward Areas

1.60. Backwardness of any region can be gauged with reference to the resource endowment and the level of development of that region. It would, therefore, be useful to identify geographical regions in the State characterised by one or more forms of backwardness. The identification of such areas is relevant for spatial planning and for design and implementation of programmes for the development of physical infrastructure and industrial development so as to bring about a more balanced development of the State.

1.61. In addition to the programme of Tribal Areas, DPAP, Desert and Industrially Backward Areas the State Government has specific programmes for fifty-six talukas identified as backward by Hathi Committee; Seven districts identified as backward for industrial incentives by the State Government, Backward tracts like Khakharia Tappa, Ghed, Bhal, Nalkantha, Panchal, Okha Mandal, Pandu Mewas, Ukai irrigation project affected resettlement area, Kharapat and Vagdod area etc., have been identified for a special programme for dealing with such backward tracts. Dr. I. G. Patel Committee has examined the list of talukas identified as backward by the Hathi Committee and has drawn up a fresh list of backward talukas for special assistance. The report of the Committee is under consideration of the State Government.

1.62. There are, besides, other areas, such as the coastal areas, border areas and hill areas which also have their own specific problems. So have some of the Talukas in North Gujarat located on the right bank of the proposed Narmada canal. While the Decentralised District Planning can contribute towards reduction in inequalities in respect of basic minimum needs among different talukas, it might still be necessary to continue all the current programmes and evolve programmes aimed at specific causes of backwardness which sometimes spread over district and taluka boundaries.

1.63. It would also be necessary to identify some of the basic minimum needs such as drinking water, rural electrification and road connections that can definitely be provided to all villages by the end of the Seventh Plan. The current status of satisfaction in the matter of these basic minimum needs and the prospects of full coverage of all villages during the Seventh Plan are discussed under respective sectors.

CHAPTER II

THE APPROACH AND STRATEGY

2.1. A nation's political and social philosophy stems from its historical past and from the basic structure of its Constitution. India has chosen to be a federal socialist republic with parliamentary democracy.

2.2. The basic objectives of planned economic development in the Country are best stated in the Directive Principles of the Constitution. These principles enjoin the State to so distribute the ownership and control of material resources of the community, as best to subserve the common good. The Constitution further emphasises that the "State shall promote with special care the educational 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 exploitation." Any planning exercise must, therefore, aim at subserving these basic objectives.

2.3. The objectives of removing gross poverty and unemployment and increasing productivity have been the unassailable objectives of the successive five year plans. However, it is the strategy which varies from plan to plan. The guiding principles for the formulation of the Seventh Five Year Plan-1985-90 have been approved by the National Development Council. The Seventh Plan seeks to consolidate the gains of past investments spread over three and a half decades of planning and to launch the nation on the path to further development. The emphasis will continue to be on growth, equity and social justice, self reliance, improved efficiency and productivity. Within this framework, the movement towards social justice has to be fastened and there must be a sharper focus on productive employment and poverty alleviation. Hence, the Seventh Plan emphasises policies and programmes which will accelerate the growth in foodgrains production, increase in employment opportunities and what is equally important, raise significantly the existing levels of productivity. Food, Work and Productivity are the key elements of this approach.

2.4. The major objectives of the Seventh Plan of the Country are :

1. Decentralisation of planning and public participation in development.
2. Maximum possible generation of productive employment.
3. Alleviation of poverty and a reduction in inter-class, inter-region and rural-urban disparities.
4. Attainment of self-sufficiency in food at higher levels of consumption.
5. A higher level of social consumption particularly in education, health, nutrition, sanitation and housing.
6. An enhancement in the degree of self-reliance through export promotion and import substitution.
7. Acceleration of the voluntary adoption of a small family norm and a positive role for women in economic and social activities
8. A reduction in infrastructural bottlenecks and shortages and improved capacity utilisation and productivity throughout the economy.
9. Efficiency, modernisation and competition in industry.

10. Conservation of energy and promotion of non-conventional sources. of energy
11. The integration of science and technology into the main stream of development planning.
12. Ecological and environmental conservation.

2.5 While the national objectives of the Seventh Plan can be readily traced to the broad social and economic philosophy underlying the Indian Constitution, the objectives of each State in India will have to be on the one hand in line with the national parameters and, on the other, in conformity with the specific pattern of the natural resources endowment and social characteristics of the population in the State.

2.6 Gujarat is among the States with a relatively better record of performance in planned development. It has come to occupy a significant place in the national economy although it accounts for only 5 per cent of the Country's population and 6 percent of the area. Gujarat's economy has grown with diversification.

2.7 It contributes about 6.5 per cent towards net national product and ranks fourth on the basis of per capita income. It is the second most industrialised State of India, accounting for 10 percent of the total number of registered factories in the Country, 9 percent of the total factory employment and 10 percent of national income generated in factory sector. It is the third most urbanised State of India. It is also the fourth most literate State of India.

2.8 The State's Seventh Plan is based largely on the Approach Paper towards the Seventh Plan-1985-90 prepared in July 1983. This paper has enumerated specific objectives of the Seventh Five Year Plan-1985-90 of Gujarat State. Broadly these are:

- A significant step up in the rate of growth of economy
- Full utilisation of productive capacity of capital assets and institutional capability already created in various sectors of the economy
- To ensure minimum desirable levels of incomes for the large majority of the population below the poverty line through provision of productive assets and skills
- To provide, in a phased manner, basic minimum needs to the entire population of the State
- To ensure the balanced development of all regions of the State
- To bring about harmony between the short and long term goals of development through attention to ecological and environmental aspects
- To promote policies for controlling the growth of population through voluntary acceptance of the small family norm
- To promote the active involvement of people in the process of development through decentralised planning.

2.9. It is recognised that the concept of development should embrace issues of social, educational, cultural and material progress of each individual ; development should, therefore, encompass a larger canvas than what is depicted by gross national product and per capita income. The emphasis on physical quality of life and the need for extension of social services, especially in rural areas should reflect this concern.

Alleviation of Poverty

2.10 Alleviation of poverty has been one of the major objectives of successive five year plans. Despite many new initiatives in successive five year plans, there is great deal more that remains to be done. The studies conducted by the Planning Commission reveal that there has been reduction in the incidence of poverty at all India level and in all the States,

2.11. Given the methodological difficulties in assessing poverty, year-to-year-fluctuations in the agricultural seasons, uncertainties regarding the range and impact of policies for redistribution of incomes and difficulties in assessing impact of various programmes for augmenting the incomes of the poor, it is difficult to estimate how many people would be living below poverty line.

Target Groups

2.12. Global estimates of levels of poverty do not help in identifying the specific groups in population in need of assistance in various forms for improving their skills and income. It is, in this context, and in the light of a variety of family oriented programmes initiated during the Sixth Plan that an enumeration of different target groups in the population becomes relevant.

2.13. The main target groups for inclusion in the programmes for poverty alleviation are :—

	Population in lakhs
1. Scheduled tribes	48.5
2. Scheduled castes	24.4
3. Socially and economically backward classes (Baxi Panch)	50.0
4. Families of rural artisans	5.0
5. Agricultural labourers	24.9
6. Small and marginal farmers	14.0

2.14. It is expected that 50 per cent of the families belonging to the scheduled castes and tribes would have been provided productive assets during the Sixth Plan period to enable them to augment their incomes. These programmes would have to be continued so as to cover additional SC/ST families during the Seventh Plan period.

2.15. Over one lakh families belonging to rural artisans would have been helped through provision of training and productive assets during the Sixth Plan period. These programmes will be accelerated during the Seventh Plan.

2.16. Small and marginal farmers and agricultural labourers are principally assisted through the Integrated Rural Development Programme. Approximately, one lakh such families were being assisted each year under IRDP during the Sixth Plan. Subject to national guidelines, at least 50 per cent of the remaining families would be assisted in the Seventh Plan.

2.17. Though other target groups are spread throughout the State, separate machinery in the form of corporations and full time officers at the district level is in place to cater to the needs of these population. The survey of poor households undertaken under the IRDP should help to identify the majority of such families

in rural areas. In respect of urban areas, similar surveys of urban poor may have to be undertaken to identify the location and other characteristics of such urban families living below the poverty line in urban areas of the State.

Backward Areas-Spatial Planning

2.18 Poverty may be as much due to the low level of economic skills of the poor people as to the resource endowment and the level of development of a particular region. It would, therefore be useful to identify geographical regions in the State characterised by one or more forms of backwardness. The identification of such areas is relevant for spatial planning and for design and implementation of programmes for the development of physical infrastructure and industrial development so as to bring about a more balanced development of the State.

2.19. Four types of backward regions covered by national programmes are :

Tribal Areas—Covering 32 talukas and 15 tribal concentrations spread over nine districts.

Drought Prone Areas—(As identified by the Irrigation Commission)—Covering 58 talukas spread over 10 districts, covering 35 percent of the area of the State and 24 percent of the population of the State.

Desert Areas.—Located in Kachchh, Banaskantha and Mahesana districts.

Industrially Backward Areas—Ten Districts—Amreli, Banaskantha, Bhavnagar, Bharuch, Junagadh, Kachchh, Panchmahals, Mahesana, Sabarkantha and Surendranagar, have been declared by the Central Government as industrially backward districts. In addition, Dangs district has been declared as “No Industry District.”

2.20. In addition, there are State level programmes specifically focussed on specific items of backwardness. A Committee under the Chairmanship of Dr. I. G. Patel has identified the backward areas and recommended programmes. The report of the Committee is under consideration of the Government.

2.21. There are, besides, other areas such as the coastal areas, border areas and hilly areas which also have their own special problems. So do some of the talukas in North Gujarat located on the right bank of the proposed Narmada canal.

2.22. While the Decentralised District Planning has contributed towards reduction in inequalities in respect of basic minimum needs among different talukas, it might still be necessary to continue all the current programmes and evolve programmes aimed at specific causes of backwardness which sometimes spill over to district and taluka boundaries.

2.23. It would also be necessary to identify some of the basic minimum needs *viz.* drinking water, rural electrification and road connections that should definitely be provided to all villages by the end of the Seventh Plan. The current status of satisfaction in the matter of these basic minimum needs and the prospects of full coverage of all villages during the Seventh Plan are discussed under relevant sectors.

Pattern of Economic Growth

2.24. Between 1960-61 and 1982-83 national economy has grown at an annual compound growth rate of 3.5 per cent and Gujarat economy at a rate of 3.9 per cent. During sixties (1960-61 to 1970-71). Gujarat and national economy grew at 3.3 per cent per annum and 3.2 percent per annum respectively. Between 1970-71 and 1983-84 the average annual compound growth rate of Gujarat economy

accelerated to 4.7 percent as against the national economic growth of 3.8 percent. Gujarat's economy has been growing at a faster pace than the national economy particularly in the Seventies and the Sixth Plan Period.

Sectoral Growth Profile

2.25 The primary, secondary and tertiary sectors of the State economy also reflect trends of acceleration as can be seen from the following table.

Sr. No.	Sector	Rate of Growth per annum	
		1960—61 to 1970—71	1970—71 to 1983—84
1.	Primary	2.9	3.0
2.	Secondary	3.6	5.9
3.	Tertiary	3.5	5.9
TOTAL		3.3	4.7

2.26 The primary sector however, sustained the same rate of growth, 2.9 percent during the years 1960-61 to 1970-71 and 3.0 percent thereafter. But, the secondary and tertiary sectors have reflected clear evidence of accelerated rate of growth since 1970-71. The secondary and tertiary sectors registered a growth rate of 3.6 percent and 3.5 percent per annum respectively during the period 1960-61 to 1970-71. During the recent period from the 1970-71 to 1983-84 both the sectors have shown a substantially higher growth rate of 5.9 percent per annum. The higher rate of growth in the secondary and tertiary sectors achieved during 1970-71 to 1983-84 period is expected to continue during the coming years. This would enable higher overall rate of growth of the economy.

2.27 The task of acceleration will have to be achieved through increased productivity in all the sectors. In particular, the productivity of land and labour will need to be increased by better and effectient utilisation of existing resources and capacity already created. There is considerable scope for stepping up the growth of the primary sector which calls for concentrated effort. The economic viability of past investments will have to be strengthened by providing necessary complimentary investments. All future investments should also have optimum viability. It is felt that it may be possible to achieve the growth rate of around 5.0 percent during the Seventh Five Year Plan, given the industry and enterprise of the people, industrial peace in the State, incentives provided by the Government and the trends observed during the recent past combined with continued planned efforts for economic development.

Demographic Perspective of Gujarat

2.28. Gujarat's population has increased by 274.8 percent in the last eight decades from 91 lakhs in 1901 to 341 lakhs in 1981. The population growth has been very rapid in the last 30 years. During this period, it doubled from 163 lakhs in 1951 to 341 lakhs in 1981. However, for the first time in the last 80 years, the growth curve of Gujarat's population has shown a marginal downward trend in the seventies. The average annual growth rate went up from less than one per cent per annum in 1901-11 to 2.58 per cent per annum in 1961-71, but during the seventies, it has declined to 2.4 per cent per annum.

2.29. Gujarat accounted for 3.9 per cent of India's population in 1901. In 1981, Gujarat accounted for 5 percent of India's population. If these trends continue unchanged, Gujarat may account for 5.18 per cent of India's population in 1991 and 5.28 per cent in 2001.

2.30. According to these projections, Gujarat population will grow from 341 lakhs in 1981 to 430 lakhs in 1991 and 530 lakhs in 2001. The growth rate of population is expected to decelerate in successive decades consequent up on declining birth rate. The annual average rate of growth in population has been projected at 2.3 percent during 1981-91 and 2.1 per cent at during 1991-2001. At this rate, Gujarat's population during 1981-2001 is likely to increase at an annual compound growth rate of 2.2 percent. According to these projections, Gujarat's population will grow from 341 lakhs in 1981 to 374 lakhs in 1985, 421 lakhs in 1990 and 518 lakhs in 2000.

2.31. As a result of population increase, the density of population which was 46 per sq.km. in 1901 has grown to 173 per sq.km. in 1981. The land:man ratio, adverse as it is has now fallen to 0.38 hectare in 1981.

2.32. Despite the efforts undertaken through the National Family Planning Programme and the consequent fall in the birth rate and infant mortality rate in the last ten years, Gujarat is still far from achieving the national objective of reaching net reproduction rate of one by 1994-95, as embodied in the National Population Policy. This is largely because the age-specific fertility rate has changed only marginally in recent years in the State. In particular, there is no significant change in the fertility rate for the most productive age group- 15-29 during the period 1965-75. This implies that the set of incentives and disincentives for family planning should be more carefully calibrated with reference to specific age groups in terms of their fertility potential.

Urbanisation

2.33. Gujarat is one of the most urbanised States in India, next only to Maharashtra and Tamil Nadu. The rate of urbanisation of Maharashtra and Tamil Nadu has slowed down significantly during 1971-81 as compared to 1961-71 but in the case of Gujarat it has continued to grow at the rate of 3.5 per cent per annum during sixties and seventies. The urban population of Gujarat has increased by 420 per cent in the last 8 decades from 20.3 lakhs in 1901 to 105.6 lakhs in 1981. It has been very rapid since 1961, it doubled from 53.2 lakhs to 105.6 lakhs in 1981, with the number of towns increasing from 181 to 255. This trend in urbanisation is expected to continue over the next two decades 1981-2001.

2.34. The urban population constitutes 31 percent of the State population in 1981 which may increase to about 36 percent by 2001. The urban population of Gujarat is likely to increase from 106 lakhs in 1981 to around 150 lakhs in 1991 and to around 200 lakhs in 2001. This means that more than 50 percent of the increase in the population of Gujarat may be in the urban areas.

2.35. This rapid rate of urbanisation has resulted in serious pressures on urban land resources and has strained civic amenities such as water supply and drainage, transportation and social recreational services.

Sectoral Strategy

2.36. A carefully balanced and integrated plan frame must ultimately achieve functional integration and spatial integration simultaneously. The rate of growth within each sector will have to be made consistent within an intersectoral frame.

Inter-sectoral relationships are governed by a number of forward and backward linkages and call for effecting meaningful balances in many sectors and consistency in planning decisions at many levels.

2.37. In formulating sectoral programmes, special care has to be taken for devising suitable schemes particularly for improving the productive capacity and consumption standards of the vulnerable sections of the community. Of particular importance is the progressive application of science and technology for promoting the welfare of the population below the poverty line.

2.38. The inter-sectoral consistencies should ultimately result in maximising productivity in each of the sectors. An integrated approach has been adopted in the formulation of the plan proposals in this document. Programmes have been envisaged with a view to generating employment and stepping up income of the under-privileged and providing infrastructure to the areas where they are most needed.

2.39. The next chapter on "PLAN FRAME" provides the guiding factors for the investment strategy and sectoral distribution of outlays and the key targets envisaged in the Seventh Plan.

CHAPTER III

THE PLAN FRAME

3.1. The development strategy of a Plan derived from its basic objectives finds concrete expression with rate and pattern of growth, profile of investment and the attainment of key targets. This chapter presents the profile of investment envisaged in the Seventh Plan 1985-90 and indicates the level of developments likely to be reached by the end of 1989-90.

3.2. In determining the size and inter-sectoral distribution of outlays for the Seventh Plan due consideration has been given to the following :

- the level of development reached at the end of the Sixth Plan and the need to maintain the pace of progress and exploit optimally the growth potential built up in different sectors.
- to provide adequate outlays for poverty alleviation programmes that affect the quality of life of the poor.
- to ensure that the projects at advanced stage are completed soon so that the returns on the investments accrue to the economy immediately on completion of the projects.
- to provide for the externally assisted projects.
- to provide for the requirements of Narmada-Sardar Sarovar Project
- to provide matching investments for Centrally Sponsored Schemes.
- Wherever applicable, the outlays take into account the committed expenditure transferred to non-Plan.

Profile of Investment.

3.3. The State's Seventh Plan has been finalised at a size of Rs. 6000 crores. This is proposed to be financed by contribution of Rs. 4948.33 crores of State's own resources and Rs. 1051.67 crores of Central assistance. The Seventh Plan envisages a mark up of 63 percent over the originally approved Sixth Plan outlay of Rs. 3680 crores.

3.4. The development strategy underlying the Seventh Five Year Plan 1985-90 has been spelt out in an earlier chapter. The investment priority envisaged under the Plan shall have to be in conformity with the strategy of development. An outlay of Rs. 6000 crores for the Seventh Plan has been provided. The major sectorwise distribution is as under :—

(Rs. in Crores)

Sector of development	Seventh Plan 1985-90	
	Outlay	% to total
1	2	3
I Agriculture and Allied Services	350.00	5.83
II Rural Development	124.30	2.07

	1	2	3
III	Co-operation	36.40	0.61
IV	Irrigation & Flood Control Water Development.	1462.03	24.37
	Minor Irrigation	134.55	2.24
	Command Area Development	60.67	1.01
Total : Irrigation and Flood Control		1657.25	27.62
V	Power Development	1466.50	24.44
VI	Industries & Mines	257.85	4.30
VII	Transport	377.40	6.29
VIII	Scientific Services and Research	8.00	0.13
IX	Social & Community Services	900.00	15.00
X	Economic Services	16.10	0.27
XI	General Services (including Decentralised District Planning.)	256.20	4.27
XII	Mid-Day-Meals Programme	550.00	9.17
GRAND TOTAL		6000.00	100.00

A detailed statement showing the sectoral /sub-sectoral distribution of these outlays is appended (Appendix---A)

3.5. Highest priority has been given to the programmes of agriculture, rural development, co-operation, irrigation and power. The outlays for these sectors add upto 60.57% of the total outlays for Seventh Plan. Within this, agriculture including rural development and co-operation accounts for 8.51 %, irrigation 27.62 % and power 24.44 %. The share of industries and minerals is 4.30 %, allocation for transport accounts for 6.29% whereas social and community services, scientific services and research, general and economic services including decentralised district planning and Mid-Day-Meals programme accounts for 28.84 % of the Seventh Plan Outlays.

3.6. In the Irrigation Sector Sardar Sarovar Project which is being assisted by the World Bank is given the highest priority in the allocation of resources. This project accounts for Rs. 1210 crores in the Seventh Plan-Rs. 1063.50 crores under Irrigation Sector and Rs. 146.50 crores under Power.

3.7. Sardar Sarovar is a gigantic inter-State multi-purpose project which would transform the face of Western India. This project being of National importance

deserves special attention of all the participating States and the Govt. of India. The cost and benefit of this project are to be shared by the participating States viz. Madhya Pradesh, Maharashtra, Gujarat and Rajasthan in accordance with the decision of the Narmada Water Disputes Tribunal.

3.8. The estimated cost of the entire project will be shared by the party-States as under :

(Rs. in crores)

State	Irrigation	Power	Total
Gujarat	4520	181	4701
Rajasthan	141		141
Maharashtra	—	306	306
Madhya Pradesh	—	645	645
Total	4661	1132	5793

3.9. Considering the large magnitude of the project requiring huge financial resources, the project was posed for World Bank assistance through the Government of India. The World Bank has agreed to provide assistance for this project. The Government of India has signed the agreement in respect of this project with the World Bank. Under the terms of this agreement the world Bank will provide 300 million dollars (roughly Rs. 375 crores) for the main dam and civil works of Power house and 150 million dollars (roughly Rs. 187.50 crores) for the main canal and distribution system.

3.10. The Twenty Point Programme announced by the late Prime Minister Smt. Indira Gandhi in January, 1982 is in essence the full commitment to advance the objectives and targets for the planned development, especially in terms of its impact on the lives of the poor. Around 68 percent of the proposed outlays for the Seventh Plan accounts for the projects/programmes covered under the Twenty Point strategy.

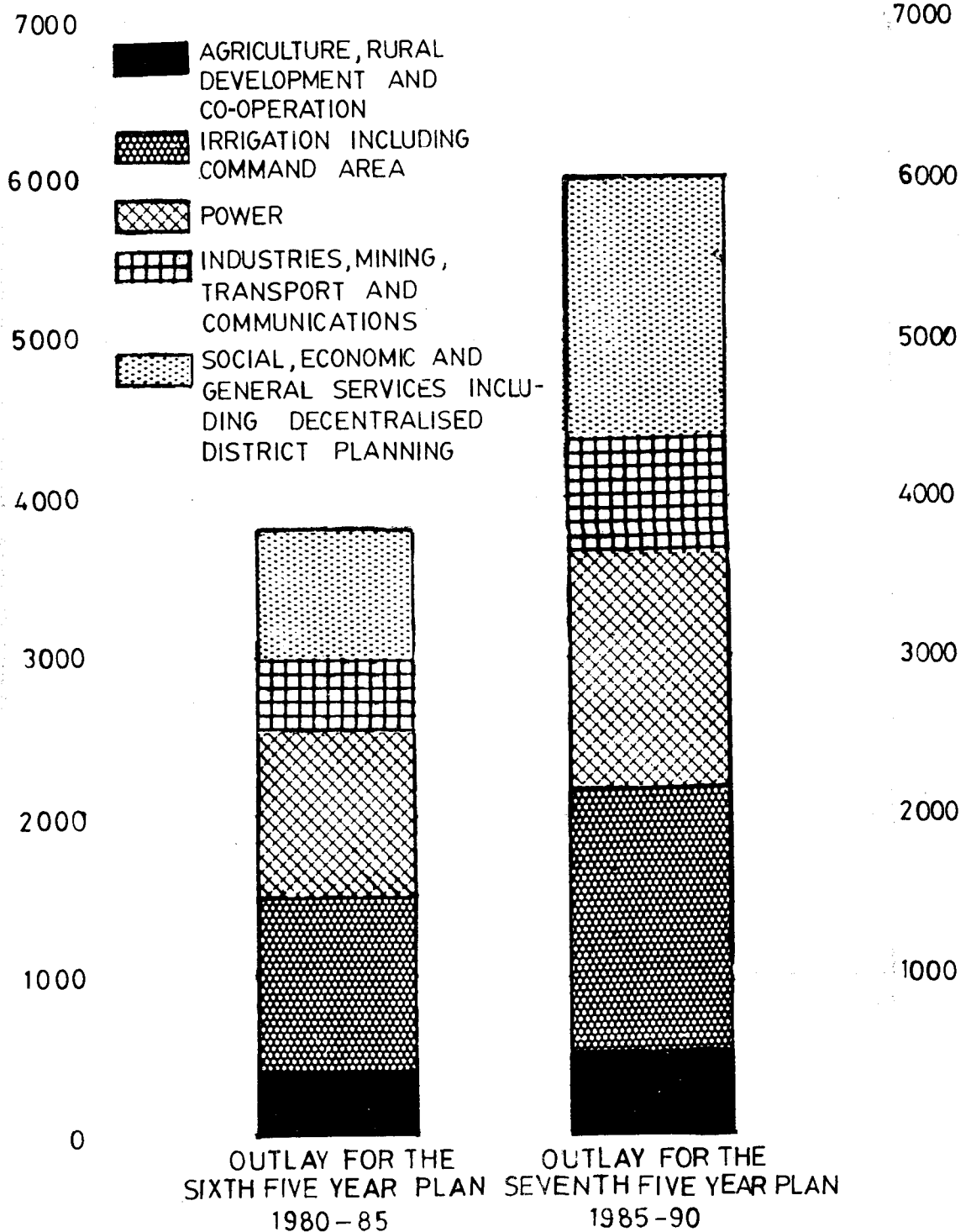
3.11. The State Plan outlays are expected to be supplemented by the Centrally Sponsored Programmes, estimated at around Rs. 817 crores during the Seventh Plan period 1985-90

3.12. World Bank assistance is available for projects in core Sectors of development viz., Agriculture, Forestry, Irrigation including Sardar Sarovar Project, Water Supply and Sewerage, Rural Roads and Urban Development. An outlay of around of Rs. 1700 crores is provided for these projects in the State's Seventh Plan.

3.13. The spillover liability in the selected sectors, viz., irrigation projects (including Narmada Project), power (ongoing and approved) projects, road development, minor irrigation projects/schemes, ports, capital project, housing etc. at the end of March, 1985 is estimated at about Rs. 7800 crores. Keeping in view this spill over liability an outlay of about Rs. 2238 crores has been provided for the Seventh Plan 1985-90.

COMPARATIVE OUTLAYS FOR FIVE YEAR PLAN 1980-85 AND 1985-90

RS. IN CRORES



3.14. An outlay of Rs. 321.36 crores is provided for the Minimum Needs Programme which has special relevance in the context of improving productivity and income for the target groups as well as minimum acceptable standards of shelter, education, health services and road links. It is in this context of the physical quality of life that the State Government has launched the *Mid-Day Meals Programme* for children in vulnerable age groups, as a part of the human resources development programme. The provision of wholesome nutritious meals has come as a boon to underfed and ill nourished children of poor parents who are now motivated to send their children to schools and to allow them to continue their studies. A detailed health check of the beneficiary children has been organised to ensure that nutritional deficiencies are corrected and to provide bench mark for periodical evaluation in future. This programme is to be viewed both from the point of view of primary education and raising the nutritional levels of school children as also a poverty alleviation measure. The Planning Commission has accepted the Programme with an outlay of Rs. 550 crores for inclusion in the State's Seventh Plan, benefiting 50 lakh children studying in the primary schools of the State.

3.15. A special programme for rural development is being implemented in the State by grouping various programmes viz., Intergrated Rural Development Programme Including project linkage, National Rural Employment Programme, Drought Prone Area Programme and a new programme of Integrated Village Environmental Improvement to give maximum benefit to the poorest among the poor and to bring them above the poverty line.

3.16. An outlay of Rs. 124.30 crores is provided for rural development programmes for the Seventh Plan 1985-90. Most of the programmes are Centrally Sponsored on matching basis. It is expected that the Central Government would provide Rs. 109 crores for the Seventh Plan period. In addition, Rural Landless Employment Guarantee Programme is fully financed by the Central Government for which an outlay of Rs. 74 crores is envisaged.

3.17. The programme of social and community services alongwith the application of science and technology and the programme of meeting the basic needs of the area/people would lead to improvement in the quality of life. Priority would be accorded to the programmes of providing drinking water to all the villages, women's education and welfare, basic health cover for rural areas, and rural housing.

3.18. The development needs of scheduled tribes and scheduled castes would be met through the mechanism of Tribal Area Sub-Plan and the Special Component Plan for the scheduled castes. Care has been taken to provide adequate funds out of the divisible pool for these programmes.

3.19. A provision of Rs. 244 crores is made in the Seventh Plan for decentralised district planning which is expected to go a long way in fulfilling the basic local needs of villages/talukas. The computographic techniques have helped to identify the missing basic amenities in the villages, the choice of programme mix will be based on the needs of the area to be decided at local level. A programme of development of backward areas which would directly benefit the backward and problem areas spreading over the administrative boundaries of one or more talukas/districts, will now be a part of the decentralised district planning. A Committee under the chairmanship of Dr. I. G. Patel, former Governor of the Reserve Bank of India, has identified backward talukas for special treatment, so as to bring them up in socio-economic terms. The report of this Committee is now under consideration of the State Government.

Coastal Area Development

3.20. The State has a long Coast line of over 1600 Kms. Many areas adjoining the coast line suffer from problem of salinity ingress resulting in permanent damage to agricultural lands and accentuating problem of drinking water supply. Several coastal areas also suffer from infrastructural and other deficiencies which come in the way of rapid development of these areas. Ports, Fisheries, Mineral and Salt-based Industries, Salt works and Development of hinter land are important segments of the coastal area economy. The development of the coastal area call for special attention. The planning Commission has also recognised the development of coastal areas as a special problem. The programmes for the development of coastal areas are a part of State's Seventh Plan.

Key Targets of Production and Infrastructure

3.21. An additional foodgrain production potential of over 11 lakh tonnes is expected to be created during the Seventh Plan period raising the production potential level to 62.76 lakh tonnes by the end of 1989-90. The oilseed production potential level is likely to be of the order of 28.40 lakh tonnes by the end of 1989-90. In the case of cotton, the target proposed for the Seventh Plan is to reach the level of 20 lakh bales by the end of 1989-90. The basic elements of the action strategy for increasing crop production are :

- to increase the areas under high yielding varieties of food crops from the level of 24.48 lakh hectares in 1984-85 to 26.30 lakh hectares at the end of 1989-90
- to raise the consumption level of chemical fertilizers from 5.20 lakh tonnes at the end of 1984-85 to 8.34 lakh tonnes at the end of the 1989-90.
- to bring an additional area of about 1.84 lakh hectares during the Seventh Plan period under the soil conservation measures on watershed approach.
- transfer of technology to a large number of farmers within the shortest possible time through T and V system.
- to create an additional irrigation potential of 1.00 lakh hectares as a result of major and medium irrigation projects and 4.40 lakh hectares through minor irrigation works. Apart from tanks and bandharas, priority is being given to the percolation tanks and check dams which give indirect benefits by raising water levels. The programme of tubewells is proposed to be accelerated with a target of 1200 tubewells in the Seventh Plan.
- to intensify the programme of command area development through the extensive field channel works from all completed irrigation projects for fuller utilisation of 11 lakh hectares of irrigation potential created upto the end of the Sixth Plan and one lakh hectares for the Seventh Plan period.

3.22. The installed capacity for power generation is likely to increase from 3383 MW at the end of the Sixth Plan to 5113 MW at the end of the Seventh Plan; thus adding 1730 MW to the power system. Given the rising cost of power generation and difficulties in transportation of coal over long distance, energy conservation would have to be taken up as a mass movement during the Seventh Plan. The need to switch over to renewable sources of energy such as solar, wind, biogas is increasingly realised. The Gujarat Energy Development Agency (GEDA) has initiated during the Sixth Plan period many experiments to harness renewable sources of energy including the use of solar and wind energy for cooking, heating and pumping purpose. Measures for large scale application may have to be initiated during the Seventh Plan.

3.23. Out of 18275 villages (Census 1971), by the end of Sixth Plan, 16135 villages would have been electrified. The Seventh Plan Programme envisages to cover the remaining 2140 villages. It is also proposed to provide electricity to 3500 hamlets (petaparas) and to convert 800 villages from agriculture purpose to all purpose in the Seventh Plan. The programme for energisation of tubewells and pumpsets is to cover 1.00 lakh additional connections during the Seventh Plan period.

3.24. The net addition of 4275 kms. to the road network has been targetted to raise the total length to 59835 kms. by the end of Seventh Plan 1985-90. It is proposed to provide *pucca* road links to 1783 additional villages during the Seventh Plan period.

3.25. Under the programme of rural housing it is proposed to allot 2.06 lakh sites during the Seventh Plan period and to provide construction assistance to 3.07 lakh allottees during the Seventh Plan period 1985-90.

3.26. Under the massive programme of skill building and vocational training, it is proposed to introduce additional 12,000 seats in ITI courses raising the total intake capacity to 38648 seats at the end of 1989-90.

3.27. Under the Minimum Needs Programme, the targets proposed for the Seventh Plan are as under :—

—appointment of 26650 primary school teachers to take care of 9.45 lakh additional children in the age group 6-11 and 7.21 lakh children in the age group 11-14.

—electrification of all the remaining villages.

—provision of safe drinking water facilities to 826 no source villages of 1980 list and to cover additional 4174 problem Villages; with the ultimate objective of providing drinking water to all villages.

—connecting 1783 villages with *pucca* roads.

—establishment of additional 690 primary/subsidiary health centres raising the total number of centres to 1000 mostly by upgrading existing dispensaries.

—providing construction assistance to 3.07 lakh allottees of free plots.

—accelerating the programme of environmental improvement of slums to cover 2 lakh additional beneficiaries.

—by way of reducing the incidence of malnutrition, augment provisions for special nutrition programmes covering children in the age group 0-6 and nursing mothers belonging to weaker sections of the society. In the Seventh Plan, 7.25 lakh additional beneficiaries would be covered.

—The number of integrated child development blocks (ICDS) is proposed to be increased from 63 at the end of Sixth Plan to 156 by the end of Seventh Plan. These centres provide nutritional services to children and women alongwith a package of Mother Child Health Services.

—The mid-day meal programme is being implemented throughout the State.

3.28. A statement showing the selected physical targets proposed to be achieved by the end of Seventh Plan 1985-90 is appended (Appendix—B).

APPENDIX—A

Seventh Plan—1985-90

Sector/Sub-Sectorwise Outlays

(Rs. in lakhs)

Sr. No.	Sector/Sub-Sector of Development	Approved outlay	Capital content	MNP component of the approved outlay
1	2	3	4	5
I. Agriculture and Allied Services				
1.	Research and Education	3033	..	
2.	Crop Husbandry	7720	661	
3.	Soil and Water Conservation	5763	563	
4.	Animal Husbandry	1820	250	
5.	Dairy Development	182	5	
6.	Fisheries	2426	1228	
7.	Forests (Including Wild Life)	12964	11470	
8.	Investment in Agricultural Financial Institutions	971	971	
9.	Marketing, Storage and Ware-housing	121	51	
	Total—Agriculture and Allied Services	35000	15199	
II. Rural Development				
1.	Integrated Rural Development Programme (IRDP)	5284	..	
2.	Strengthening of Special Programme Organisation	80*	..	
3.	Development of Women, and Children in Rural Areas	40	..	
4.	Project Linkage	35	..	
5.	National Rural Employment Programme (NREP)	3700	..	
6.	Drought Prone Area Programme (DPAP)	1575	..	
7.	Desert Development Programme (DDP)	256	..	
8.	Regional Rural Banks	11	..	
9.	Strengthening Training Facilities for Rural Development	10	..	

* Outlays will be enhanced through the mechanism of Annual Plans.

1	2	3	4	5
10.	Integrated Village Environmental Improvement Programme (IVEIP)	44*	..	..
11.	Community Development and Panchayats	485	..	..
12.	Land Reforms	910	..	..
	Total—II Rural Development	12430	..	..
III.	Co-operation	3640	1658	..
IV.	Irrigation and Flood Control			
1.	Water Development (Irrigation)	146203	143403	..
2.	Minor Irrigation	13455	1900	..
3.	Command Area Development	6067	..	..
	Total—IV—Irrigation and Flood Control	165725	145303	..
V.	Power Development	146650	145225	..
VI.	Industries and Mineral			
1.	Village and Small Industries	14361	5144	..
2.	Large and Medium Industries	9557	8312	..
3.	Mining	1867	1367	..
	Total—VI—Industries and Minerals	25785	14823	..
VII.	Transport			
1.	Ports, Lighthouses and Shipping	3036	3036	..
2.	Roads and Bridges	25785	23785	3724
3.	Road Transport	8494	8494	..
4.	Tourism	425	138	..
	Total—VII—Transport	37740	35453	3724
VIII.	Scientific Services and Research			
1.	Science and Technology	450	..	..
2.	Environment and Pollution Control	350	149	..
	Total—VIII—Scientific Services and Research	800	149	..

1	2	3	4	5
IX. Social and Community Services				
1. General Education		8676	470	5837
2. Technical Education		1820	1085	..
3. Medical and Public Health		10314	2849	4842
4. Sewerage and Water Supply		16866	14763	6233
5. Housing		16442	11528	6450
6. Urban Development		9768	3400	500
7. Capital Project		3337	3337	..
8. Information and Publicity		758	50	..
9. Labour and Labour Welfare		4911	2564	..
10. Welfare of Backward Classes		11527	1689	..
11. Social Welfare		728	98	..
12. Nutrition		4550	..	4550
13. Social Inputs		303	120	..
Total—IX Social and Community Services		90000	41953	28412
X. Economic Services				
1. Secretariat Economic Services (Planning Machinery)		304	..	..
2. Statistics		789	350	..
3. Weights and Measures.		182	25	..
4. Training of Development Personnel		213	184	..
5. Administrative Machinery for TASP		122	..	..
Total—X—Economic Services		1610	559	..
XI. General Services				
1. Civil Supplies		366	366	..
2. Modernisation of Equipment (Wireless net work)		849	849	..
3. Decentralised District Planning		24405	..	..
TOTAL—XI—General Services		25620	1215	..
XII—Mid-Day Meals Programme		55000	..	..
GRAND TOTAL		600000	401537	32136

APPENDIX—B

Seventh Five Year Plan 1985-90

Selected Physical Targets

Item	Unit	Sixth Plan Target	Anticipated achievement at the end of 1984-85	Seventh Plan Terminal year 1989-90 target
1	2	3	4	5
I. Crop Husbandry				
1. Foodgrain Production				
(i) Total	'000 tonnes	5350	5100	6276
(ii) Of which pulses	"	600	537	550
2. Oilseeds Production	"			
(i) Total	"	2600	2214	2840
(ii) Of which groundnut	"	2328	1546	2190
3. Others				
(i) Production of Cotton	'000 bales	2430	1988	2000
(ii) Production of Sugarcane (Gur)	'000 tonnes	450	743	950
4. Consumption of Chemical Fertilizers (NPK)	"	670	520	834
II. Animal Husbandry				
(i) Milk	'000 tonnes	2640	2640	3285
(ii) Eggs	Million	360	220	308
(iii) Wool	Lakh Kgs.	21.00	19.17	23.00
III. Forests				
(i) Plantation of quick growing species	'000 Hect.	8.98	7.52	12.52
(ii) Economic and Commercial Plantation	"	25.44	20.21	37.00
IV. I. R. D. P.				
(i) Beneficiaries Identified	in lakhs (cum)	..	10.93	14.78
(ii) Beneficiaries Assisted	"	6.54	7.85	10.93
V. N. R. E. P.				
(i) Employment generated (including RLEGP)	Lakh man-days (cum)	..	504.40	735.65

1	2	3	4	5	6
VI. Minor Irrigation					
(i)	Potential	'000 Hect.	2032	1980	2420
(ii)	Utilization	„ (cum)	1694	1641	1901
VII. Major and Medium Irrigation					
(i)	Potential	'000 hect.	1272	1081	1181
(ii)	Utilisation	„ (cum)	753	715	795
VIII. Power Development					
(i)	Installed Capacity	MW (Cum)	3730	33830	5113
(ii)	Villages Electrified (1971 Census)	Nos. (Cum.)	18275	16135	18275
(iii)	Pumpsets and Tube-wells energised	„	327853	292387	392387
(iv)	Petapas to be electrified (new Programme )	„	..	..	3500
(v)	Conversion of villages from agriculture purpose to all purpose (new programme )	„	..	..	800
IX. Road Development					
1.	Total Roads (excluding national highways)				
(i)	Surfaced	Kms. (cum)	41360	46727	53002
(ii)	Unsurfaced	„	10213	8833	6833
	Total	„	51573	55560	59835
2.	Villages connected by roads				
(i)	With population of 1500 and above (5060) villages.	No. of villages (cum.)	3664	4602	5029
(ii)	With population of 1000-1500 (3241 villages)	„	2183	2395	2825
(iii)	With population below 1000 (9825 villages)	„	5219	4622	5548
	Total-18116 villages-(1981 census)	No. of villages (cum)	11066	11619	13402

CHAPTER IV

THE TWENTY POINT PROGRAMME

4.1 Introduction

4.1.1. The Revised Twenty Point Programme, announced in January, 1982, is a blue print for social transformation of our country. The programme, consisting of a selection of Plan schemes, is an integral part of the Seventh Plan and focuses attention on certain high priority areas of national development.

4.1.2. During the Sixth Plan period, the 20 Point Programme made a qualitative impact on the living conditions of the people, specially the rural poor. A large infrastructure for implementing the programme has already been established and its functioning has been made more effective to achieve the objectives.

4.1.3. Since its inception, the 20-Point Programme has been monitored regularly both at the Centre and State Level. During the 6th Plan the Planning Commission undertook regular reviews of the Programme and brought out monthly and quarterly progress reports which evaluated and rated the progress of the States and Union Territories. With the Seventh Plan 1985-90 the system of review is under modification with a view to ensuring intensive, prompt and qualitative review of the major plan schemes.

4.1.4. At the State Level, frequent reviews ensure that Gujarat performs consistently well in the Twenty Point Programme. A High Power Committee under the Chairmanship of the Chief Minister has been constituted. The State Cabinet also reviews the progress every month to enhance the pace of implementation. At the District Level and Taluka Level, committees comprising of non-officials and officials have been constituted.

4.2. Highlights of Achievements Progress in 1982-83

4.2.1. Some of the high-lights of performance in 1982-83 are as follows :—

—Gujarat stood first in the country in three items (1) Scheduled Tribe families economically assisted (523.8%) (2) Slum population covered (574.0%) and (3) House sites allotment (302.5%).

—The State was second in respect of National Rural Employment Programme (176.3%).

—The State was third in respect of Construction Assistance provide (106.6%).

—The State was fourth in respect of (1) Surplus land allotted (116.8%) and (2) Scheduled Castes families economically assisted (145.9%)

—The State was fifth in respect of IRDP families benefited (133.8%).

Progress in 1983-84

4.2.2. Out of the 15 selected items for the review, the State's performance was ahead of the targets in 11 items.

—Gujarat stood first in respect of

(1) Surplus land allotment (290.2%)

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- (2) House site allotment (290.8%)
- (3) Construction assistance (167.4%)

—The State was second in items of

- (1) S. C. families economically assisted (149.6%)
- (2) Drinking water to problem villages (161.0%)

—The State was third in item of National Rural Employment Programme. (152.6%)

Progress in 1984-85.

4.2.3. Gujarat secured fourth rank in the country in the annual review by the Planning Commission for ranking overall performance of the States and Union Territories.

Out of the 18 selected items the State's performance exceeded the target in 13 items and achieved more than 90% in 3 items.

- 1. Housesites allotment (162.8%)
- 2. S. C. Families economically assisted (137.7%)
(First rank in the country)
- 3. Slum population covered (136.4%)
- 4. Drinking water to problem villages (118.6%)
- 5. IRDP families benefitted (177.3%)
- 6. S. T. Families economically assisted (112.7%)
- 7. Surplus land allotment (107.9%)
- 8. NREP Mandays generated (107.2%)
- 9. Villages electrified (100.4%)
- 10. Construction assistance (100.3%)
- 11. Biogas plants set up (100.0%)
- 12. P. H. C. sanctioned (100.0%)
- 13. ICDS Blocks sanctioned (100.0%)

4.3. Seventh Plan Approach.

4.3.1. Poverty alleviation is one of the basic components of the Seventh Plan strategy. The package of poverty alleviation programmes will continue at an accelerated pace in the Seventh Plan. Special attention has been devoted to the problems of S.C.s and S.T.s who form the bulk of the population below poverty line in most places.

4.3.2. Inputs like power, fertilizers, agricultural implements and machinery for increasing agricultural production and productivity have been given due importance.

Thus the Seventh Plan would lay greater emphasis on the revised 20-Point-Programme of which poverty alleviation is the main plank.

4.3.3. During the Seventh Plan the outlay suggested for the points covered under Twenty Point Programme is of Rs. 4098.04 crores which is 68.3% of the total outlay for Seventh Plan.

4.3.4. Details of pointwise outlays are given in Statement I. Similarly physical targets are indicated in Statement-II.

4.4. Brief details of current status of progress and programme for Seventh Plan (1985--90) are indicated in the subsequent paragraphs.

Point-- Increase in Irrigation Potential Development and Disseminate Technologies and Inputs for Dry Land Agriculture.

1.1. Agricultural and industrial expansion can be achieved by multipurpose development of river system for irrigation, flood control, power generation etc. In Gujarat agriculture is the backbone of the economy as two third of the population depends on agriculture and only 18% of the cultivable lands are being provided with irrigation facilities. There is relatively limited water resources for irrigation and physical limitations about the available storage and diversion sites for the existing resources.

1.2. The ultimate irrigation potential being reported was based on old estimates. A committee headed by the Additional Chief Secretary was appointed. On the basis of the recommendations of the committee, the figures of irrigation potential created by major and medium irrigation projects has been reappraised. Ultimate irrigation potential after reappraisal would be 64.88 lakh hectares of which 39.40 lakh hectares is by surface water, which is inclusive of 17.92 lakh hectares of Narmada Project and 25.48 lakh hectares by ground water; earlier estimate of ultimate potential was 50.39 lakh hectares.

1.3. A committee headed by the Minister (Irrigation) was formed during 1980 for maximising the use of created irrigation potential on Major and Medium Irrigation Projects. The committee observed that utilisation of created irrigation potential is not evaluated correctly due to :

1. Reduction of cultivable command area (C. C. A.)
2. Areas above F. S. L. of canals.
3. Reduction in C. C. A. due to reappraisal of Major and Medium Schemes.

1.4. After proper evaluation, figures of irrigation potential created were reappraised to 8.62 lakh hectares instead of 10.12 lakh hectares at the end of June 1980 *i. e.* reduction of 1.50 lakh hectares.

1.5. Achievement at the end of June 1985 is as under :--

Item	Ultimate irrigation potential (Reappriased April 1984).	Potential created by June 1985	Maximum utilisation by June 1985
1 Major and Medium irrigation	35.92 (17.92 Narmada)	10.81	7.15
2 Minor irrigation	3.48	1.66	1.00
3 Ground water	25.48	18.14	15.41
Total	64.88	30.61	23.56

1.6. It can be seen that 47% of the total resource have been harnessed, while for surface irrigation it is only 31%. Against the total cultivable command area of 124.45 lakh hectares present potential created and utilisation achieved is only 24% and 17.7% respectively, while ultimate irrigation would be only 52% of the C. C. A. of the State. This is far below the national figure of 62.7%. Thus even with Narmada, the State will remain permanently well below the all India level in respect of irrigation facilities. One of the important aspects of the Sixth Five Year Plan was not only to optimise benefits through creation of irrigation potential by existing irrigation projects but also through significant improvement in the status of utilisation of the existing irrigation potential by effective and concentrated multi-disciplinary strategy and also by way of comprehensive Modernisation programme. Six medium projects have been taken up under this programme through World Bank. Modernisation of Ukai Kakarapar projects is also taken up under World Bank Aid programme. Modernisation of other projects is also on hand.

1.7. For economic use and suitable distribution of water among all the beneficiaries, the scheme of "Rotational system of supply of water" is also introduced. It is also planned to extend irrigation channels from 40 ha. chak upto 8 ha. chak.

1.8. With the development of irrigation command area of major irrigation projects specially under Mahi-Kadana and Ukai Kakarapar, drainage programme have been given high priority.

1.9. Problem of salinity ingress particularly in Saurashtra area has been adequately controlled. This project has been taken up with World Bank aid. A High Level Committee is specially set-up for the purpose.

Work on the Narmada Project has been launched effectively.

1.10. Strategy for Seventh Plan

—To complete on going projects and optimise benefits from existing projects.

—Plan comprehensive and effective measures for improving level of utilisation.

- To lay emphasis on drainage aspect as a part of overall anti-water logging strategy.
- Flood control works on principal river projects.
- Salinity ingress problems.
- Take up new schemes in tribal backward areas and drought prone areas.
- Launching Narmada project in a big way.
- Acceleration in modernisation programme.
- Implementation of warabandhi system effectively.

1.11. Minor Irrigation Works

- Tribal and backward areas will be given high priority.
- Efforts will be made to give irrigation facilities to small pockets where there is tribal and backward population.
- Area not covered under Narmada Project command area will be given priority.
- Preference to tanks and bandharas as they are of short gestation period and low cost per scheme and preference to work of percolation tanks and check dams giving indirect benefit.
- Exploitation of ground water to supplement surface irrigation.
- Survey, research and development of ground water resources including recharge
- Stepping up of mobilisation of institutional investment for ground water development.

1.12. Additional irrigation potential created by major and medium irrigation projects during Sixth Plan is 2.19 lakh hectares while for minor irrigation it is 2.43 lakh hectares, which is inclusive of ground water.

Achievement in respect of irrigation potential created is shown below:—

(level in '000 Hect.)

Item	1979-80	1984-85	1985-90
(1) Major/Medium Irrigation	862+ (1012)	1081	1181
(2) Minor irrigation	1737	1980	2420
Total ..	2599 (2749)	3061	3601

+ Reappraised.

During Seventh Plan 5.40 lakh hectares of addition irrigation potential will be created.

Command Area Development Programme

1.13. One major initiative towards increasing the rate of utilisation was setting up of Command Area Development Authorities. The State is divided into 4 zones and each zone is served by C.A.D.A. of that area. These authorities are expected to ensure a more efficient operation of irrigation system, accelerate construction of field channels and drains, as well as land shaping, landlevelling, exploitation of ground water through tubewells, adoption of suitable cropping pattern etc. Introduction of rotational water delivery system, setting up of water co-operatives modernising canal system and setting up of water management institution have been among the measures taken to improve the rate of utilisation during Sixth Plan.

1.14. It is proposed to include all the major and medium irrigation projects (having C.C.A. between 2,000 to 10,000 Hectares already completed and under construction at present under the CAD Programme.

1.15. Details regarding work done so far and programme for Seventh Five Year Plan are as under :—

(In lakh hectares)

Activity	Ultimate area	1979-80 level	Achievement	
			At the end of Sixth Plan	During Seventh Plan (Proposed)
Field Channel	21.17	3.89	5.47	6.56
Land levelling	3.33	0.51	1.01	1-24
Field drains	2.52	0.01	0.33	1.33
Warabandhi	21.17	0.02	0.98	6.85

Setting up of Water Cooperatives

1.16. It is proposed to bring about 7.5 lakh hectares of irrigated command area under water co-operative societies. Each society may cover about 100 hectares of area and may be given assistance of Rs. 10,000.

Co-operative Lift Irrigation

1.17. Lift irrigation schemes are taken up where sufficient flow of water is available in monsoon or on private wells. Government subsidy at the rate of 45% of the cost is being given while in tribal area 75% of the cost is being given as subsidy. Subsidy is given to the extent of Rs. 1700/- per acre. Managerial subsidy is also being given to employ technical personnel. Scheduled castes are being encouraged by way of giving 50% loan for becoming member of lift irrigation societies. During Sixth Plan 1994 lift irrigation Societies have been registered with a total Command area of 27,461 hectares.

1.18. It is proposed that during Seventh Plan there will be 180 new lift irrigation societies with irrigation potential of 18,000 hectares.

Dry Farming watershed Approach

1.19. Gujarat State Land Development Corporation is set up to undertake soil and water conservation programme.

Efficient management of dry land farming programme is critical to agricultural production in Gujarat. Out of 765 identified watersheds, 200 watersheds have been selected for concentrated soil conservation work.

1.20 In the Seventh Plan, emphasis will be on carrying out works in tribal areas and in drought prone areas. It is proposed to increase the coverage of land under various soil conservation work from 16.04 lakh hectares at the end of Sixth Plan to 17.88 lakh hectares at the end of Seventh Plan.

An outline for watershed project has been prepared. The work will be carried out on watershed basis in 16 districts in 4 lakh hectares.

1.21 The Corporation has set up 45 projects costing Rs. 1713.90 lakhs for the treatment of dry and ravine land on watershed basis covering an area of 37361 hectares. Out of these projects 17 projects have been sanctioned costing Rs. 323.74 lakhs covering an area of 18537 hectares.

Point 2 : Make Special efforts to increase production of pulses and vegetable oil-seeds.

Production of Pulses

2.1. Pulses, rich in protein, form a vital part of the diet of the people of India. Pulses can survive under conditions of moisture stress and help to fix nitrogen from the atmosphere. They are therefore important for dryland farming.

2.2. Traditionally our farmers have grown pulses not as principal but as bonus crops. In addition, deterred by low yields and lured by the remunerative cereal crops, pulses have been relegated to marginal unirrigated lands. With a view to augmenting the production of pulses and to bridge the gap of demand and supply, the production of pulses has been given a place in the revised 20 Point Programme.

2.3. Various measures like kharif campaign, national agricultural input fortnight, intensification of the distribution of seed minikits and special projects for assistance to small and marginal farmers have been undertaken to improve the productions of pulses in the Sixth Five Year Plan. The measures taken up for the development of dry land farming areas where pulses are largely grown and large scale free distribution of seed minikits of pulses to farmers have provided a push to pulses production.

2.4. Other measures for increasing pulses production include replacement of local varieties by improved ones and growing pulse crops as mixed crops with cotton or castor.

2.5. The level of pulses production at the end of 1979-80 was 3.72 lakh tonnes. Achievement at the end of 1984-85 is 5.37 lakh tonnes. The Seventh Plan target is 5.50 lakh tonnes of pulses production.

Oil seeds Production

2.6. The bulk of vegetable oil production is derived from cultivated oil seeds, namely groundnut, mustard, sesamum and sunflower. Out of these, groundnut is

the major oil seeds crop. It has been recognised that besides making efforts for raising the production of major oilseed crops in potential areas, concentrated attention has to be focussed on the development of new areas. Accordingly, a special project for increasing the groundnut production in Gujarat (1980-84) was implemented.

2.7. Some of the measures to increase oil seeds production include :—

(i) increasing the area under summer groundnut; (ii) increasing the area in kharif season; (iii) increasing the area and production in traditional and non-traditional areas (iv) new improved variety for groundnut has been released from April, 1983.

2.8. National Oilseeds and Vegetable Oils Development Board Act, 1983 and the Vegetable Oilseeds Act, 1983 passed by the Parliament in August, 1983, are expected to help in the integrated development of oilseeds and the vegetable oils industry in the country.

2.9. Oilseeds production at the end of 1979-80 was 22.44 lakh tonnes and 22.14 lakh tonnes in 1984-85. Seventh Plan target is to achieve oil seeds production of 28.40 lakh tonnes at the end of 1989-90.

2.10. The programmes to raise level of production of pulses and vegetable oilseeds mainly cover the following aspects :—

- To increase the areas under Hybrid/HYV programmes.
- To optimise use and availability of main inputs viz. seeds, fertilizers, insecticides and irrigation.
- To increase the production of groundnut by using premonsoon irrigation, supplementary irrigation, closer spacing, summer cropping, inter furrow method of sowing for moisture conservation and extending the area in non-traditional area.
- To increase production of pulses by cultivating them as mixed crops with other crops like castor and cotton, expanding the area under short duration varieties like green gram during summer season after harvest of wheat crop.
- Training of farmers will be improved through strengthening Farmers Training Centres.
- Integrated pest management programme for groundnut and pulses will be implemented to protect the crops from pest damages and thereby enhance the production of each crop.

Point 3 : Strengthen and expand coverage of integrated rural development and national rural employment programmes

(a) Integrated Rural Development Programme

3.1. The Integrated Rural Development Programme (IRDP) was launched in 1978-79, with the objective of raising the poorest families in the rural areas above the poverty line by providing them income generating assets and access to credits and other inputs. The beneficiaries under this programme are being assisted in utilising productive assets acquired with the subsidy and loans for various rural activities such as dairying, poultry, piggery, sericulture, fisheries, village and cottage industries and trades and services through integrated support by way of credit, technical assistance including training, supply of inputs and marketing facilities.

3.2 Seventh Plan Strategy :

It has been observed that inadequate per household investment has resulted in low economic returns to the beneficiary families and hence the strategy for IRDP for Seventh Plan will be two fold. Firstly those beneficiaries who have not crossed the poverty line will have to be given supplementary dose of assistance. In the first three years this process will be completed. Such beneficiaries will be determined by case to case survey and are expected to be about 60% of 7.10 lakh beneficiaries assisted during Sixth Plan (including 0.85 lakh S. C. families and 1.78 lakh S. T. Families), that is 4.26 lakhs in all.

3.3. The second part of the strategy would be to assist about 3.08 lakh new beneficiaries in the Seventh Plan. Assistance per beneficiary will be about Rs. 6,000 as against of Rs. 3,000 during the Sixth Plan.

3.4. During the Seventh Plan, rural women will be treated as a target group and would be identified and assisted. At least 30% of IRDP beneficiaries from such families of identified groups as are headed by women will be given special attention.

TRYSEM

3.5. One of the important component of IRDP is training of rural youths for self-employment. The Scheme aims at imparting training to rural youths to enable them to start their own venture in the rural area and earn their livelihood.

3.6. The present pattern of fixing blockwise targets would be rationalised to ensure that all these beneficiaries are provided the necessary training. The scope of TRYSEM would be extended to cover wage employment apart from self employment. Special attention would be given to rural artisans and craftsmen.

3.7. During the Sixth Plan, 62948 rural youths have been trained. It is targeted to train 0.44 lakh youths during the Seventh Plan.

3.8. Achievements during Sixth Plan and Programmes for the Seventh Plan can be seen in the Statement shown below :---

Item	1979-80 (Level)	Sixth Plan Achievement (level)	Seventh Plan Target	
			(Level)	Net
Beneficiaries identified	75095	1093122	1478122	385000
Beneficiaries assisted	75095	785414	1093414	308000
SC/ST beneficiaries	..	263658	377658	114000
Youths trained under TRYSEM	..	62948	106548	43,600

National Rural Employment Programme

3.9. National Rural Employment programme aims at providing additional gainful employment for the unemployed and underemployed in the rural areas and at the same time creating durable community assets for strengthening the rural infrastructure which leads to rapid growth of rural economy. The programme replaces the

food for work programme and has been devised with a view to overcoming the weaknesses of the earlier programme and providing a sound base for local rural population to increase their income. It further provides a permanent and scientific foundation for the rural people to build up durable assets. The programme has been started to raise the level of income of rural labour and also stabilise the level of wages of agriculture labour. The selection of works under the programme would be done with the active involvement of panchayat and local population. They would be actively involved in the execution and subsequent maintenance.

3.10. Landless labourers are the most underprivileged and malnourished section of the rural population and they face compounded problems of unemployment or underemployment, low and uncertain income and nutritional deficiencies. Seasonal fluctuations hit them very hard. For providing gainful employment opportunities to such unemployed or underemployed persons, the scheme of NREP has been started during the Sixth Plan under Centrally Sponsored (50 : 50) basis and is proposed to be continued during the Seventh Plan. It is targeted to generate 231.25 lakh mandays during the Seventh Plan.

3.11. Priorities in implementing programme successfully are :—

- Works which are needed to be taken up in areas which are backward and have predominant population of unemployed landless labour particularly SC/ST.
- Works in those pockets in respect of which persistent complaints are received about the existence of the concealed bonded labour.
- Areas identified as low wage pockets

3.12. In preparing Annual Action Plan of Seventh Plan priority will be for :

- Schemes providing infrastructural facilities to IRDP beneficiaries
- Soil conservation and land reclamation works
- Minor Irrigation Works
- Minimum Needs Programme works
- Rural roads
- Schools, Balwadi Buildings, Panchayat Ghars and Community centres

3.13. Achievements during the Sixth Plan and Programme for the Seventh Plan are summarised below :

(Units in lakhs)

Item	Sixth Plan Achievement	Seventh Plan Target
Mandays generated under NREP	504.40	231.25

Rural Landless Employment Guarantee Programme

3.14. RLEGP being entirely centrally sponsored scheme no outlay is proposed in the State sector. However, an outlay of Rs. 74 Crores is expected to be

provided by Central Government during Seventh Plan. This outlay is expected to generate additional employment of about 231.25 lakh mandays during the Seventh Plan. The mandays for NREP and RLEGP have been worked out on the basis of Rs. 16.00 daily average wage rate and 50:50 as ratio of wage component and material component.

Point : 4. Implement agricultural land ceilings, distribute surplus land and complete compilation of land records by removing all administrative and legal obstacles

4.1. Land reforms has been recognised and accepted as an important instrument of economic and social change. The objective of the land reforms policy over the successive plans has been to remove such impediments to agricultural development as arise from the agrarian structure inherited from the past and to eliminate exploitation and social injustice within the agrarian system. Land ceiling, legislation relating to private land holdings exists in the State. With the implementation of these laws, surplus land is taken over and distributed among landless persons particularly those belonging to Scheduled Castes and Scheduled Tribes.

4.2. The revised Ceiling Act which lowered the ceiling on holding came into force in April 1976. A special machinery at district and taluka level was created with a view to finalising the implementation of the provisions of the Act.

4.3. Upto March 1985, under the pre-revised and revised Ceiling Act in all 92772 hectares of land was declared surplus. Out of this possession of 53608 hectares of land was taken of which 38650 hectares of land was finally disposed of to 22277 beneficiaries. 11080 beneficiaries were from S. T. and 7499 were from S. C. A. substantial proportion of the land declared surplus during the period is locked up in litigation, and, therefore not readily available for distribution.

4.4. During the Seventh Plan period the programme will be continued and surplus land which would become available will be distributed to S. C./ S. T. and others according to the provisions of the Act.

Updating Record of Rights

4.5. In order to protect rights of tenants on lands who are in arrears of payment of purchase prices the scheme of giving financial assistance for acquisition of occupancy rights is being implemented.

4.6. Apart from this, a scheme of updating the village record of rights so as to prevent concealed tenants, illegale sales, fragmentation etc. was started. Upto 31-3-1985 in all 12,965 villages were covered in first round and 15936 villages in second round. In addition 6172 villages in Saurashtra area and 948 villages in Kutch district have been covered. In Gujarat the teams have brought 67,560 concealed tenants on records and have listed 285221 tenants in the detailed list. During Seventh Plan, it is proposed to cover 5,500 villages for effective implementation of various land reforms measures.

Point : 5 Review and effectively enforce minimum wages for agricultural labour

5.1. Government has accorded high priority to the implementation of minimum wages in respect of agricultural labour and established a separate office of Rural Labour Commissioner to enforce the Act.

5.2. A Rural Workers Welfare Board has been established to cater to economic Welfare, educational recreational and cultural needs of agriculture labourers. Under the aegis of the Board, Rural Workers Welfare Centres are being opened in villages in a phased manner. Gujarat is the first State in the country to establish such

centres. Such 101 centres have been started functioning. New programme of old age pension for agricultural labourers has been introduced.

5.3 From October, 1982, the minimum wage rate of agricultural labour have been revised from Rs. 5.50 per day and Rs. 2,000/- per annum to Rs. 9.00 per day and Rs. 3,200/- per annum. A time limit for disposal of cases by Labour Commissioner was fixed. A State Level Advisory Committee under the Chairmanship of the Labour Minister has been formed. District Level Committees with District Collectors as Chairman and representatives of agriculturists and agricultural labourers have also been formed.

5.4. At present the provisions of the Minimum Wages Act apply to 21 employments. A number of scheduled employments have a minimum wages linked with cost of living index. A special machinery for effective implementation will be provided during the Seventh Plan.

Point: 6 Rehabilitate Bonded Labour

6.1. Abolition of bonded labour system was taken up as a National Programme and in spirit of Government of India's bonded Labour System (Abolition) Act of 1976 the State Government had identified the bonded labourers in the State. There were 63 identified bonded labourers in the State all of whom were freed. (Out of 63 labourers, 2 labourers were found duplicated in identification list and all the 61 labourers were freed). As per the programme of identification of bonded labourers existing in the State in subsequent years, repeat surveys from time to time have been undertaken and it is assessed that no bonded labour is in existence.

6.2. The programme of rehabilitating the identified and freed labourers is in progress since 1982. By end of the Sixth Five Year Plan, 38 bonded labourers have been rehabilitated out of the total 61 freed bonded labourers. The scheme of rehabilitation of bonded labourers will be continued in the Seventh Plan. Also the Survey work will be continued in order to identify any further incidence of the problem during the Seventh Plan period.

6.3. Under the scheme, the maximum cost of rehabilitating bonded labourers is limited to Rs. 4000/- out of which the State Government provides 50% subsidy. Bank loan is linked to the subsidy amount. The assistance rendered is through creation of income generating fixed assets such as camel cart, bullock cart, milch cattle, hand lorry, sewing machine, goat units, tools and equipment for carpentry etc.

Point. 7 : Accelerate programmes for the development of Scheduled Castes and Tribes

7.1. It has been emphasised in the Constitution of India that the State should promote with special care the educational and economic interests of the weaker sections of the people and in particular Scheduled Castes and Scheduled Tribes and should protect them from social injustice and all forms of exploitation.

Programmes for Scheduled Castes

7.2. The population of Scheduled Castes in the State as per 1981 census is 24.38 lakhs i. e. 7.15% of the total population. Since 1979, a Special component plan for economic development of Scheduled Castes has been initiated as an integral part of the State plan. Emphasis is being laid on programmes of generating more employment and additional income so as to bring the families above the poverty line. The Gujarat Scheduled Castes Economic Development Corporation set up in 1979 has accelerated its activities for the upliftment of Scheduled Castes.

7.3. The Scheduled Castes Economic Development Corporation and Scheduled Tribes Economic Development Corporation is giving subsidy under certain schemes against loans advanced by the nationalised banks for bankable schemes by margin money under D. I. R. schemes. The Backward Class Board is also giving subsidy for milch cattle etc. The arrangement of institutional finance with bank have proved of great utility for families living below poverty line. Stress has been laid on providing incentives for education to Scheduled Castes. As a result of Government efforts the literacy rate for S. C. has improved from 22.46 in 1961 to 39.79 in 1981.

7.4. Details of the Scheduled Castes families assisted through family oriented programme during the Sixth Plan is given below :—

(In lakhs)				
1980—81	1981—82	1982—83	1983—84	1984—85
0.46	0.66	0.87	0.82	0.69

Programmes for Scheduled Tribes :

7.5. The population of Scheduled Tribes in the State as per 1981 census is 48.48 lakhs i. e. 14.22% of the total population,. In order to accelerate the pace of development of the area predominately inhabited by the tribals, Tribal Area -Sub-Plan has been launched. Tribal Area Sub-Plan cover 32 talukas with 50% and above tribal concentration. In addition, 15 pockets of tribal concentration have been covered.

7.6. The State has set up the Tribal Development Corporation in 1972 to participate actively in the process of promoting the economic well being of tribals. The development programmes for tribals are implemented by (1) Tribal Development Commissioner (2) Director of Cottage industries, (3) Rural Development Commissioner (4) Gujarat Tribal Development Corporation and (5) Gujarat Forest Development Corporation.

Educationally, S. T. have benefited from Government policy. Literacy rate in S. T. has improved from 11.69 in 1961 to 21.14 in 1981.

7.7. The details of S. T. families assisted through families oriented programmes in the Sixth Plan is given below :—

(In lakhs)				
1980—81	1981—82	1982—83	1983—84	1984—85
0.75	0.77	0.89	0.85	0.79

Important Measures for Upliftment of Backward Class

7.8. The Government took various important measures during the Sixth Plan for advancement of backward classes are as under :—

- The rate of post metric scholarships are enhanced (Government of India).
- The income limit for pre- S. S. C. Scholarships is raised from Rs. 6,000/- to Rs. 7,200/- per annum.
- The stipends in B. C. hostels and Ashram schools raised from Rs. 75/- to Rs. 100/- per month.
- Assistance for Hostel Building is raised from Rs. 50,000/- to Rs. 1,50,000/-
- Rate of stipends in training cum production centres raised from Rs. 65/- to Rs. 100/- per month.
- The scheme of granting Rs. 7000/- as subsidy and Rs. 8,000/- as interest free loan to medical graduates was introduced. From 1982-83 new scheme giving loan upto Rs. 22,500/- and subsidy upto Rs. 7,500/- to the medical post graduate belonging to S. C. & S. T. for starting their clinics.
- 75 Balwadies for Scheduled Castes and 31 new Balwadies for Scheduled Tribes have been sanctioned.

7.9. Highlights of Programmes proposed during the Seventh Plan are:—

- Every year 10 Ashram Schools are proposed to be upgraded from post basic school to Higher Secondary School with emphasis on science subjects.
- To start 5 Residential Higher Secondary Schools on the lines of Andhra Pradesh Government in each region, Admission to these schools will be for S. C., S. T. and economically backward students on merit basis.
- To give a subsidy of Rs. 1,000/- for repair of oil engine.
- Financial assistant upto Rs. 20,000 to S. T., S. C., & S.E.B.C. to start Pathological laboratory/ Medical store.

7.10. It is envisaged to assist 3.50 lakh S. C. families and 3.54 lakh S. T. families during the course of Seventh Five Year Plan .

Point : 8 : Supply drinking water to all problem Villages.

8.1. The objective of the programme of supply of drinking water to all the identified problem villages .is to ensure year round source of safe drinking water to villages suffering from chronic scarcity or those with unsafe sources of water.

8.2. The ten year period of 1981-90 has been declared by the United Nations as the International water supply and sanitation decade. The decade goal is to provide potable drinking water to the entire rural and urban population and to provide sanitation facilities to 80% of the urban population and 25% of the rural population. Accordingly a 10 year master plan has been prepared.

8.3. A survey was carried out at the instance of central government in 1980. According to this survey 9038 villages were identified as 'No source' village upto 1980. Thereafter 5339 villages have been classified in 'No source' category . This category is increasing due to depletion of water table, ingress of salinity and pollution of water sources due to discharge of industrial effluents. Government has therefore, given highest priority to this programme.

8.4. The objective of the Seventh Plan is to provide drinking water to all remaining problem villages as well as remaining towns and to cover all Class-I cities with underground drainage facilities and to cover as many towns with under ground drainage or low cost sanitation facilities as possible and to make a good start for providing sanitation facilities in rural areas. For Villages having less than 500 population shallow tube-wells fitted with hand pumps on simple dugwells will be provided and for other villages individual piped water-supply schemes will be preferred where source of water supply can be located within economic reach.

8.5. The State Government has set up the Gujarat water Supply and Sewerage Board in the Year 1979, which implements the water supply and sanitation programme in the State. Construction of simple water supply works such as deepening and digging of wells are executed through the agency of District Panchayats. This programme is also being carried out as world Bank Aided project

8.6. During the Seventh Plan the following activities are proposed to be taken up.

Desalination

8.7. On account of long coastal area, there is problem of salinity ingress in some parts of the state including coastal area of saurashtra, Rann of Kutch and Surendranagar district. It is therefore proposed to instal desalination plants at selected locations on experimental -cum- demonstration basis to study the feasibility of their application on large scale basis.

Defluoridation

8.8. In order to control the fluorosis disease due to fluoride infested water in Amreli district defluoridation through 'Nalgonda' technique has been attempted and found to be feasible on the basis of experience in four villages taken up for study on experimental basis Further research to develop and popularise community based defluoridation plants is contemplated. 96 villages of Amreli district have been surveyed and found to be effected with fluoride problem. It is envisaged to cover some of the more severely affected villages by providing community defluoridation plants.

8.9. Achievements at the end of Sixth Plan under rural water supply scheme and programme for Seventh Plan has been summarised below.

Programme	Total Villages	Achievement at the end of 1984-85	Villages remained to be covered at the end of Sixth Plan.
(1) As per Survey of 1980	9038	8212	826
(2) Additional Classified	5339	1165	4174
Total ..	14377	9377	5000

8.10. During the Seventh Plan 5000 villages are targetted to be covered.

Point : 9. Allot House-sites to rural families who are without them and expand programmes for construction assistance to them.

9.1. The problem of housing has assumed urgency due to growth of population and rapid growth of industrialisation. In villages acute shortage of houses is felt on account of rise in population and comparatively stagnant housing activity. Housing inadequacy is a problem of both qualitative and quantitative dimensions.

9.2. In view of the magnitude of the problem the state alone would not be in a position to undertake a massive housing scheme. Co-operation of private sectors and voluntary organisations will be of great help in solving this problem.

9.3. The needs of economically weaker sections and low income groups are to be given priority in utilising the limited resources. In this context there will be greater emphasis in rural housing.

Housesites for Landless Labourers

9.4. The scheme which was introduced during 1972-73, in the central sector, proposes to provide land measuring 100 sq. yards to every landless labourer who has no land of his own and maintains this livelihood through manual labour, including rural craftsman in order of priority to Scheduled castes and Scheduled Tribes and others. The scheme also provides subsidy for development of plots including levelling, fencing, a masonry well for a group approach road, street lights etc.

9.5. About 8.49 lakh beneficiaries have been provided the house-sites, of which 1.75 lakh belongs to SCs and 2.91 lakh belong to S. Ts. by the end of March, 1985.

9.6. It is proposed to provide house-sites to 2.06 lakh beneficiaries during the Seventh Plan.

(b) Assistance for construction of houses on the house-sites allotted.

9.7. Experience has shown that the beneficiaries normally do not have financial resources to construct houses on the plots allotted to them. The State Government has, therefore, introduced a scheme for providing financial assistance to these beneficiaries since 1976. The financial pattern has undergone many changes considering the price rise in building materials. Governmental has changed the cost structure from November, 1983 as under

Details	Amount.
(1) State Government Subsidy	1250
(2) State Government Loan	750
(3) HUDCO/ Bank Loan	2500
(4) District Panchayat Contribution	250
(5) Contribution by beneficiary	250
	<hr/>
	5000

9.8. Till March, 85, construction assistance has been given to 3.40 lakh beneficiaries. Target for Seventh Plan is of 3.07 lakh

Point--10 Improve the environment of slums, implement programmes of house building for economically weaker sections and take measures to arrest unwarranted increase in land prices.

Slum Improvement

10.1 The Environment Improvement of slums scheme envisages improvement of living standard of the people in slum areas. The scheme was introduced in 1972-73 under the central sector, which was transferred to state sector and included as part of Minimum Needs Programme since Fifth Plan.

10.2 During the Sixth Plan, the scope of the scheme has been extended to all areas having Municipal Corporations, Municipalities and Urban Development Authorities. The scheme provides financial assistance at the rate of Rs. 250/- per capita of slum population to local bodies for providing certain essential facilities and services like water supply, drainage and sewerage, community latrines and bathrooms, street lights, road improvement etc. in slum areas.

10.3 The number of slum dwellers living in different slums are more than 15 lakhs. Upto end of Sixth Plan period, 5.05 lakh slum dwellers are covered. It is proposed to cover 2.00 lakh slum dwellers during the Seventh Five Year Plan.

EWS Housing

10.4 A programme of housing for economically weaker sections is operated through the Gujarat Housing Board, Gujarat Slum Clearance Board and Gujarat Rural Housing Board. This programme includes scheme for site and service. HUDCO continues to provide loan assistance to the State Government for the economically weaker sections programme.

10.5 It is envisaged to construct 56400 EWS housing during the Seventh Plan.

10.6 Achievement of different Boards during Sixth Plan and programme of Seventh Plan is as under :

Construction of EWS Houses by		Achievement of Sixth Plan.	Target to Seventh Plan
1.	Gujarat Housing Board.	20286	14000
2.	Gujarat Slum Clearance Board	15097	
3.	Gujarat Rural Housing Board	28221	42400
TOTAL :		63604	56400

Point--11 : Maximise, Power generation, improve the functioning of electricity Authorities and electrify all Villages.

11.1 The pace of development can be maintained only when important basic inputs like power are available, without any constraints. The demand of power in Gujarat is increasing at a fast rate, due to rapid industrial and agricultural growth. Power development in the State is constrained by limited hydro potential and long

distance from coal fields. The state is faced with intermittent power shortages due to rapid increase in demand and also due to certain constraints like power availability ratio of the indigenous plants, fund shortages etc.

11.2 The per capita consumption in Gujarat was only 52 units in 1960-61 which has risen rapidly to 245 units in 1983-84 which is far below the 350 units of per capita consumption in under developed countries and 4 000 to 6000 units in advanced countries.

11.3. The progress achieved since 1960 is summarized in the following statement.

Year	installed capacity	Gen. M units	Villages, electrified	Pumpsets energised.
1960-61	315	546	823	5401
1970-71	879	2976	4087	67052
1979-80	2384	8255	10867	202853
1984-85	3383.5	12312	16135	292387

11.4 The rate of growth achieved during Sixth plan is 5.4 percent. It is planned to achieve 7 percent during Seventh Plan.

11.5 The installed capacity was 2384 M.W. in the beginning Sixth Five Year Plan. Actual achievement during Sixth Five Year Plan is 999 M.W. against target of 1347 M. W. The shortfall is due to slippage of 1 unit of 210 M.W. of wanakbori TPP Extension scheme by 2 months and 100 M.W. less released from Korba STPS.

11.6 Measures to increase the availability of the power include :

- By better utilising the existing generation capacity through renovating the existing units at different power stations so that units work at optimum value.
- By operating the existing units where possible.
- By achieving better availability and PLF by way of planned outages and providing suitably trained personnel for operation and maintenance of the plants.
- By completing on going projects.
- By planning and executing new projects expeditiously.

11.7 It has been estimated that power demand by 1989-90 in Gujarat will be 4038 M.W. Which requires the installed capacity of 7074 M.W. as against 3384 M. W. at the end of March '85. Thus additional installed capacity of 3663.5 M.W. will be required considering the installed capacity of old units which will have to be retired, the additional capacity required to be provided will be 3882. M. W.

The install capacity of power generation is likely to increase from 3383 M. W. at the end of Sixth Plan to 5113 M. W. at the end of Seventh Plan.

11.8 It is proposed to meet the requirements of installed capacity as follows :

—Additional capacity from present on going Projects	1345 M.W.
—Share from Central Projects.	491 M.W.
	<hr/>
	1836 M.W.

11.9 This still leaves a gap of 2046 M. W. Schemes of 4694 M.W. have been sent to CEA and planning Commission for approval.

Village Electrification

11.10 In Gujarat 10867 villages stood electrified at the end of Fifth Plan. It was planned to cover 7408 remaining Villages during Sixth Plan. 5268 Villages have been covered during Sixth Plan. The shortfall is due to two cyclones and floods in November 1982 and June 1983 as a result of which men and materials had to be diverted for the restoration of the extensive damages to lines and transformer centres.

11.11 There are 5367 tribal villages in the State. At the end of Sixth Plan 4060 (76%) villages are covered, leaving a balance of 1307 villages to be covered in Seventh Plan.

Special attention is being paid to electrification of Harijan Bastis during sixth plan 3197 Harijan Bastis have been electrified.

11.12 In all, 2140 villages are programme for electrification during the Seventh Plan period to achieve 100% electrification.

Pump/Tubewell Electrification.

11.13 Against a target of 1,25,000 pumpsets to be electrified during the Sixth plan 89534 wells were electrified at the end of March 1985. During Seventh Plan 1 lakh pumpsets will be energised.

11.14 The electrification of pumpsets is carried out under Non plan schemes financed through NABARD, LIC and other financial institutions.

Conservation of Energy.

11.15 In the context of continued shortage in availability of adequate power, special efforts have been made for the conservation of energy in agricultural and industrial sectors which account as much as 85 percent of the total consumption of electrical energy. Priority in new connections is given to those who are adopting new measures for conservation of energy in agricultural pump-sets.

Non Conventional Energy Sources.

11.16 The impulse given to research and development activities in the field of non conventional energy sources and their exploitation is one of the major events in science and technology. Alternative sources of energy include solar, wind, biological and Geothermal energy programmes. The Gujarat energy Development Agency is set up in June, 1979 to undertake research and development and popularisation of renewable energy sources and energy conservation.

11.17 The research priorities of this Agency include:—

—Studies on rural energy consumption and needs in Gujarat.

—Solar thermal energy applications like solar Cookers, water heating systems, Cold storage etc.

—Wind energy system.

—Energy plantations.

—Bio-gas plants.

—Organic waste as energy sources.

—Combustion devices i.e. Kerosene stoves, wood fired chullas etc.

11.18 G.E.D.A. is also a nodal agency for liason between the State Government agencies, National and International Agencies.

11.19 Achievements in respect of Rural Electrification and Programmes for Seventh Plan are as under:--

Programme	Level of Achievement upto		Seventh Plan Target. (level)
	1979-80	1984--85	
1	2	3	4
Villages Electrified	10867	16135	18275
Pump sets energised in lakhs.	2.03	2.92	3.92

Point-12 Pursue vigorously programme of afforestation social and farm forestry and the development of bio-gas and other alternative energy sources.

Afforestation.

12.1 Gujarat has only about 10.05% of its geographical area under forests, as against the national policy of having a minimum of 33% of land area under forests. In respect of per capita forest area, Gujarat has only 0.06 ha. of forest per capita as against 0.11 ha. of forest per capita for the rest of the country.

Objectives / Strategy

12.2 Besides providing timber and fuelwood the forests yield a wide range of minor forest product which are collected, processed and marketed by the Gujarat State Forest Development Corporation, The forestry sector through the Forest Department and the Gujarat State Forest Development Corporation generates nearly 2.20 crore mandayas of employment to the Tribals and landless workers in the Primary Sector.

12.3 Programmes of a forestation social forestry and farm forestry development have stepped up the development of forestry in the State during Sixth Five Year Plan. A significant increase in distribution of seedlings and plantation has been achi-

eeded and there has been more than 351 per cent increase in the tempo of planting seedlings in the State.

12.4 The thrust of development during the Seventh Plan will be towards efforts at reaching ecological balance, meeting the requirements of fuel wood and fodder of the rural population, employment generation, energy conservation, economic stability of the tribal population.

12.5 In consonance with these objectives the priorities are fixed as under.

- Conservation programmes;
- Community forestry programmes;
- Production programmes ;
- Tribal Welfare Programme

12.6 The overall strategy for development of forestry sector in the State would be to increase tree growth wherever possible both inside and outside the forest areas. The core activity of the programme will be the plantation schemes including conservation measures and protective and productive plantations.

12.7 Development of forestry not only in Gujarat but over the entire country has been a slow process. More stress on forest development was given during Fifth Five Year Plan and there after reasonable outlays were allotted for this sector. Gujarat had a World Bank assisted community forestry project whereby large chunks of un-productive community lands, strips, marginal and sub-marginal agricultural lands and other un productive forests lands were afforested. While till the end of Fifth Five Year Plan, the total afforestation was 2,57,500 ha., during the Sixth Five Year plan period 2,22,400 ha. was afforested.

12.8 Farm forestry saw its peak during the last year of Sixth plan whereby farmers and others planted 29-64 crores seedlings School nurseries, Kissan nurseries and voluntary agencies are playing an important role in tree plantation.

12.9 It has been estimated that more than 20% of the presently cultivated agricultural lands are degraded and really not fit for agriculture. Emphasis will therefore, have to be given to divert these lands for tree farming to increase their productivity and prevent further deterioration. An estimated 18750 ha. of such lands are proposed to be brought under tree cover through the World Bank Assisted Community Forestry Project during the Seventh Plan period.

12.10 To combat the menace of unauthorised removal of forest produce section 61 of the Forest Act has been amended to empower forest officials to confiscate vehicles engaged in unauthorised removal of Government owned forest produce. other measures such as incentive awards to subordinates for meritorious service, establishment of checking nakas, mobile squads, wireless network, etc., will be strengthened.

Plantation Schemes :

12.11 Demand for fuelwood and raw material for paper and other industries has been increasing rapidly. It is imperative to meet this demand in the interest of protection of trees. This can be done by raising suitable fast growing fuel wood and timber species. It is proposed to cover 5,000 ha. during Seventh Plan with fuel wood and small timber plantation

Teak, Khair and Bamboo Plantation :

12.12 The productivity and economic value of India's forests has been one of the lowest. It is necessary to progressively replace poor quality forests by valuable trees. It is proposed to cover 16800 ha. during Seventh Plan.

Irrigated Plantations :

12.13 Under rainfed condition the average production of wood per ha. in Gujarat forests is between 2.5 to 3 tonnes per ha. per annum. With application of irrigation and fertiliser it can be increased to 10 to 15 pe ha. per annum. It is proposed to take up this activity through Gujarat State Forest Development Corporation by obtaining institutiance Finance however the plantation raised in the past will be maintained

Plantation of Minor forest produce and medicine plants :

12.14 It is proposed to raise 930 ha. of MFP Farm during Seventh Plan. It is proposed to raise plantations of important medicinal plants over an area of 385 ha. during the Seventh Plan.

Farm Forestry :

12.15 It is proposed to raise and distribute 100 crores seedlings during the Seventh Plan Efforts will be made to have more seedlings through other programmes NREP and RLEGP, The State would also motivate the public to raise their nurseries

12.16 Target for trees plantation for Seventh Plan is 97.6 crore trees.

Bio-Gas Plants :

12.17 Bio-gas is an important source of renewable energy with proven technology. Realising the urgency and need of conservation, the Government of India has launched the National Bio-gas Development Project.

12.18 Ministry of Energy supports this scheme by way of subsidy, technical assistance and payment of turn key fee etc. Implementing agencies for conducting the training classes of various categories and the total assistance from the Government of India per plant came to Rs. 2,000. State. Government also supports this scheme by way of subsidy according to the capacity of the plant. Considering the State and Central subsidy, S.C. and S.T. gets 2/3% of cost and beneficiary of general category gets 50% support.

12.19 Gujarat Agro Industries Corporation, Gujarat Khadi Gramodyog Board and Gujarat State Fertilizers Co. Ltd., are the major agencies implementing the programme in the State. G.A. I. C. also provides free technical services to owners of bio-gas plants.

12.20 During Sixth Five Year Plan. about 24000 plants were installed against target of 35,000. Reasons for slow progress can be attributed to

—The late starting of the programme *i. e.*, after two years of Sixth Plan.

—Allotment of less cement by Government of India than required.

—Cyclone and heavy rain during 1982-83

12.21 Considering past experience the following arrangements have been made for successful implementation:—

- Large scale training classes of
- Maintaining of buffer stock of steel and cement with the help of Government of India.
- Training classes for housewife on a large scale at village level.
- Payment of Advance subsidy to Banks
- Setting up of a Research and Development unit for adopting the cheaper and durable design of the Gas plant.
- Involvement of other voluntary agencies in the programme.

12.22 It is proposed to construct 54,000 plants during the Seventh Plan.

Point-13 : Promote Family Welfare on a Voluntary basis as a people's movement

13.1 The population of the State which was about 1.63 crores in 1951 went upto 2.67 crores in 1971 and reached to 3.41 crores in 1981. The rapid growth of population in the State had many adverse effects. It has slowed down the per capita income growth and is under cutting economic progress resulting in considerable poverty among the people.

13.2 With a view to limiting the adverse effects, securing the small family norm alleviating the poverty and improving the quality of life population control measures are being taken since 1957 and more particularly after 1966-67.

13.3 During Sixth Plan it was recognised that a package of services would yield better results, birth control measures were integrated with maternity and child care health services, nutrition, minimum needs and programme to improve the quality of life of the people when the nomenclature was changed from family planning to family welfare.

For attaining the objective a strategy to popularise among the public family planning methods like sterilisation, IUDS, oral pills, conventional contraceptives have been adopted in the plans and their acceptance have been made partly voluntary. More and more people have begun to realise the benefit of a small family. The Government's role is to educate people in various methods of contraception, so that they are motivated to accept any one on their own.

13.4 The objective of the programme during the VI plan was to reduce the birth rate to a level of 30 per 1000 population from 35 per thousand (1980) by the terminal year 1984-85.

Role of Voluntary Agencies

13.5 Involvement of voluntary organisations in Family Welfare Programme is very crucial. 68 Family Welfare centres are run by Voluntary agencies in urban area. Government of Gujarat has declared prizes/incentives to voluntary organisation in district/municipal area for best performance.

13.6 Yearwise achievements of the programme are as under:—

Year	Sterilisation	IUD	C.C. users.	Oral pills users.
1980-81	200594	40942	168774	15365
1981-82	237405	45647	164988	16030
1982-83	241519	63127	206310	20383
1983-84	235853	111574	335680	38130
1984-85	256454	214213	460605	60700

13.7 The programme performance during the Sixth Plan has been remarkable. This is indicated by the couple protection rate which was 46.7% as on 31st March 1985.

Seventh Plan

13.8 Having achieved a couple protection rate of 46.7% by 31st March, 1985 the State has set its sight to achieve a birth rate of 21 per thousand and couple protection rate of 60% by the end of Seventh Plan. To achieve above objectives targets for Seventh Plan is fixed as under :

(in lakhs)

Year	Sterilisation	IUD	OP&CC.
1985-86	3-00	2-50	5-46
1986-87	3-00	2-75	5-46
1987-88	3-00	3-25	5-46
1988-89	3-50	3-50	5-46
1989-90	3-50	4-00	5-40
	16-00	16-00	27-30

13.9 For achieving the targets following measures have been proposed:—

—Stengthening State Family Welfare Bureau.

—Add. 1250 sub centres during VIIth Plan making total 6119 rural family Planning sub-centres.

—Revamping of family welfare programme in urban areas.

—Establishment of 50 P.P. units making 95 post partum units in the state.

—At present there are 842 reserved beds for family welfare purpose of which 407 beds are of Government, 347 beds of voluntary agencies and 88 beds of local bodies. It has been proposed to provide 200 additional beds in Seventh Plan.

—At the end of VI Plan there are 25091 health guides additional 6000 health guides are proposed in the Seventh Plan.

—Child benefit scheme, an innovative incentive schemes comprising of (A) to give continuing monetary benefits at the rate of Rs. 50 per month for five years to every couple who undergoes sterilisation with two living children and (B) to benefit those who undergo sterilisation after birth of two daughters, provided the second child is not less than 3 years may be given National Savings certificate of Rs. 10,000 to be encashed after a period of twenty years.

14. Substantially augment universal primary health care facilities and control of leprosy, T. B., and Blindness.

Primary Health Care

14.1. A paramedical System at base level with Primary Health centres and sub-centres have been established in the State Providing a curative, preventive and promotional health services in rural areas. At the end of Sixth Five Year there are 21 Community Health centres, 260 primary Health Centres, 50 Subsidiary Health Centres and 4869 Sub-centres in the State under different programmes.

14.2. To deliver a package of health services i.e. health care services, nutrition and family planning, a multi purpose workers scheme was taken up. At the end of 1984-85 there are 5921 trained multi purpose workers in the State.

14.3. There are 302 and 449 hospitals, and dispensaries in urban areas and rural areas respectively. The bed strength are 11621 in urban hospitals and 5387 in rural hospitals. There are 4 mental hospital with 601 bed capacity.

14.4. As a measure of Social security and Labour Welfare the scheme of Employees State Insurance is operating in the State. At the end of Sixth Plan, a net work of hospitals dispensaries and diagnostic centres have come into existence providing Services for medical sickness dependent, benefits etc. to 6-15 lakh industrial workers.

14.5. There are full fledged public health laboratories at Vadodara and Bhuj and Small Scale laboratory at Palanpur. Municipal corporations of Ahmedabad, Vadodara and Surat have also established medical laboratories. A full fledged vaccine institute for antirabic vaccine started functioning at Vadodara. National Malaria Eradication and national malaria control programmes are also under implementation

National T. B. Programme

14.6. It was estimated that about half of the population of the State (1971 level) was infected with T. B. The National tuberculosis Institute at Bangalore operates this programme. The sheet anchor of the programme is the District Tuberculosis centre. At the end of 1984-85 there are 19 District centres with a Strength of 300 (isolation) beds. T. B. demonstration Training and Research centre was also established at Ahmedabad.

National Leprosy Control Programme

14.7. There is a high incident of leprosy in the districts of Valsad, Surat, Dangs Vadodara, Panchmahals, Junagadh and certain Parts of Jamnagar, Sabarkantha and Rajkot districts. The infrastructure consisting of 10 central units and 380 Survey Education and treatment units were established upto 1984-85.

National programme for prevention of visual impairment and control of blindness

14.8. There is a high incidence of trachoma in Surashtra, North Gujarat and Kutch area. Five hospitals and 210 P. H.C.S. 4 upgraded ophthalmic units, 4 mobile units have been established and are providing the facilities.

14.9. Issues that call for attention.

—Infant mortality rate, death rate and birth rates are highest in the country.

—Inadequacy in health services, Only 23.5% of the villages are having health facilities within the village, 46% of the villages at a distance of 5 kms. and 30.5% of villages at a distance of more than 5 kms.

—Infectious and parasitic diseases, gastroenteritis, measles diarrhoeal diseases and protein calories malnutrition constitute the major causes of infant mortality.

—Majority of maternal deaths are due to anaemia and bleeding during pregnancy.

—Malaria, T. B. Filaria leprosy, Night blindness are major health hazards.

14.10. Programme for Seventh Plan

—Total P.H.C. would be 1000, P. H. Sub centres 6119 and 100 Rural Health centres. (Ayurved) at the end of Seventh Plan.

—The Health Education Bureau and Directorate of Health will be strengthened.

—Public health training institute will be established at Vadodara to provide health education to doctors.

—A 200 bed hospital for orthopedic treatment is to be established.

—Modern communication system in all teaching hospital to be provided.

—A mental health institute will be established.

—20 more beds will be provided in paraplegia centre Ahmedabad and artificial limbs division will be provided.

—Institute of Kidney disease would be strengthened.

—The cardiology institute at Civil hospital will be augmented for treatment of cardiac cases.

—Establish post graduate institute.

—Starting of additional 7 new hospital and 20 dispensaries of Employees State Insurance Scheme and extend the benefit to 20 more centres making total 9.34 lakh beneficiaries.

—In order to achieve higher treatment completion rate for T.B. the short course chemotherapy drug regimen requires to be followed.

—To start culture laboratory at Baroda and Jamnagar for testing the drugs.

—Goitre disease due to iodine deficiency exists in Bharuch and Bulsar district, 37% of the population is affected. Supply of iodated salt and injections will be made.

—Guinea worm eradication programme will be started. Vaccine Institute, Vadora will be expanded.

Point : 15 : Accelerate programme of welfare for women and Children and nutrition programme for pregnant women nursing mothers and children specially in tribal hilly and backward areas.

4.15.1 In spite of expansion of the health infrastructure the knowledge about health and nutrition education and child rearing practices continue to be quite low, particularly in rural areas, It was realized that unless the mother and child are given proper attention regarding their needs of health, education, diet and child rearing, the progress made in other important sectors like industries, irrigation and power etc. would be neglected. After the announcement of Twenty point Programme, women and children welfare programmes which were hitherto not given much priority, special emphasis have been provided A strategy for imparting nutrition, health and welfare education through mass media and other informed channels of communication is planned.

4.15.2 The programme of Integrated child development services formulated and initiated in 1975-76 aims to provide a package of services consisting of (i) supplementary nutrition, (ii) immunisation, (iii) health check up, (iv) referral services, (v) nutrition and health education, (vi) non formal education to children in age group 3-5 years in most backward rural, tribal and urban slum areas.

4.15.3 The aims and objectives of nutrition programme are-

—To improve health status of children in age group of 0-6 year and women in reproductive age belonging to weaker Section of the Society.

—To lay the foundation of proper psychological, physical and social development of the beneficiaries.

—To reduce the incidence of mortality of the children and mothers.

—To enhance the capability of mother to look after the normal health and nutritional needs through proper nutrition and health education under SNP and Nutrition programme.

Child Welfare :

15.4 It is proposed to continue important existing scheme of child welfare which include the services for children in need of care and protection, holiday homes, child welfare programmes etc. New services like 'Foster care schemes' will be taken up to create a healthy society. The programme for providing cottage type homes for destitutes is being implemented in 44 units with 1100 children and 30 more units are proposed for Seventh Plan.

15.5 The mental hygiene clinic is a very useful programme, 2 more such clinics at Vadodara and Rajkot are proposed. It is also proposed to start a programme for eradication of juvenile beggary and vagrancy at Vadodara, Surat, Bhavnagar and Palanpur on the pattern of the existing one at Ahmedabad.

15.6 It is also proposed to link the vocational training component with existing juvenile guidance centres and to establish 20 more centres during Seventh Plan.

Women Welfare

15.7 Besides continuing existing programmes, it is proposed to start 10 more creches, hostel for working women in the backward areas in addition to 3 existing creches. The socioeconomic unit will be extended in backward areas. The women's economic Development Corporation will expand its activities. The Social input programme meant to provide nutritious food to the women living below poverty line in the selected backward and tribal areas will be taken up in additional 30 block over and above existing 2 blocks. Social security measures will be expanded. Mahila mandaes will be activated.

15.8 The Women's Economic Development Corporation, established in 1981, has started new programmes of training and self employment to encourage women to share economic responsibilities in their families.

15.9 Under ICDS benefit was given in 1979-80 to 7.70 lakhs women and children. Corresponding figure by the end of 1984-85 is about 6.55 lakhs through ICDS Blocks. Considering 63 ICDS projects have been established upto 1984-85 the total ICDS projects will reach to 156 at the end of Seventh Five Year Plan. Seventh Plan target is of 7.25 lakh beneficiaries, which will cover total 13.80 lakh beneficiaries at the end to Seventh Plan

15.10 Achievement under Nutrition programme upto Sixth Plan and targets for Seventh Plan are as under :

Number of beneficiaries

(in lakhs)

Item	Achievement 1979-80	1984-85	Seventh Plan Target
1			2
ICDS	7.70	3.64	7.25 (Net)
SNP		2.91	

15.11. It is also proposed to establish a 'State Institute of Nutrition and Child Development during Seventh Five Year Plan.

Point 16. Spread universal elementary education for the 6-14 age group with Special emphasis on the girls and simultaneously involve students and voluntary agencies in programme for removal to Adult illiteracy.

16.1. Article 45 of the Constitution promises free and compulsory education for children in the age group 6-14 by 1960. Despite concerted efforts, enrolment of children in the age group 6-14 reached upto 94% at the end of 1984-85.

16.2. Achievement at the end of 1984-85 is shown below:—

Age Group	(In '000)		
	Boys	Girls	Total
6-10	2759 (126%)	2068 (101%)	4827 (114%)
11-14	902 (71%)	551 (47%)	1453 (60%)
6-14	3661 (107%)	2619 (81%)	6280 (94%)

16.3. It is targeted to achieve 94% coverage in the age group 6-14 by the end of Seventh Plan. It is expected that 16-66 lakh additional children will be enrolled during Seventh Plan. 26650 additional teachers will be required as per norms, and will be appointed during Seventh Plan. Out of 26650 additional teachers 9,000 teachers will be appointed in tribal area. There are 6,000 schools (V-VII Std.) having science kit boxes. 5,000 schools will be covered during Seventh Plan.

16.4. Literacy rate in the tribal area is very low. It is therefore, necessary to give incentives to attract the children to schools. It is proposed to supply free text books and uniforms to these children in Seventh Plan.

16.5. An incentive in the form of foodgrains etc. at an estimated cost. of Rs. 250/- per annum will be given to the parents of the pupils with regular attendance. A scheme of giving Cash awards of Rs. 100/- per student every year to the first five talented girls of S.C., S.T., and O.B.C. in order of merit in the annual examination of Std. IV of each talukas is in operation and will be continued in Seventh Plan.

16.6. In order to accelerate the enrolment of girls under the programme and give recognition to excellence in performance for spread of girls education at elementary level, a scheme of incentives/awards has been in operation. A scheme of Special incentives for girls for regular attendance will be implemented during Seventh Plan.

16.7. Coaching classes for weaker student at the end of Std. III in summer vacation will be started to enable them to appear for re-examination to reduce the number of drop out students.

12 residential schools in remote areas of tribal district will be started.

Adult Education

16.8. Government has given high priority to the removal of illiteracy by including it in the MNP of Sixth Five Year Plan. According to 1981 census nearly 192.00

lakhs illiterate persons are there, out of which 47.85 lakhs are from age group 15-35, projected population of this age group at the end of 1984-85 will be 53.21 lakhs. It is envisaged to cover 24.00 lakh adults during Seventh Plan. The involvement of voluntary agencies is emphasised in almost all the adult education programmes.

16.9. Achievement of Adult Education upto 1984-85, and programme for Seventh Plan is as under:—

Adult literacy in age group (15—35)

(in '000)

1979—80 Level	1984—85 Level	Seventh Plan Level	Net
869	2829	5229	2400

Point 17. Expansion of public distribution systems, supply of text books and exercise books to students on priority basis and promotion of a strong consumer protection movement.

17.1. Civil supplies corporation started its activities from October, 1980. Steps towards strengthening the Public distribution system were taken. Controller of weights and measures has been put under control of Civil Supplies Department. To assist consumer protection agencies, telex facilities have been provided at State head quarter and district head quarters for faster flow of information and flying squads under the enforcement branch of the Directorate of Civil Supplies, have been provided. Separate branch was created for dealing with detention cases of persons who indulged in black marketing, hoarding etc.

17.2. The Corporation started its activities with issued share capital of Rs. 40 lakhs which is at present Rs. 3.72 crores. The corporation has shown significant progress in achieving its goal. The turnover of the corporation was 8034 lakh in 1980-81 and reached to 14966 lakhs in 1982-83.

17.3. Gujarat has strong public distribution system with 10477 fair price shops by end of sixth Five Year Plan. Storage capacity available with Civil Supplies Corporation was 1.92 lakh tonnes at the beginning of Sixth Five Year Plan and reached to 2.12 lakh tonnes at the end of Sixth Five Year Plan.

17.4. The Corporation runs 12 mobile shops in remote areas, and markets essential articles such as Groundnut oil, Vanaspati, Janta Cloth and products of Khadi and village industries. The corporation is running departmental stores called KALP-ATARU in Gandhinagar, Ahmedabad and Himatnagar. The Corporation handles distribution of notebooks to students. Essential items are being supplied on an experimental basis to students hostels at Ahmedabad, Surat, Vadodara & Rajkot.

Point 18 : Liberalise investment procedure and stream line industrial policies to ensure timely completion of Projects. Give handicrafts handlooms, small and village industries all facilities to grow and to update their technology.

Liberalisation of investment procedure and streamlining of industrial policies.

18.1. The phenomenal growth of industrial activity in Gujarat in recent years is supported by the state Govt's Progressive policies. These are administered by

the Industries Commissioner and the District Industries Centre in each district. In addition there is a corporate network consisting of the Gujarat Industrial Development Corporation, Gujarat State Finance Corporation, Gujarat Industrial Investment Corporation and Gujarat State Investment Corporation which aim at simplifying and making attractive the investment climate of Gujarat.

18.2. Certain new developments aimed at liberalisation of the investment climate have recently emerged from Government of India. The Industries Development and Regulation Act 1951 has been amended to grant specific powers to the Central Government to define "Small Scale Undertaking" and "Small Scale and Ancillary Undertaking". Under these clauses the Government has recently raised the financial limit for Small scale Industrial Units from Rs. 20 lakhs to Rs. 35 lakhs. and for ancilleries from Rs. 25 lakhs to Rs. 45 lakhs. This will enable a larger number of small units to gain the permissible benefits of small scale units. Another welcome development has been the recent Notification of 1-4-85 raising the MRTP limit to Rs. 100 crores with immediate effect.

18.3. With a view to further encouraging industrial growth the Government of India has reviewed the existing list of 1975-76 items which require licence for manufacture. This list has now been further liberalised by the Notification of 19-3-85 to include a wide range of electronic and engineering goods.

Villages and Small Scale Industries

18.4. In order to give protection from large scale units, 872 items have been reserved for exclusive production in the small sector by the Government of India. The Industries Act (D&R) has also been recently amended by Government of India to overcome prevailing uncertainty and to enable it to reserve certain items for exclusive manufacture in the small scale sector. There were 43682 small scale industrial units registered at the end of 1980 which reached to 62693 units by 31st March, 1984.

18.5. Villages and cottage industries play an important role in providing larger employment opportunities in rural areas and particularly to the weaker sections and backward people. This has therefore been given high priority in the Seventh Plan.

18.6. Handloom weaving is the main activity of the village artisans and its employment potential is next to agriculture in rural areas. A majority of the weavers engaged in this trade belong to Scheduled Castes. As per survey done in 1977, there were 23,741 handlooms in the state of which 9,450 looms have been covered under co-operative sector, 4,474 under scheme of Intensive Handloom Development project and 7,508 looms were covered by Khadi & Village Board. There were 240 weavers societies covering 9,450 Handlooms owned by 27,600 weavers as on 31st March, 1984

18.7. The financial assistance to Handloom industrial co-operative societies is under new revised package scheme. The existing scheme will be continued in the Seventh Plan.

18.8. The Handloom Development Corporation set up in 1979 is implementing the Intensive Development project scheme and has covered 4,474 looms upto 1984. The object of the scheme is to supply raw material, equipment and working capital and to take back finished goods to ensure better returns to the weavers not covered under co-operative sector. The Corporation is producing Janta and Non-Janta Cloth under this scheme.

18.9. It is proposed to cover 916 societies and 30,815 individual weavers generating employment to nearly 70,000 persons. It is also proposed to activate 4,800 dormant handlooms and to cover 1,000 handlooms under Co-operatives.

Handicrafts

18.10. The Gujarat State Handicrafts and Handlooms Development Corporation was established in 1973 with an aim to promote, revive and develop the Handicrafts of Gujarat. It also provides employment to poor artisans. The Corporation has set up production centres, introduced new designs and patterns and helped a large number of artisans to project their products through exhibitions. The Corporation has set up a museum at Shamlaji and will open one museum at Gandhinagar.

Gujarat State Khadi and Village Industries Board.

18.11. Deserving institutions and individuals are being guided by the Khadi Board. The Board tries to improve the quality of products and arrange for proper marketing. There are 133 institutions, 147 societies and 8054 individuals who are getting benefits of Khadi and Village industries. There are 250 Khadi Bhandars and 235 villages industries sales depots. 12,000 artisans will be provided employment during Seventh Plan.

Point 19 : Continue strict action against smugglers, hoarders and tax evaders and check black money.

19.1. The Government has intensified its action against antisocial elements like speculators, hoarders, black markets as well as smugglers. The administration of various administrative as well as legislative measures such as the Essential Commodities Act, the prevention of Black Marketing and Maintenance of Essential Supplies Act. etc. are tightened to curb tax avoidance and tax evasion and the use of unaccounted funds. In 1980, a plan was formulated for pursuing anti-smuggling and anti-tax-evasion measures with added vigour.

19.2. The Government of Gujarat has been especially vigilant with regard to the movement of smuggled property. Deterrent action is constantly being taken against them and all special legislations with regard to smugglers property are strictly enforced. As on 31st October 1984 total 6 persons were under detention.

19.3. Tax collection administration has been strengthened and all attempts are made for recovery of taxes. Measures for checking evasion of sales tax was taken through checking of 1157 business places. Books of accounts were seized in 438 cases. Assessment was finalised raising additional demand of Rs. 157.96 lakhs.

19.4. A commissionerate of Entertainment tax set up in 1981, has helped to increase income from entertainment tax, as can be seen from the table below.

Year	No. of Cinema Theatre.	Receipt of Entertainment Tax in crores. (Rs).
1980—81	537	21.03
1981—82	542	28.06
1982—83	561	31.91
1983—84	567	38.13
1984—85	598	39.92

19.5. During 1984-85, amount of tax evasion detected was Rs. 50.58 lakh by, surprise inspection of 14733 theatres.

19.6. Under the Essential Commodities Act, 1955 the work done during 1983 and 1984 is as under :—

	1983	1984
No. of raids	3604	3321
No. of Inspection	62383	56683
Value of commodities Seized (in crore Rs.)	15.85	7.02
Value of commodities confiscated (Rs. in lakhs)	17.70	24.52
No. of cases resulting in conviction	18	6

20.00 Improve the working of the Public Enterprises by increasing efficiency ,capacity utilization and generation of Internal Resources.

20.1. A Bureau of Public Sector Enterprises has been set up in the State to monitor periodically the performance and help analyse specific issues relating to productivity and profitability in depth.

20.2. At the end of March, 1983 Gujarat had 50 public Sector Enterprises, 12 were statutory undertakings and the remaining 38 were Government companies established under the companies Act.

20.3. The growth in the number of Public Enterprises over the five years since 1978-79 is indicated by the following data :—

Date	Number of Government Companies	Number of statutory under takings	Total number of public Enterprises
31-3-1979	30	9	39
31-3-1980	32	11	43
31-3-1981	35	11	46
31-3-1982	37	11	48
31-3-1983	38	12	50
31-3-1984	38	12	50

Investment by State Government and Total Resources

20.4. The figures of investment made by the State Government in public Enterprises and of the Total Resources of the Enterprises at the end of each of the five years are given below :—

Date	Total investment by State Government (Rs. in crores)	Total Resources (Rs. in crores)	Percentage of State Government Investment to total resources
31-3-1979	493.60	1195.50	41.29
31-3-1980	606.83 (22.94)	1443.18 (20.72)	42.04
31-3-1981	757.53 (24.83)	1755.68 (21.65)	43.15
31-3-1982	872.13 (15.13)	2126.08 (21.10)	41.02
31-3-1983	1199.09 (37.49)	2662.57 (25.23)	45.03
31-3-1984	1331.20 (11.02)	2928.19 (11.00)	45.46

Note.—(1) Figures in brackets denote percentage increase over previous year.

(2) Figures in respect of Gujarat State Civil Supplies Corporation Ltd. and Gujarat Scheduled Castes Economic Development Corporation Ltd. for 31-3-1982 and 31-3-1983 and Gujarat Water Supply and Sewerage Board in the figures for 31st March, 1983 have not been included as they are not available. Figures in respect of Gujarat State Civil Supplies Corporation Ltd., Gujarat Scheduled Caste Economic Development Corporation Ltd., Gujarat Water Supply and Sewerage Board and Gujarat Maritime Board have not been included in the figures for 31st March, 1984 as they are not available.

4.20.5. Financial Results : The Consolidated financial results of the working of Enterprises which were in operation for which information is available are shown below :—

	1980-81	1981-82	1982-83	1983-84
1. Net worth (Rs. in crores)	153.77	173.89	231.19	308.34
2. Capital employed (Rs. in crores)	1445.45	1286.87	1456.11	1620.41
3. Turn over/Total Income (Rs. in crores)	526.08	757.68	269.77	1005.43
4. Return on capital employed (Rs. in crores)	13.31	54.04	91.20	121.70
5. Net profit after income tax (Rs. in crores)	(—) 67.70	(—) 39.82	(—) 9.05	11.12

	1980-81	1981-82	1982-83	1983-84
6. Percentage of turn over on capital employed	36.40	58.86	59.73	62.07
7. Percentage of return capital employed	0.92	4.19	6.26	7.51
8. Percentage of Net profit after income tax on net worth	(—) 44.03	(—) 22.90	(—) 3.92	3.59

20.6. From the point of view of profitability there was considerable improvement in 1982-83. In 1980-81 the aggregate loss (after tax) of all Enterprises was Rs. 68.92 crores and in 1981-82 it was Rs. 38.99 crores, 1982-83 witnessed a reduction in loss to Rs. 9.05 crores. Where as in 1983-84 there was profit of Rs. 11.12 crores.

20.7. The total combined net loss of two public utilities viz. Gujarat Electricity Board (profit of Rs. 13.84 crores) and Gujarat State Road Transport Corporation (loss of Rs. (—) 5.28 crores shows an aggregate profit of Rs. 8.56 crores). If this amount is excluded from the figures of overall profit of Rs. 11.12 crores, there will be net profit of Rs. 2.56 crores for the remaining public Enterprises.

20.8. Gujarat Electricity Board and Gujarat State Road Transport Corporation occupy a prime position amongst the public Enterprises in the State. This can be seen from the following data:—

	Gujarat Electricity Board	Gujarat State Road Transport Corporation	Other Enterprises	Total
1	2	3	4	5
1. Financial Resources (%) (31-3-1984)	60.44	4.22	36.34	100.00
2. Investment of State Government (%) (31-3-1984)	72.70	7.94	19.36	100.00
3. Capital employed (%) (31-3-1984)	59.77	2.94	37.29	100.00
4. Turnover (%) (1983-84)	50.11	22.30	27.59	100.00
5. Profit (+) loss (—) (Rs. in crores)	(+) 13.84	(—) 5.27	(+) 2.56	(+)11.12

Internal Resources :

20.9. A summary of internal resources generated by public Enterprises during the year 1978-79 to 1983-84 is indicated below :—

(Rs. in crores)

Year	Profit after Tax but before Investment Allowance Reserve		Depreciation	Total internal Resources (2 - 3)
1	2		3	4
1978—79	(—)	5.02	29.67	24.65
1979—80	(—)	14.20	35.53	21.33
1980—81	(—)	68.92	42.50	(—)26.42
1981—82	(—)	38.99	48.04	9.05
1982—83	(—)	9.05	54.08	45.03
1983—84		11.12	60.78	71.90.

STATEMENT—I

20 Point Programme-Seventh Five Year Plan Outlays

(Rs. in lakh)

Point No. 1	ITEM 2	Seventh Plan Outlay 3
1.	Irrigation (Major, Medium and Minor) and dry land agriculture	167876.04
2.	Production of pulses and oilseeds	109.90
3.	Integrated Rural Development and National Rural Employment Programme	8984.00
4.	Land Reforms	255.00
5.	Enforcement of Minimum Wages for Agricultural Labour	110.00
6.	Rehabilitation of Bonded labour	2.50
7.	Accelerated programmes for development of Scheduled Castes and Scheduled Tribes	**27682.00
8.	Supply of drinking water to problem villages	6233.00
9.	Rural house sites cum house construction	6450.00
10.	Environmental Improvement of slums and EWS houses	3513.00
11.	Power	146650.00
12.	Afforestation, Social and Farm forestry and development of Bio-Gas	11408.05
13.	Family Planning	— Central Sector —
14.	Universal primary health care, control of leprosy, T. B. and Blindness	5166.88
15.	Accelerated programme of Welfare for Women and Children and Nutrition	4730.00
16.	Elementary education for age group 6-14 and removal of adult illiteracy	5837.00
17.	Public distribution system	436.00
18.	Village and small Industries	14361.00
TOTAL		409804.37

**This includes (i) outlays for programmes for scheduled caste and scheduled tribes under Welfare of Backward Classes sub-sector and (ii) the flow to TASP and Special Component Plan from the State Plan. However this excludes such flows for the programmes covered under points other than point No. 7.

STATEMENT : II

20 Point Programme-Physical Targets

Point No.	Item	Unit	Seventh plan
			(1985-90) Target.
1.	Additional Irrigation potential	Lakh Hect.	5.40
2.	(a) Pulses-production	Lakh Tonnes	5.50
	(b) Oil seeds-production	Lakh Tonnes	28.40
3.	A. IRDP-Families benefited	No. in Lakh	3.08
	B. NREP-Employment in Mandays	No. in Lakh	231.25
	C. RLEGP-Employment in Mandays	No. in Lakh	231.25
4.	Surplus Land distribution	Hect.	N.A.
7.	A. S.C. Families to be assisted	No.	3,50,000
	B. S.T. Families to be assisted	No.	3,54,500
8.	Drinking Water-problem village to be covered.	No.	5,000
9.	A. Housesites allotment	No. in Lakh	2.06
	B. Construction assistance	No. in Lakh	3.07
10.	A. Slum population	No. in Lakh	2.00
	B. EWS houses constructed	No.	56,400
	Rural Electrification :		
11.	A. Villages Electrification	No.	2,140
	B. Pumpsets Energisation	No.	1,00,000
12.	A. Trees plantation (including farm forestry)	No. in crores	97.6
	B. Bio-Gas plants-incl. KVIC	No.	54,000
13.	Sterilization	No. in '000	1,600
14.	A. Primary Health Centre (Const).	No.	690
	B. Sub-Centres	No.	1,250
15.	ICDS Blocks	No.	93
16.	A. Enrolment in Age group 6-14.	No. in '000	1,666
	B. Adult literacy	No. in '000	2400
18.	Small Scale Unit	No.	N. A.

PROGRAMMES FOR BACKWARD AREAS AND WEAKER SECTIONS

5.1. Introductory

5.1.1. Reduction of disparities in the levels of development as between different areas and different sections of the society is an important objective of planning. In the case of the less developed areas appropriate growth strategies have to be evolved based on the identification of the lead sector of development, which in turn, is related to agroclimatic conditions, natural resource endowments and techno-economic and social constraints. Equally important is the provision of welfare schemes meant to cater to the backward classes and vulnerable sections of the society such as the small and marginal farmers, landless agricultural labourers and rural artisans, etc. It would be necessary to evolve specific programmes for the welfare of these groups on the basis of a proper identification of their levels of development and the scope for raising their standards of living by way of income supplementation through fruitful economic activities. Efforts in the past at improving the economy of the backward areas and the levels of the living of the weaker sections have yielded results but the pace of progress has not been sufficiently fast nor has the spread of benefits been always even.

5.1.2. On 31st December, 1983 the State Government constituted a High Level Committee under the chairmanship of Dr. I. G. Patel to study the problems of backwardness of the State and identify backward talukas/areas considering the present level of development in different spheres and to recommend suitable strategy, approach and programmes for removing the backwardness of such talukas/areas. The report of this Committee has been received and is under active consideration of the Government.

5.1.3. Each backward area poses a unique problem based on combination of various factors. Therefore, the development of such areas becomes a complex exercise in spatial planning. The adoption of a suitable location specific strategy based on a proper diagnosis of the causes of backwardness and the assessment of the potential for development in each area, therefore, becomes essential. So far, special programmes have been initiated for speeding up the pace of development of mainly the tribal areas and drought prone tracts. The central schemes for industrially backward districts provide for concessional finance from the financial institutions and cash subsidy subject to prescribed ceiling for industries in selected districts. The proposals for the Seventh Plan 1985-90 not only provides for accelerating the implementation of the Tribal Area Sub-Plan, the Integrated Rural Development Programme and National Rural Employment Programme but also provides for new innovative programmes for the rapid development of backward areas of the State.

5.1.4. Gujarat has a large population of backward classes, the Scheduled Castes and the Scheduled Tribes constitute respectively 7.15% and 14.22% of the total population according to census 1981. The population of Nomadic and Denotified Tribes is estimated around 10 lakhs. In addition, the State has a large number of around 50 lakhs of socially and economically backward classes apart from the small and marginal farmers, landless agricultural labourers constituting vast segment of the rural poor, who need special attention. The problems of the urban slum dwellers and the urban poor in general also demand special consideration. Special programmes initiated for the welfare of distinct sections of the under privileged groups have been under implementation having regard to the needs of individual sections. Mention may be made of the programmes for the scheduled castes and scheduled tribes, the special programmes for the small and marginal farmers and a variety of social welfare measures aimed generally at the weaker sections. Apart

from continuing such programmes during 1985-90 several programmes for improving the socio-economic conditions of the weaker sections are also proposed to be accelerated. The principal amongst them are 20 point economic programme, family oriented programme both for the urban and rural poor, strengthening of rural workers welfare board, social inputs programmes for women and children, housing for rural and urban poor as well as the Integrated Rural Development programme which is designed to help large segments of the poor. The programme for the socially and educationally backward classes and the economically backward classes as well as disabled persons have also been provided. Another significant step is the acceleration of Special Component Plan for the Scheduled Castes. The new thrust on employment generation would not only increase the tempo of economic activities in backward areas, but would also bring about a rise in the income level of the backward and the weaker sections of the people. Apart from the expansion of the employment generating programmes, like minor irrigation, animal husbandry and dairy, soil conservation, afforestation and roads, the proposals for Seventh Plan provide for other new programmes also. It is also proposed to accelerate the tempo of progress under Rural Landless Employment Guarantee Programme announced by the Prime Minister in August, 1983. All such programmes aim at upgrading the levels of social consumption of the poor and increasing their income.

5.1.5. The major thrust of the programme for Seventh Five Year Plan 1985-90, will, in the circumstances, have to be on an optimal programme mix that will, on the one hand assimilate the gains achieved through the programmes under implementation so far and on the other hand, cover new ground in relation to specific needs.

5.1.6. The main programmes benefitting the backward areas and the weaker sections have been summarised below :—

5.2. Tribal Area Sub-Plan 1985-90

5.2.1. The Tribal Area Sub-Plan covers 32 talukas with 50% and above tribal concentration. In addition, 15 pockets of tribal concentrations have been included in the Tribal Area Sub-Plan. A list of the 32 talukas and the 15 pockets is given in Appendix-'A'. The tribal area sub-plan is spread over 8 districts with 9 Integrated Tribal Development Projects. The total area covered under the sub-plan is 27,189 square kms. constituting 13.87% of the total area of the State. Government has initiated an exercise to identify Tribal Areas/Talukas based on the population of Scheduled Tribes according to census 1981 and will implement the programmes under the Tribal Area Sub-Plan after getting the detailed guidelines from the Government of India.

5.2.2. The long term objectives of the Tribal Area Sub-Plan are the following;

- to narrow the gap between the levels of the development of this area and the other areas in the State.
- to create in the economic field impact of an order which will enable 50 percent of scheduled tribe families to cross the poverty line.
- to raise the productivity level in the fields of agriculture, animal husbandry, forestry, cottage and small industries etc.
- to raise the level of education.
- to meet the deficiencies of the economic and social infrastructure of the economy of the tribal areas.

—to provide for specific investments needed to build up the natural resources potential of land and forest and for promoting, fostering and developing an industrial base for the areas ; and

—to safeguard against exploitation of tribal people by vested interests in land, trade and industries, marketing of minor forests and agricultural produces to ensure accrual of benefits of development to tribals to the fullest extent, preventing alienation of their land and to free them from indebtedness.

5.2.3. Elimination of exploitation in all forms and speeding up of the process of socio-economic development is the primary concern of the tribal area sub-plan. Steps have been taken continuously to save the tribals from exploitation in respect of land alienation, forest labour and in securing their essential consumption needs. The gains of the protective measures initiated earlier are being consolidated. A programme of covering about 50% of tribal families under economic development programme has been designed to enable these families to raise their level of income.

5.2.4. The tribal area sub-plan during Seventh Plan 1985-90 comprises of following elements :

- Flow of funds from State Plan Sectors ;
- Special Central Assistance ;
- Programme of Central Ministeries/Centrally Sponsored;
- Institutional Finance.

5.2.5. An Outlay of Rs. 540.96 crores is expected to flow in the tribal area sub-plan from the State Plan of Rs. 6000 crores during Seventh Plan 1985-90. Rs. 64.33 crores are assumed Special Central Assistance. Thus, the total tribal area sub-Plan including Special Central Assistance would be of the size of Rs. 605.29 crores.

5.2.6. Sectoral outlays proposed for Seventh Five Year Plan 1985-90 are given in the following table :

(Rs. in crores)		
Sr. No.	Major Head of Development	Flow from State Plan
1	2	3
1.	Agriculture and Allied Programmes	90.52
2.	Rural Development	26.53
3.	Co-operation	15.29
4.	Water Development	79.97
5.	Power	18.58
6.	Industries and Mines	22.82
7.	Transport and Communications	42.00
8.	Social and Community Services	123.57
9.	Economic Services	1.25
10.	Decentralised District Planning	37.93
11.	Mid-Day Meal	82.50
TOTAL		540.96

5.2.7. Emphasis has been laid on family oriented programmes and infrastructure development. Due priority has been accorded to the employment and income generating programmes.

5.2.8. The bulk of outlay flowing from the State Sector is proposed to be provided for agricultural and allied programmes including irrigation, roads and social services. Schemes have been proposed also for the primitive groups. Specific attention will be paid to the needs of the scattered tribal population residing outside the sub-plan area through suitable schemes in the general plan.

5.2.9. Within the outlay for the sub-plan a nucleus budget is also sanctioned every year which is placed at the disposal of the Project Administrator. This is being done in order to meet the specific local requirements of the project areas. The system of providing a nucleus budget will be continued during the period 1985-90. It is also expected that tribal areas will continue to get benefit of programmes being undertaken under "Decentralised District Planning" both under discretionary and incentive outlay during the period of Seventh Five Year Plan.

5.2.10. Special projects for the welfare of tribals have been prepared to attract substantial institutional finance from the public sector undertakings, banks etc. Substantial institutional finance is expected for the implementation of programmes under agriculture supporting services, co-operation and industries.

5.2.11. The State has set up a Tribal Development Corporation in October, 1972 to participate actively in the process of promoting the economic well being of the tribals. According to provisions of the Act, the State Government has to provide capital contribution and grant towards administrative expenditure. Adequate provision is provided in the State's Seventh Plan 1985-90. The Corporation provides soft loans to tribal co-operatives. A few schemes, pertaining to co-operation, social welfare and cottage and small industries aiming at tribal welfare have been transferred to the Corporation. The Corporation has also initiated the schemes for differential rate of interest. The activities of the Corporation are proposed to be accelerated during the period of Seventh Five Year Plan.

5.2.12. A number of measures for saving the tribals from the exploitation of vested interests are being taken. The plan also provides for schemes like protection against unauthorised alienation of land held by tribals. Mention may also be made of the schemes for grant of subsidy for payment of interest on loans obtained from Land Development Banks for purchase of occupancy rights under B. T. and A. L. Act, 1958. During Seventh Plan period, target group oriented approach is proposed to be continued for raising the income level of the tribals living below the poverty line and number of measures have been proposed for the upliftment and welfare of the tribals.

5.3. Drought Prone Area Programme

5.3.1. The Centrally sponsored DPAP is being implemented in 42 talukas of districts of Ahmedabad, Amreli, Bhavnagar, Jamnagar, Kachchh, Panchmahals, Rajkot and Surendranagar during the Sixth Plan. During the Seventh Plan Lodhika Taluka of Rajkot has been included under DPAP raising the number of talukas to 43.

5.3.2. The main objective of these programmes is integrated development of the drought prone and desert prone areas. It aims at providing the optimum utilisation of land, water and livestock resources, stabilisation of the income of weaker sections of the society and minimisation of the impact of drought on agricultural production and the income of rural poor. Besides, the programme envisages :

—reducing the severity of the impact of drought.

—stabilisation of the income of the people particularly weaker section of the society.

—restoration of ecological balance.

5.3.3. In the light of these objectives development of the Drought Prone Area Programme will consist of the following major components :

—Treatment of land on watershed basis alongwith integration of dry farming practices and proper land use, for soil and moisture conservation and water harvesting.

—Extension of the vegetative cover by afforestation and improvement of pasture.

—Efficient optimum use of water by improving efficiency of delivery of existing irrigation systems, and creating new irrigation potential including percolation tanks, etc.

—Scientific dry farming practices to be transferred to farmers through existing extension services.

—Live-stock development.

—To broaden resource base and infrastructure which would directly stimulate providing of asset and its efficient use by target group living below poverty line.

5.3.4. In order to achieve the above objectives, special emphasis has been laid on planning, co-ordination and implementation of integrated area approach to have desired impact and thrust in area. Further it is proposed to strengthen administrative machinery at State and district levels.

5.3.5. In the Sixth Plan an expenditure of Rs. 3075.25 lakhs comprising of the state and central share was incurred. For the Seventh Five Year Plan 1985-90, an outlay Rs. 1575.00 lakhs has been provided for 43 blocks against which equal Central share is anticipated.

5.3.6. Under this programme, it is proposed to create additional irrigation potential in 4.18 thousand hectares, soil conservation works in 26.20 thousand hectares and afforestation of plantations in 24.75 thousand hectares during the period of Seventh Plan 1985-90.

5.4 Desert Development Programme

5.4.1. The DDP is in operation in 6 talukas of Banaskantha district and 2 talukas of Mahesana district. The programme was introduced in the State in 1977-78 and was being implemented in 11 talukas of the State upto 1981-82. From 1982-83, DDP has been discontinued in 3 talukas of Kachchh district. Thus, the programme has been implemented in eight talukas of the State in the latter half of the Sixth Plan. During the Seventh Plan, one more taluka is covered under DDP. Keeping in view the objectives for the programme, it is proposed to take up programmes like minor irrigation, soil and water conservation, afforestation and pasture development, fodder development, animal husbandry etc. during the Seventh Plan. An outlay of Rs. 256.00 lakhs for the Seventh Plan 1985-90 is provided. Under this programme, it is proposed to drill 5 tubewells, construct 75 percolation tanks, to undertake afforestation and pasture development, plantations in 5.80 thousand hectares and soil conservation works in 8.40 thousand hectares during the period of Seventh Five Year Plan 1985-90.

5.5 Coastal Areas

5.5.1 The State has a long coastline of around 1600 kms. Many areas adjoining the coastline suffer from the problem of salinity ingress resulting in permanent damage to agricultural land and accentuating the problem of drinking water supply. Several coastal areas also suffer from infrastructural and other deficiencies which come in the way of rapid development of these areas. There is also the problem of water pollution. Thus, some of the problems of the coastal areas call for specific attention. A programme of development of land is in operation. Another programme of prevention salinity ingress in certain parts of Saurashtra where the problem has become very acute has also been initiated and significant provision is made for attending to the urgent works on the basis of a comprehensive plan formulated by a high level committee. The State Government has initiated action for the systematic development of coastal areas of the State under the different sectoral programmes during the period of Sixth Five Year Plan. Programmes relating to the development of coastal areas have been proposed in the relevant sub-sectors during the Seventh Plan 1985-90.

Coastal Zone Management

5.5.2 Based on the recommendations of the study group appointed by the State Planning Board, 549 villages of 37 talukas of 11 districts have been identified as coastal villages. The study group also assessed the development under different sectors which has already taken place in such coastal areas. During the period of Seventh Five Year Plan 1985-90 the Government has considered to establish machinery for the Coastal Zone Management and to implement the programmes for the development of coastal areas and for the upliftment of the people residing in coastal areas in an intergrated and co-ordinated manner. Coastal Zone Management is, thus, altogether a new concept of multi-sectoral and multi-disciplinary character. Keeping in view the above approach different core areas have been identified for the present for specific development and special attention in the coastal zone. They include programmes to prevent salinity ingress, development of salt based industries, mineral and mineral based industries, development of ports in such a manner so that they can play a role of catalysts in the the development of the backward coastal areas, development of fisheries, development of infrastructural facilities like approach roads, coastal high-ways, transport etc, development of agriculture by developing coconut plantations, mangrove plantations, Jojoba plantations, providing dependable source of drinking water to 147 villages in coastal areas and providing electricity to about 308 villages for domestic purpose. Besides, the development of tourist centres in the coastal areas has also been considered. All such programmes have been proposed to be implemented in a manner so as to preserve the ecology and environment of these coastal areas. The Planning Commission has also recognised the need of the development of coastal areas as a special problem areas during the period of the Seventh Plan. The Ports and Fisheries Department will act as "Nodal Department" to co-ordinate the various activities of different sectors and to monitor the sectoral progress.

5.6 Industrially Backward Areas

5.6.1 The following 11 districts including "No. Industry" district of Dangs: (1) Amreli (2) Banaskantha, (3) Bhavnagar, (4) Bharuch, (5) Junagadh, (6) Kachchh, (7) Panchmahals, (8) Mahesana, (9) Sabarkantha (10) Surendranagar and (11) Dangs have been declared by the Government of India as industrially backward for the purpose of concessional finance from financial institutions as well as for the central cash subsidy. The following districts are now eligible for central subsidy at the rates specified below :--

Category	Name of District	Rate of Central Subsidy
A	Dangs	25% of the investment subject to the ceiling of Rs. 25 lakhs
B	Panchmahals, Bharuch, Surendranagar.	15% of the investment subject to the ceiling of Rs. 15 lakhs
C	Amreli, Banaskantha, Bhavnagar, Junagadh, Kachchh, Mahesana, Sabarkantha.	10% of the investment subject to the ceiling of Rs. 10 lakhs

An outlay of Rs. 60 crores is proposed for the Seventh Plan for this centrally sponsored programme. Industries in these districts receive special benefits in respect of liberal finance on concessional terms, special rates in respect of purchase of machinery on hire purchase, preferential treatment for allotment of scarce and imported materials, etc, as also Central and State subsidies.

5.6.2. The policy of location of industries as now adopted by the State Government not only seeks to check the indiscriminate growth of industries in large urban complexes but is designed to encourage their dispersal in the rural and less developed areas. The basic objective of the development of industrially backward areas has been kept at the centre of attention. Conscious efforts would be made to divert the flow of resources so as to pull industries for the development of backward areas. It is proposed to continue this policy during Seventh Five Year Plan also.

5.6.3. A further fillip to backward area development would be achieved through the package of incentive under which, the capital subsidy and sales tax benefits on liberal scale being offered by State Government to industries to be set up in rural and backward areas so as to compensate them for economic burden and handicaps. The more backward location, the larger will be the quantum of assistance available.

5.6.4 The GIDC has adopted a policy of locating its various projects in the backward areas of the State. Out of 162 estates, 56 estates have been set up in the backward areas. During the Sixth Plan the development expenditure of GIDC in backward areas has increased considerably. During Seventh Plan about Rs. 80.00 crores are expected to be invested in backward areas. The public undertakings viz. GSFC, GIDC, GIIC etc. will continue to play a significant role in the promotion of industrial development in the backward areas during the period of Seventh Plan.

5.6.5 The khadi and village industries programme is being expanded considerably. This includes the setting up of a number of ambar charkhas, parishramalayas and gramodhyog wadies. This programme together with other programme of cottage industries will make significant contribution to the development of rural industries in the State including the backward areas. The new thrust on development and spread of industries in the rural and backward areas of the State will also result in generation of large employment opportunities and help in improving the income levels of the poor. All such programmes are proposed to be accelerated during the period of Seventh Plan.

5.7 Special Backward Areas Development Programme

5.7.1. In the State of Gujarat, there are certain geographical backward areas for which different development programmes have been undertaken since the period of Second Five Year Plan. The Gned Area of Junagadh is one of such areas spreading over more than one taluka which continues to receive attention of the

Government since 1958. During the Third Plan period, efforts were made for the development of Bhal area which spreads over 4 districts viz., Ahmedabad, Surendranagar, Bhavnagar and Kheda. With the collaboration of Dutch experts a project for the reclamation of Bhal area was undertaken. But the co-ordinated efforts for the development of such special backward areas have commenced only during the period of Sixth Five Year Plan. For the first time, a token provision of Rs. 50.00 lakhs was made for the development of special backward areas. And following ten such areas were identified during the Sixth Plan.

Name of Special Backward Areas.	Name of Districts.
1. Khakharia Tappa	Ahmedabad and Mahesana
2. Nalkantha	Ahmedabad and Surendranagar
3. Panchal	Surendranagar, Amreli and Rajkot
4. Pandu Mevas	Vadodara
5. Okhamandal	Jamnagar
6. Ghed	Junagadh
7. Bhal	Surendranagar, Ahmedabad, Bhavnagar and Kheda
8. Ukai Irrigation project affected resettlement area	Surat
9. Kharapat area	Amreli and Bhavnagar
10. Vagdod area	Mahesana

5.7.2. A team of senior officers who were conversant with the peculiarities of the geographical and socio-economic conditions of such backward areas were entrusted with the task of preparing a "Detailed Report" highlighting the problems of such backward areas and measures for the removal of bottlenecks hindering the progress of development of these backward areas. Based on such report, discussions were held with the MLAs, local representatives like Jilla Panchayat Pramukhs, Taluka Panchayat Pramukhs and local officers and on the basis of their recommendations, Government has started the implementation of programmes for the development of such backward areas.

5.7.3. During 1983-84 the amount of this special provision on uniform pattern was placed at the disposal of concerned District Planning Boards who were also directed to earmark and provide an equal amount from their incentive outlays for the programmes sanctioned for the development of each such seven backward areas.

5.7.4. During 1984-85 for allocation of such grants "Norms" have been decided and allocations are made on the basis of population and area in the ratio of 1:1 and the contribution of the District Planning Boards is restricted to Rs. 7.00 lakhs per area. Accordingly during 1984-85, an amount of Rs. 226.00 lakhs was sanctioned under this programme inclusive of Rs. 56.00 lakhs

contribution of the District Planning Boards among eight areas save Kharapat and Vagdod areas as the reports of these areas were under consideration.

5.7.5. Under this programme, works of water supply, roads, drainage, plantations of trees, skill formation schemes, carpet weaving centres, repairs to primary schools etc., are under implementation.

5.7.6. During the Seventh Five Year Plan it is proposed to undertake the developmental activities in a most scientific manner. Besides, the programmes already being implemented by the concerned departments under their respective sectors are proposed to be accelerated during the period of Seventh Plan which will also give impetus to the all-round development of these backward areas. The special provisions proposed for these backward areas will help in achieving the desired level of development. During the period of Seventh Five Year Plan, an outlay of Rs. 19.60 crores is provided for the development of such special backward areas.

5.8 Special Programme for Development of Backward Talukas

5.8.1. A special programme was under implementation for the development of relatively more backward talukas by taking up small works of local importance such as roads, minor irrigation, primary education, primary health facility and rural water supply. A special provision for the purpose was being made every year at the rate of Rs. 2 lakh per taluka for 25 such talukas in the Sixth Plan. Under this programme, the amount was being placed at the disposal of the concerned district panchayat as grant in aid for undertaking essential works in these talukas having due regard to local needs.

5.8.2. During the period of Sixth Plan, the Government had appointed a committee under the Chairmanship of Dr. I. G. Patel to identify Backward Talukas and Backward Areas in the State. The "Report" of this committee has been received and is under active consideration of the Government. During the period of Seventh Five Year Plan, it is proposed to implement those recommendations, concerning the development of Backward Talukas/Areas which will be accepted by the Government. For this purpose an outlay of Rs. 14.65 crores is provided during the Seventh Five Year Plan 1985-90.

5.9. Integrated Rural Development Programme

5.9.1. The objective of the IRD Programme in the Seventh Plan 1985-90 would be to provide income generating assets, to identified families of the target groups of the rural poor to enable them to attain higher levels of income and cease to be poor in due course. The programme envisages self-reliance without deprivation. The strategy for IRDP during the Seventh Plan will be two fold. Firstly to consolidate the gains made during the Sixth Plan by providing supplementary dose to those families who have not been able to cross the poverty line. The second part would be to cover 3.08 lakhs new beneficiaries. During the Sixth Plan about 7.10 lakhs families have been assisted including 0.85 lakhs Scheduled Castes families and 1.78 lakh Scheduled Tribe families.

5.9.2. During the Seventh Plan 1985-90 an outlay of Rs. 5284.00 lakhs is provided under I.R.D.P. Similar amount is anticipated from the Central Government during the same period.

5.9.3. TRYSEM.— The "TRYSEM" Scheme aims to equip the rural youth with necessary skills and technology to enable them to start self employment. The "TRYSEM" scheme is an integral part of I. R. D. P. and has been found useful in training the rural youths. This Scheme would be continued in the Seventh Plan as an integral part of I. R. D. P. The scope of TRYSEM would be extended

to cover wage employment apart from self employment. Special attention would be given to the rural artisans and craftsmen and would be helped with inputs, technological improvements and innovations as well as marketing facilities. The linkages with Government and non-Government institutions would be strengthened.

5.9.4. Development of Women and Children in Rural Areas (DWCRA) introduced in the fourth year of the Sixth Plan aims to help individual women to avail of the facilities already available under I. R. D. P., where individual women are found incapable of taking advantage of these facilities. The scheme is proposed to be continued during the Seventh Plan for which an outlay of Rs. 40 lakhs is provided as state share.

5.10. Labour Welfare Programme

5.10.1. Several programmes benefitting the workers have been proposed during the Seventh Plan under the Labour and Labour Welfare Sub-Sector. The main programmes benefitting them are those of setting up and strengthening of rural welfare board and financial help for the maintenance of old agricultural labourers as well as protection and welfare of un-organised and unprotected labour, industrial training workshops, enforcement of the payment of gratuity Act, 1972. Safety cells for prevention of accidents, implementation of Minimum Wages Act, encouragement of labour welfare activities through Gujarat Labour Welfare Board, etc. It is also proposed to give grant-in-aid to the institutions which are prepared and competent to provide creches and day centres for the children of women workers in small factories and other establishments in the urban as well as in rural areas. The scheme is expected to provide not only grant-in-aid for socially desirable objectives in rural areas but also in a way to strengthen rural workers organisations to a considerable extent. During Seventh Plan it is also proposed to give protection to unorganised labour, carry out welfare activities for Inter-State migrant workers and impart non-formal education to child labour.

Rural Labour Welfare Board for Agriculture and Rural Workers

5.10.2. In order to provide assistance in various forms, State Government has established "Gujarat Rural Welfare Board" registered under the Societies Act, 1960. The board prepared scheme of opening of Rural Labour Welfare Centres. Gujarat is the first State in the country in establishing such institutions. 100 rural labour welfare centers have been established at the end of the Sixth Plan. It is envisaged that at the end of Seventh Plan 1985-90, 161 centres would be functioning.

Financial Assistance for the maintenance of old age agricultural labourers

5.10.3. The scheme for granting old age pension to agricultural labourers was introduced during the year 1981. Under this scheme, provision of Rs. 35 lakhs has been provided for the Seventh Plan for extending benefits of this scheme to more beneficiaries. During 1983-84, the State Government has also started Group Insurance Scheme. The scope of this scheme will be expanded during the Seventh Plan.

5.11. Rural Artisans

5.11.1. It is essential to upgrade existing skills and develop new skills among traditional artisans. The needs of changing time necessitate identification of suitable technology and provide help to the artisans to acquire the same. The aim is to tie up effectively the training programmes with the local requirements. It is proposed to suitably expand the existing programmes wherever necessary. The State has facilities for the formulation of skills through different schemes and institutions viz., apprentice scheme, vocational and technical education schemes, ITIs, and mini ITIs, courses run by the Directorate of the Cottage Industries, etc. It is proposed to provide training facilities through private training institu-

tions which will also play a vital role. However, with the establishment of big and medium industries and around 68,000 SSI units in the State, the demand for skilled and semi-skilled workers is expected to rise considerably. Provision has been proposed for undertaking different programmes of skill formation and training. Under the programme of financial assistance to artisans, it is envisaged to give loans to individuals at a lower rate of interest for purchase of raw materials and tools and equipment for starting their business. The artisans belonging to scheduled castes and scheduled tribes will get the financial assistance at concessional rate of interest through the Scheduled Castes Economic Development Corporation and Tribal Development Corporation. Besides, benefits of the differential rate of interest on loan will be made available to all eligible artisan during the period of the Seventh Plan.

5.12. Welfare of Backward Classes (SCs, STs, NTs and DNTs.)

5.12.1. A sizeable provision of Rs. 115.27 crores has been provided for the supplementary sector of welfare backward classes *i. e.*, scheduled castes, scheduled tribes, nomadic tribes and denotified tribes. Several new schemes are also included in the backward class welfare sub-sector in the proposals of the Seventh Five Year Plan. Programme in this sub-sector fall under three main groups *viz.*, education, economic uplift and health, housing, and other schemes. In the implementation of the schemes, preference will be given to landless labourers and most vulnerable sections amongst the backward classes. For economic development of Scheduled Tribes and Scheduled Castes, the Scheduled Tribes Development Corporation and Scheduled Castes Economic Development Corporation have been set up under the Registration of Societies Act, 1960. The Government has also set up boards for the minorities and for the Socially economically and educationally backward classes.

Special Component Plan

5.12.2. The Special Component Plan has been initiated as an integral part of the State Plan for around development of Scheduled Castes during the Sixth Plan. The basic objectives of special component plan during the Seventh Plan 1985-90 are :

(i) To ensure minimum desirable levels of incomes for the large majority of Scheduled Castes population living below poverty line through provisions of productive assets and skills for economic activities.

(ii) To provide the basic minimum needs to the Scheduled Castes population in the villages where they invariably live in separate localities.

5.12.3. During the Seventh Plan, therefore, a priority has been assigned to the programmes of generating more employment and generating additional income so as to bring the families above the poverty line. The Gujarat Scheduled Castes Economic Development Corporation which has been set up in 1979 has accelerated its activities for the upliftment of the scheduled castes. An out lay of Rs. 178.09 crores is likely to flow under the Special Component plan from the general sectors of State Plan of Rs. 6000.00 crores during Seventh Plan and Rs. 20.50 crores is assumed as special central assistance. Thus, the size of the special component plan would be of the order of Rs. 198.59 crores during 1985-90.

5.12.4 The Government had earlier accepted all the recommendations of the Socially and Educationally Backward Classes Commission (Baxi Commission) and has agreed to consider 78 castes identified by the Commission as socially and educationally backward classes. A programme for their upliftment has been initiated during 1978-79. Besides, Government has also decided to give certain benefits to the persons with a family income limit of Rs. 4,800 per annum in the specified occupations. These people have been designated as Economically Backward Classes (EBC). An outlay of

Rs. 30.47 crores is provided in the Seventh Plan for the socially and educationally backward classes and economically backward classes. An outlay of Rs. 3.34 crores has been provided for the welfare of Minority Communities.

5.13 District plans for Social Inputs

5.13.1 As a part of the basic minimum needs approach, and with women and children as a focal point, the State Government has initiated District plans for social Inputs with the assistance of UNICEF in 18 blocks of nine districts of the State viz, Valsad Surat, Vadodara, Bharuch, Panchmahals, Sabarkantha, Surendranagar, Junagadh and Kachchh. Meaningful programmes have been formulated for reducing child and maternal mortality among the families below poverty line. The programmes are expected to be accelerated during the Seventh Plan. An outlay of Rs. 3.03 crores has been provided for the purpose.

5.14 Housing for the Weaker Sections

5.14.1 In addition to the scheme for assisting the beneficiaries of the programme of free house plots and the scheme for environmental improvement of slum areas provided under the Minimum Needs Programme, other housing schemes are also proposed outside the Minimum Needs programme for low income groups and economically weaker sections both in urban and rural areas. Provision is proposed to enable the Gujarat Housing Board and the Rural Housing Board to take up housing programmes for the economically weaker sections and low income group on a larger scale. The Slum Clearance Board will also play a significant role in the sphere assigned to it. Under the site and services scheme, it is proposed to provide skeleton houses within the reach of urban poor with the assistance of Gujarat Housing Board, Gujarat Slum Clearance Board, Urban Development Authorities and Municipal Finance Board. An outlay of Rs. 2 crores has been provided for the Seventh Plan. A scheme for economically weaker sections in rural areas with HUDCO participation has also been proposed with an outlay of Rs. 6.36 crores. An outlay of Rs. 6.34 crores is provided for the low income group housing scheme in the rural areas. It is also proposed to provide assistance for improvement of houses in rural areas particularly to weaker sections of the society with an outlay of Rs. 1.63 crores. The scheme of sanctioning loans to farmers for construction of houses in rural areas introduced in the Sixth Plan is proposed to be continued during the Seventh Plan with an outlay of Rs. 1.25 crores. Under the Urban Housing for Economically Weaker Sections Housing and Low Income Group Housing provision of Rs. 22 crores is made during the Seventh Plan, 1985-90.

5.15 Education and Welfare of Physically Handicapped

5.15.1 Various activities for the education, training and rehabilitation of the physically handicapped persons such as blind, deaf and dumb and orthopaedically handicapped are carried out in the State. Grants are also paid to voluntary agencies for carrying out such activities. This programme is proposed to be continued on an expanded scale during the Seventh Plan for which an outlay of Rs. 2 crores is provided.

5.16 Minimum Needs Programme

5.16.1. Minimum Needs Programme launched in the Fifth Plan envisaged the allocation of adequate resources for programmes aiming at the upgradation of levels of social consumption of the poor covering elementary education, rural health, drinking water supply, rural roads, rural electrification, house sites for rural landless labourers and environmental improvement of slums in the urban areas. The programme aimed at establishing a network of certain essential services based on the criteria of uniformity and equality throughout the country. These programmes which were continued during the Sixth Plan 1980-85 are also proposed to be continued

during period of Seventh Five Year Plan 1985-90. Apart from providing essential infrastructural and welfare services to the weaker sections of the population, the Minimum Needs Programme is also labour intensive and can create substantial additional employment. Considerable attention is to be given both to locational aspects of these basic services and their integration so as to confer optional benefits on the target groups. The Seventh Plan envisages to accelerate the implementation of the programme. An outlay of Rs. 321.36 crores is provided for the Minimum Needs Programme for the Seventh Plan, 1985-90. Details of the programme are given under the relevant chapters.

APPENDIX—A

List of Talukas covered under Tribal Area Sub-Plan

Sr. No.	Name of Taluka	Name of District
1	2	3
1.	Vijaynagar	Sabarkantha
2.	Khedbrahma	Sabarkantha
3.	Bhiloda	Sabarkantha
4.	Meghraj	Sabarkantha
5.	Jhalod	Panchmahals
6.	Dahod	Panchmahals
7.	Santrampur	Panchmahals
8.	Limkheda	Panchmahals
9.	Devgadhbaria	Panchmahals
10.	Chhotaudepur	Vadodara
11.	Naswadi	Vadodara
12.	Tilakwada	Vadodara
13.	Dediapada	Bharuch
14.	Sagbara	Bharuch
15.	Valia	Bharuch
16.	Nandod	Bharuch
17.	Jhagadia	Bharuch
18.	Uchchhal	Surat
19.	Vyara	Surat
20.	Mahuva	Surat

1	2	3
21.	Mandvi	Surat
22.	Nizar	Surat
23.	Songadh	Surat
24.	Valcd	Surat
25.	Mangrol	Surat
26.	Bardoli	Surat
27.	Dharampur	Valsad
28.	Bansda	Valsad
29.	Chikhli	Valsad
30.	Pardi	Valsad
31.	Umbergaon	Valsad
32.	Dangs	Dangs

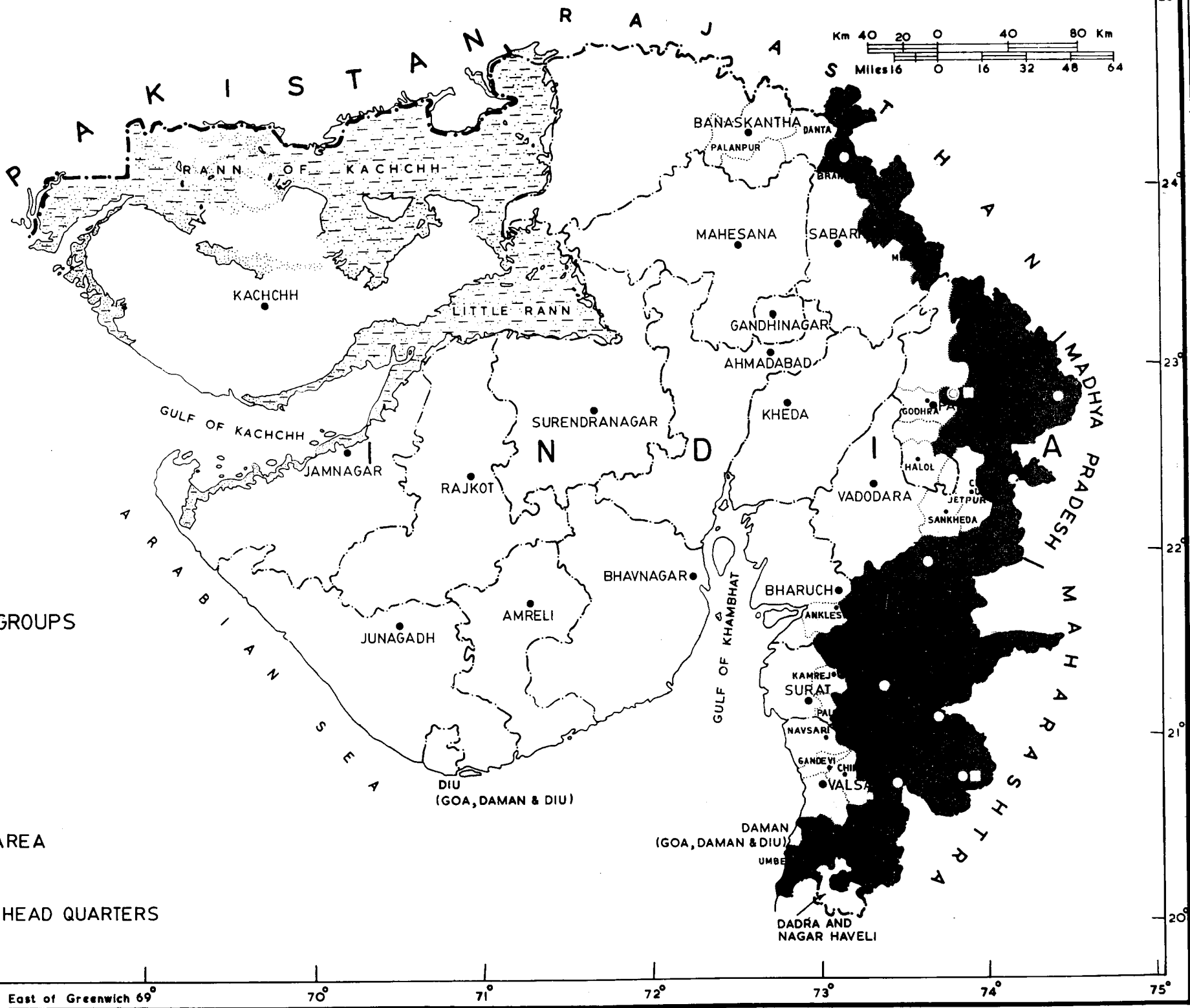
List of Tribal Pockets covered under Tribal Area Sub-Plan in addition to 32 Talukas

Sr. No. 1	Name of Tribal Pocket 2	Name of Taluka 3	Name of District 4
1.	Ankleshwar	Ankleshwar	Bharuch
2.	Kamrej	Kamrej	Surat
3.	Palsana	Palsana	Surat
4.	Palej	Gandevi	Valsad
5.	Atgam	Valsad	Valsad
6.	Ronval	Valsad	Valsad
7.	Sisodaganesh	Navsari	Valsad
8.	Vadoli	Sankheda	Vadodara
9.	Bhatput	Sankheda	Vadodara
10.	Kareli	Jambugam	Vadodara
11.	Bhikhapura	Jambugam	Vadodara
12.	Kathoda	Halol	Panchmahals
13.	Mora	Godhra	Panchmahals
14.	Amirgadh	Palanpur	Banaskantha
15.	Danta	Danta	Banaskantha

GUJARAT

TRIBAL REGION

BOUNDARIES:
 INTERNATIONAL
 STATE / UNION TERRITORY
 DISTRICT
 TALUKA



TRIBAL GROUPS

- BHILS
- DUBLAS
- DHODIAS
- GAMITS
- NAIKDAS

- TRIBAL AREA
- POCKETS
- PROJECT HEAD QUARTERS

SURVEY OF INDIA MAP WITH THE PERMISSION OF THE
 GENERAL OF INDIA
 ALL WATERS OF INDIA EXTEND INTO THE SEA TO A DISTANCE OF TWELVE NAUTICAL MILES
 FROM THE APPROPRIATE BASE LINE.
 FOR THE CORRECTNESS OF INTERNAL DETAILS RESTS WITH THE PUBLISHER.

CHAPTER VI

DECENTRALISED DISTRICT PLANNING

Introductory

6.1. Decentralisation of Planning Process

6.1.1. Effective decentralisation of the Planning process is one of the basic prerequisites for harnessing local resources and manpower fully and for carrying the the benefits of development to the smallest area/unit and the poorest section of people and promoting beneficiary participation. The most viable unit of planning at the sub-state level is the district. The need for a careful delineation of the sectors of development that can be effectively planned at the district level and devising a scheme of transfer of resources from the State to the districts in order to enable them to formulate their development plans within a given resources matrix has been fully recognised. In the Approach Paper for the Seventh Five Year Plan prepared by the Planning Commission for the period 1985-90, emphasis has been laid on grassroot planning. The Decentralised Planning process is also proposed to be initiated at level below the district i.e. Taluka or Block. This is sought to be achieved by augmenting the capabilities of development administration both at the district as well as the block level. For effective implementation of the plan objectives, arrangements for people's involvement in the Planning process will be required to be reviewed and strengthened.

6.1.2. The idea of District Planning is being entertained from the Second Five Year Plan. With the introduction of Panchayati Raj in 1963, certain powers as also number of District Level Schemes were transferred to Panchayats along with funds and personnel. This could be considered the first concrete phase in this direction. With a view to making planning at district level more realistic and meaningful and securing people's involvement and participation to a greater extent District Planning Boards were constituted at district level in June, 1973. The constitution of these Boards was on a modest scale initially but with the passage of time and increasing attention required to be given to the decentralisation of planning process at district level, these Boards were reconstituted from time to time. The present District Planning Board at each district has a Minister of the State Government as Chairman, Collector and District Panchayat Presidents as Vice-Chairman and Co-vice Chairman respectively and all M.L.As and M.Ps. elected from the District and other non-officials/officials as members.

At the time of formulating the State's Fourth and Fifth Five Year Plans attempts were made to involve the Districts Panchayats in the formulation of the proposals. Similarly in the context of formulating the proposals for the earlier Sixth Five Year Plan 1978-83 and subsequently for 1980-85, efforts were made to get the proposals from the Districts through the District Planning Boards. For this purpose District Panchayats in case of Fourth and Fifth Five Year Plans and District Planning Boards in case of Sixth Five Year Plan were intimated tentative ceilings and were requested to formulate proposals in respect of District Level Schemes within the prescribed ceiling and send them to the concerned Working Groups set up at the State Level for formulation of the sectoral proposals. It was expected that the proposals so received would be considered while formulating the Draft State Five Year Plan. For the Fourth and Fifth Five Year Plans, proposals from many District Panchayats were received very late. Moreover, they were not in order and were far in excess of the prescribed ceilings. As regards the proposals for the Sixth Five Year Plan many of the District Planning Boards could not adhere to the time Schedule. Moreover, due to the tight schedule for discussions with the Planning Commission, it was not possible to ensure full integration of the proposals received from the districts in the State's Plan. However, with a view to suitably integrating the

proposals prepared by the District Planning Boards with the State Plan, beginning has been made since 1980-81 to associate the District Planning Boards with the task of preparation of District Annual Plans on the basis of their proposals for the Sixth Five Year Plan. This process of preparation of District Annual Plans has gathered momentum and it will be stabilised during the Seventh Five Year Plan also. Moreover, process of preparation of Taluka Plans for Normal Plan Schemes will also be initiated during the Seventh Five Year Plan.

6.1.3. The District Planning Boards have been involved right from the beginning in the formulation of the proposals for the Draft State Seventh Five Year Plan. The District Planning Boards have been intimated tentative ceilings for formulation of their District Seventh Five Year Plan proposals and they have been asked to send their proposals to the concerned Steering Groups set up at the State Level. All the District Planning Boards have accordingly sent their proposals to concerned Steering Groups. The Departments were instructed to incorporate as many proposals received from the District Planning Boards as possible in the Draft State Seventh Plan. Even where it is not possible to incorporate the proposals, reasons for non acceptance are required to be communicated to the concerned District Planning Board under intimation to the Multi-level Planning unit at the State level. Seminars of non-officials, office bearers, academicians, experts and officials have been held at District level where these Draft proposals were discussed in full details. Through this process, the Sub-State level Planners are exposed to the State and National priorities and goals whereas the State level planners are exposed to the people's real needs and demands.

6.2. Development during the Sixth Five Year Plan 1980-85.

Basis of Distribution of Outlays

6.2.1. It has been envisaged that 35 per cent of the State Plan outlay should on an average, be allotted for district level schemes during the period of the Five Year Plan out of which 20% should be earmarked as discretionary and incentive outlays for districts to enable them to take up schemes, which may be considered useful to them in light of local needs. An outlay of Rs. 1125 crores in the State's Sixth Five Year Plan of Rs. 3760 crores was allotted towards District Five Year Plans. The above outlay of Rs. 125 crores for district level schemes during the Sixth Plan period was comprised of Rs. 925 crores for Normal district level Schemes and Rs. 150 crores for schemes to be proposed by District Planning Boards on their discretion and Rs. 50 crores by way of incentive outlay allocable to districts against matching contribution.

6.2.2. The criteria for districtwise distribution of outlay for District Plans from the State Plan were as following during the Sixth Five Year Plan. They have been continued for the year 1985-86 also.

Item	Percent
Population (excluding Towns having population of 50,000 and above)	40
Population of scheduled castes, scheduled tribes and small and marginal farmers and population of agricultural labourers other than scheduled castes and tribes.	15
Agricultural Backwardness	10
Irrigational Backwardness	10
Industrial Backwardness	5
Backwardness in respect of Roads and drinking water.	10
Backwardness in respect of the targets of other selected minimum needs	5
Incentive provision.	5
	100

Components of District Plan

6.2.3. The district plan outlay has three parts viz. (1) outlay for normal district level schemes (2) discretionary outlay against which the District Planning Boards can on the basis of 100% Govt. assistance select the schemes which they consider useful having regard to local needs, and (3) incentive outlay which needs to be matched by the funds raised by the district.

Normal District Level Schemes

6.2.4. In respect of normal district level schemes District Planning Boards are indicated financial ceilings against which they have to formulate their proposals, keeping in view the priorities and guidelines given by the State Government and to forward them to the concerned Heads of Departments and Administrative Departments so that these proposals are incorporated in their plan and budgetary proposals. The Heads of Departments are expected to intimate reasons to the concerned District Planning Boards in cases where such proposals cannot be so incorporated, or required major changes therein.

6.2.5 The outlay for district level schemes (including discretionary and incentive outlay) is around 40% of the total State Plan outlay as indicated in the following table.

(Rs. in crores)

Year	Total State Plan outlay	Outlay for District Level Schemes Percentage			
		Normal district level schemes.	Discretionary and Incentive Outlay.	Total	
1980-81	537.50	193.52	28.00	221.52	41.2
1981-82	633.09	214.55	30.40	244.95	38.7
1982-83	760.58	270.52	35.00	305.52	40.2
1983-84	900.00	320.71	36.00	366.71	39.6
1984-85	935.00	353.01	45.00	398.01	42.6
TOTAL	3766.17	1352.31	174.40	1526.71	40.5

6.2.6 While the entire outlay for Decentralised District Planning which comprised of discretionary and incentive outlay is meant for district level Schemes, the provisions for normal district level schemes under agricultural and allied services account for about 80% (on an average) of the outlay provided for that Sector in the State Annual Plan. The percentage share of Normal District Level Schemes from out of total outlay provided in the State Sixth Five Year Plan in regard to selected sectors of development is given in the following table:—

Sector of Development (1)	Percentage share of the outlay for Normal District Level Schemes from out of total outlay for the sectors in the State Annual Plan and rounded (2)
Agricultural and allied programmes.	80
Irrigation.	39
Village and Small Industries.	63
Road Development.	80
Social Services.	45

Discretionary and incentive outlays

6.2.7. Discretionary and incentive outlays are placed at the disposal of the District Planning Boards. They have discretion to take up schemes of local importance especially of minimum needs programme and execute them through the concerned Department or organisation. The District Planning Board can finance projects on 100% basis from the discretionary component of the District Plan Outlay, while the incentive outlay requires a matching contribution of 50% or 25% depending upon the pattern prescribed for the District (Now Taluka). The District Planning Boards are expected to suggest schemes/works of local importance generally related to the Minimum Needs programme, keeping in view the balanced development of the district. The District Planning Boards can formulate, sanction, get implemented and monitored such works/schemes. For the purpose of formulation of proposals and assessment of quality of works done and the impact generated thereby, committees have also been formed at taluka level. The District Planning Boards have full discretion for selection and appointment of members on these committees.

6.2.8. The practice of providing discretionary and incentive outlays at the disposal of the District Planning Boards, with full discretion of selection of schemes against these outlays has evoked considerable enthusiasm at the District Level. The impact of the scheme has reached down to the village level and the people have started feeling that they are participants in the planning process and that they can propose and can get implemented schemes of their choice. This has made possible provisions for missing links long left unattended.

6.2.9 The District Planning Boards have taken up their task of formulating plans and implementing them with great enthusiasm. Every year has witnessed the District Planning Boards sanctioning a large number of schemes and getting them implemented. During the four years, 1980-81 to 1983-84, a total amount of Rs. 129.14 crores was allocated to District Planning Boards. Of this, an amount of Rs. 127.04 crores has been disbursed by them for various projects. The yearwise figures of allocations and expenditure are as under:—

(Rs. in crores)

Year	Outlay allocated by way of			Expenditure incurred (Amount utilised) out of		
	Discretionary outlay	Incentive outlay	Total	Discretionary outlay.	Incentive outlay.	Total
1	2	3	4	5	6	7
1980—81	21.00	7.00	28.00	20.92	5.71	26.63
1981—82	24.00	6.40	30.40	23.98	6.31	30.29
1982—83	26.74	8.00	34.74	26.72	7.76	34.48
1983—84	28.00	8.00	36.00	27.89	7.75	35.64
1984—85	31.62	10.68	42.30	31.48	10.64	42.12
Total	131.36	40.08	171.44	130.99	38.17	169.16

6.2.10. One of the important features of decentralised district planning is the tremendous popular enthusiasm it has generated. Suggestions for new works keep pouring into the District Planning Offices. The Executive Committee of the District Planning Board and the Board itself scrutinize these proposals with care and formulate priorities. An index of the popular enthusiasm generated can be had in the popular contribution raised against incentive outlay. The yearwise figures of the popular contribution required to be raised and the amount actually raised for the period of three years 1980-81 to 1982-83 are given below :—

(Rs. in lakhs)

Year	Incentive outlay	People's contribution		
		To be raised by DPB for full utilisation of incentive outlay	Actually raised by DPBs	Percentage
1	2	3	4	5
1980-81	700	498.65	376.25	75.4
1981-82	640	455.36	440.78	76.8
1982-83	800	569.34	546.52	96.0
Total	2140	1523.35	1363.55	89.5

6.2.11. During 1980-81 to 1982-83, a total amount of Rs. 13.63 crores was raised as popular contribution to avail of Rs. 19.78 crores of incentive outlay.

As the unit for raising popular contribution against the Incentive Outlay has been replaced from "District" to "Taluka" since 1983-84 talukawise details regarding popular contribution to be raised and actually raised are not forthcoming readily.

6.2.12. One of the interesting features of the pattern of allocation of funds by the District Planning Boards in that the scale of priorities differs from District to District and also differs from that in the outlay for Normal District Level Schemes which are provided for by respective Heads of Departments. This shows that the District Planning Boards have exercised their discretion to suggest schemes of local importance taking local factors into account.

6.2.13. During the four years as much as 71.7 percentage was allocated by District Planning Boards towards schemes covered under the Minimum Needs Programmes. The percentage break up of this amongst different programmes under MNP is given in the following table :—

Programme	Percentage breakup of allocation during four years (i.e. 1980-81 to 1983-84) in respect of		
	Discretionary Outlay	Incentive Outlay	Total
1	2	3	4
Rural Electrification	5.3	3.5	4.9
Rural Roads	33.8	10.3	28.5
Elementary Education	12.8	28.0	16.2
Adult Education	..	..	..
Rural Health	4.3	5.9	4.7
Rural Water Supply	14.3	19.0	15.3
Rural Housing	1.2	0.1	1.0
Environmental Improvement of Slums	0.8	0.8	0.8
Nutrition	0.3	0.1	0.3
Total : MNP	72.8	67.7	71.7

6.2.14. Of the total outlay placed at the disposal of the implementing authorities by District Planning Boards during the four years, the large portion i.e. 28.5 percent went to rural roads. The next priority was primary education with 16.2 percent followed by rural water supply 15.3 percent, minor irrigation with 7.2 percent and rural electrification with 4.9 percent. The table below gives details of the Sub-sectors getting more than 4.0 percent and percentages of allocation to each during the four years (1980-81 to 1983-84).

Sector/Sub Sector of Development	Percentage allocation during 1980-81 to 1983-84 from out of		
	Discretionary outlay	Incentive outlay	Total
1	2	3	4
Rural Roads	33.8	10.3	28.5
Primary Education	12.8	28.0	16.2
Rural Water Supply	14.3	19.00	15.3
Minor Irrigation	9.2	0.3	7.2
Rural Electrification	5.3	3.5	4.9
Rural Health	4.3	5.9	4.7
Other Sub-sectors such as Rural Housing, Environmental Impro. of Slums, Nutrition Crop Husbandry C.D. & Panchayats, small and Village Industries, Road Development (other than MNP) General Education, Medical and public Health (other than MNP) Social Welfare etc.	20.3	33.0	23.2
Total	100.0	100.0	100.0

6.2.15. The scale of priorities in these districts reflects the stage of development of the particular District the availability or non-availability of funds from other sources, inadequate normal plan funds and perception of needs by the local people. The priorities also vary considerably from District to District. The District Planning Boards have also taken up innovative schemes of local importance; amongst them, mention could be made of rural fire fighting arrangements purchase of laproscopic machine for tubectomy operations, paramedical vans, pipeline and standposts for water supply and electrification of street lights in Harijan Colonies etc.

6.2.16. The physical achievements through District Planning allocations are easily the most important index of their success. Some of the more important physical achievements during the period upto 30th November, 1984 are given below :—

- 5075 school class rooms were constructed.
- 4464 new work of water supply were completed.
- Construction of 1241 link roads and 1682 approach roads covering about 4140 villages.
- Rehabilitation of defunct 201 village Water Supply schemes.
- Repairs to 5190 school rooms.

—Repairing of 4805 Primary Health Centres and Sub-Centres

—820 villages were electrified for all purposes

Improvement in the District Planning process

6.2.17. Many steps have been taken since 1983-84 for improving the administrative and operational aspects of decentralised district planning. The important of these are indicated below.

Administrative Measures

6.2.18. With a view to reviewing the progress made under the Decentralised District Planning, zonal meetings are held at Rajkot, Vadodara and Gandhinagar wherein various issues relating to district planning are discussed. Important matters such as preparations of proposals for District Annual Plan, strengthening of account and audit capabilities of the district planning units, identification of admissible and inadmissible schemes etc. are discussed and remedial steps identified. The need for advanced planning on the basis of systematic data available from village amenities surveys is also stressed. The District Planning Boards have been advised to adopt atleast one village in the district, which lies in the interior part of the district and has no MNP facilities, for being developed from the Decentralised District Planning funds.

Measures for Balanced Development

Talukawise Distribution of Discretionary outlay

6.2.19. During the first two years, it was observed that some of the more advanced Talukas got relatively more benefit from the outlay of Decentralised District Planning. To correct this situation, the discretionary outlay allocated to the District Planning Boards from the years 1982-83 is being divided amongst talukas with reference to the following criteria of development. These criteria have also been continued for the year 1985-86.

1. Population of taluka excluding population of towns having population of 50,000 or more.
2. Population of Scheduled Castes/Scheduled Tribes and the agricultural labourers excluding those belonging to SC and ST.
3. The backwardness in agriculture with reference to the following parameters :
 - (a) Proportion of cultivable area to the total geographical area;
 - (b) Proportion of cultivated lands to the cultivable land;
 - (c) Proportion of area under irrigation to the total cropped area;
 - (d) Proportion of area sown more than once to the total cropped area;
 - (e) Proportion of area under Major cash-crops to the total cropped area;
 - (f) Proportion of cropped area per agricultural worker;
 - (g) Proportion of cultivable area per agricultural worker;

4. Irrigational backwardness as measured with reference to the proportion of the area which does not receive the benefit of irrigation from out of total cropped area of the taluka.

5. Industrial backwardness as measured with reference to the percentage of average number of workers daily employed by the industrial units to the total number of workers in the taluka.

6. Backwardness in roads, as measured with reference to the number of villages which are not connected by pucca roads as also the population of such villages.

7. Backwardness in the field of drinking water supply as measured with reference to the number of villages without having any facilities for drinking water supply.

8. Backwardness in the field of education as measured with reference to the following parameters :—

(a) Number of villages having no primary schools.

(b) Population of such villages; and

(c) The number of additional school rooms required with reference to be existing criteria of the Education Department.

9. Backwardness in the field of rural public health as measured with reference to :—

(a) the number of primary health centres and sub-centres needed to be opened according to the norms envisaged for the minimum needs programme in the Sixth Plan document;

(b) proportion of the Government Medical Officers per 10,000 population.

10. Backwardness in the field of rural electrification as measured with reference to :—

(a) Number of villages having no facility of electricity;

(b) population of such villages; and

(c) the number of villages which are electrified for agricultural purposes only.

6.2.20. The District Planning Boards have been requested to set apart at least 66 to 75% (or more if the Board so decides) from the discretionary outlay allocated to the district and distribute the same amongst talukas in the proportion as determined with reference to the above criteria. The amount of 34 to 25% of the discretionary outlay was allowed to be retained at the district level for district level schemes or for the schemes benefitting more than one taluka as may be approved by the District Planning Boards. In most of the districts, Taluka Level Committees have been formed to formulate proposals against the discretionary and incentive outlays to be utilised in the talukas. Similarly, a Committee has also been formed at taluka level to go into the question of effectiveness and quality of works undertaken from the Decentralised Planning Funds. The formulation of these Taluka Level Committees and the selection of the members therein are to be decided by the District Planning Boards themselves.

6.2.21. A Committee for coordinating the programme for rural road works which are being taken up under different programmes has also been constituted under the Chairmanship of the Collector and the concerned officers at district level during 1982-83. This Committee sorts out the items for being funded through the appropriate sources and prepares a blue-print for detailed planning for each road work.

6.2.22 With the involvement of the local taluka people in formulation of proposals against discretionary and incentive outlays, it is expected that the local needs of the taluka will get adequately reflected and on approval from District Planning Board they will be implemented which will satisfy the requirement of the rural people and thus the goal of decentralisation of planning process will be achieved in real sense.

Incentive Outlay-Revision of Unit from District to Taluka

6.2.23. As regards incentive outlay, the proportion of funds to be raised by the District, depends upon whether it is eligible for the proportion of 25 : 75 or 50 : 50 in respect of the additional funds to be raised by the district and the matching amount of incentive outlay respectively. The District, having more than half of their talukas covered under Drought Prone Area Programme or Tribal Area Sub-Plan were treated as backward for the purpose and were eligible for the pattern of 25 : 75. Such districts were 8 in number while remaining 11 Districts of the State were eligible for 50 : 50 pattern. This had resulted in undue advantage to the comparatively more advanced talukas in the backward districts and also loss to the backward talukas in the advanced districts. With a view to remedying this situation, the Government had taken a decision to adopt taluka as a unit for the purpose instead of a district effective from the year 1983-84. According to this decision, 101 talukas of the State which are covered under one or more of the following programmes are treated as backward. The rest of the talukas are eligible for the pattern of 50 : 50.

(1) Drought Prone Area Programme

(2) Desert Development Programme

(3) Tribal Area Sub-Plan

(4) 25 backward talukas based on the Hathi Samiti Report and the economically backward talukas classified earlier should be eligible for the pattern of 25 : 75 i.e. they will raise only 25 rupees in order to get 75 rupees from incentive outlay.

6.2.24. Besides, the urban areas are better placed for raising the funds to avail of the incentive outlay. For schemes to be taken up in the urban areas and also for the district level schemes, 50 percent matching contribution is expected to be raised to avail of the matching incentive outlay. The talukawise distribution of the incentive outlay allocated to the District is also done on the same lines adopted for the distribution of discretionary outlay.

Scientific approach towards formulation of proposals

6.2.25. It has been observed by the experience of the first three years that in some of the districts there are certain villages which tend to get neglected in terms of the benefits from investments made in the district by District Planning Boards. With a view to remedying this situation it was decided to utilise the data available from village amenities surveys conducted in all Districts during 1981-82 (updated every year) for preparing scalograms indicating details of amenities existing in the village. These scalograms have been useful in focussing attention to the need of by passed villages in formulating investment proposals at taluka level for different programmes. These devices have also helped to steer the proposals for expenditure out of incentive outlays to more prosperous villages that need not be given the benefit of discretionary outlays, without any matching contribution from the beneficiary villages.

Introduction of new components

6.2.26. Along with the course of implementation of the Decentralised District Planning Programme, it has been the experience that several minor things which could not be reflected in the normal plan get implemented through the programme of Decentralised District Planning. There are, however, certain fields which have remained lopsided and require special attention. For this, the following new components were introduced after 1981-82.

Integrated Development Programme for Urban Poor

6.2.27 There is considerable influx of people from rural area which has created many problems in urban areas. With a view to ameliorating the conditions of the people residing in urban areas (viz. towns and cities having population of 50000 and more) especially the urban poor, it was decided to provide Rs. 2 crores each year from 1982-83 in the Sixth Plan.

6.2.28. In the year 1983-84 the programme for Urban poor was rationalised and made more purposeful by introducing the individual beneficiary schemes on the lines of IRDP and training schemes aiming at the improvement of skills of the urban poor, which can lead them to their economic betterment. The District Planning Boards have been advised to approve individual beneficiary schemes and training schemes to the extent of 33% of the total amount allotted to the concerned urban area and to utilise the remaining 67% amount for community oriented schemes.

6.2.29. The proposals for this programmes were required to be formulated by the concerned municipal bodies (Municipality or Municipal Corporation) and submitted to the District Planning Boards for approval through the Gujarat State Municipal Finance Board in the year 1982-83. During the year 1983-84 since the programme was rationalised, the Director of Cottage Industries, District Industries Centres, Slum Clearance Board, Director of Employment and Training and other Voluntary Agencies were also associated in addition to the municipal bodies for formulation of the proposals for the urban poor programme. It has been decided that this programme should be implemented by the concerned department viz. Urban Development and Urban Housing Department in the Seventh Five year Plan.

Development of Special Backward Areas

6.2.30. In the year 1983-84, a new feature was added to the process of Decentralised District Planning by earmarking specific amount towards development of special backward areas in the State which are spread over the boundaries of more than one talukas and even of more than one districts. An amount of Rs. 0.50 crore was provided during 1983-84 for such areas viz. (1) Khakharia Tappa of Ahmedabad and Mehsana district (2) Pandumevas in Vadodara district (3) Dwarka of Jamnagar district (4) Panchal area of Surendranagar and Rajkot districts (5) Ghed area of Junagadh district (6) Bhal area of Ahmedabad, Surendranagar, Bhavnagar and Kheda districts and (7) Nal kantha area of Ahmedabad and Surendranagar districts. Rs. 7.07 lakhs were distributed to each of the areas except Pandumevas in Baroda District which was given Rs. 7.58 lakhs.

6.2.31. This amount was placed at the disposal of concerned District Planning Boards who were also directed to earmark and spend an equal amount from their incentive outlays for the programmes sanctioned for each backward area. A senior officer who knew the district was entrusted to prepare a report about the area. Based on the report, discussions were held with the M.L.As., local representatives like Jilla Panchayat Pramukhs, Taluka Panchayat Pramukhs and local officers and local work sanctioned.

6.2.32. The following areas were added in this programme in 1984-85.

Name of the Area	Name of the District
1. Ukai Irrigation Project affected resettlement area	Surat
2. Kharapat area	Amreli and Bhavnagar
3. Vagdod area	Mehsana

6.2.33. During 1984-85 for allocation of grants norms have been decided and the final allocation is made on the basis of population and area in the ratio of 1 : 1. In addition, the additional equal amount which the District Planning Boards used to provide for the sanctioned works in 1983-84, was restricted to Rs. 7.00 lakhs per area.

Incentive outlay for primary School-rooms

6.2.34. The Constitution provides that primary education is made available to children between 6 to 14 years of age compulsorily and free of cost. The target of covering all eligible children requires among other things adequate school rooms. To accelerate efforts to provide adequate number of school rooms to ensure that no eligible child in Gujarat has to go without Primary education, it was decided to allot Rs. 4.00 crores to the Director of Education (Primary and Adult Education) for Construction of New School Rooms in the villages having no school rooms having more than one class sitting in one room or having more than 100 students in a class. The amount was given to the Director of Education (Primary and Adult) to link up with the implementation of Rural Landless Employment Guarantee Programme (RLEGP) for construction of Primary School-rooms with is sponsored by the Government of India. An amount to the extent of Rs. 16,000/- against Rs. 21,000/- from RLEGP fund per class room was decided to be allotted for this purpose. A programme for construction of Primary School Rooms in 2002 villages has thus been taken up from the funds of special incentive outlay and RLEGP fund from the Government of India.

III. Seventh Five Year Plan (1985-90)

6.3. Outlays for District Plans

6.3.1. On the lines of the allocation made for district plans in the Sixth Five Year Plan it is envisaged that about 35 percent of the State Plan outlay should, on an average be allocated for district level schemes during the period of the Seventh Five Year Plan. The total size of the State Seventh Five Year Plan having been determined at Rs. 6000 crores, an amount of about Rs. 2451 crores allotted towards District Five Year Plans The outlay for District Five Year Plans is comprised of Rs. crores 2207 (approximately) for normal district level schemes and Rs. 244 crores (approximately) for schemes to be proposed by the District Planning Boards for the Decentralised District Planning Programmes.

Outlay for Decentralised District Planning 1985-90

6.3.2. A provision of Rs. 244.05 crores is made for the Decentralised District Planning Programme. The item wise break-up is as under :

Item	(Rs. in crores)
1. Discretionary outlay	144.60
2. Incentive outlay	50.60
3. Additional incentive to the District Planning Board towards performance in the field of Decentralised District Planning.	14.60

4. Provision for dealing with problems for special backward areas.	19.60
5. Corpus of funds for development of talukas to be declared as most Backward	14.65

TOTAL	244.05

6.3.3. With regard to the discretionary and incentive outlays the District Planning Board have full discretion for formulation, sanction, getting implemented and monitoring the works/schemes of urgent and local needs of the district having regard to the balanced development of the district. The District Planning Boards are expected to sanction mainly to works/schemes relating to the Minimum Needs Programme. During the period of Seventh Five Year Plan it is proposed that the main thrust may be continued to be given for taking up the works/schemes. Schemes relating to the Minimum Needs Programme by the District Planning Boards, from the Decentralised Planning funds. In cases where the requirements for the Minimum Needs Programmes are fully achieved, some further area for operation of the Decentralised Planning Programme will have to be thought of. Having regard to this contingency it is proposed that after basic amenities under the Minimum Needs Programmes are fulfilled, further amenities such as drinking water facilities in the primary school building, Urinals and compound walls for primary school buildings, pipe lines and house to house water connections where drinking water wells/bores are available will be thought of for being financed from the Decentralised District Planning funds.

6.3.4. At present works/schemes are being sanctioned benefitting the revenue villages/group of revenue villages. There exist a large number of habitations/suburbs/hamlets which are not recorded and so they do not get the benefits of this programme. Similarly there are a number of habitations in forest settlement areas and new colonies formed on account of industrialisation which also do not get benefits of this Programme. These left-out areas/newly added areas will also be considered for being covered under the span of this programme in terms of bare minimum needs.

6.3.5. With a view to reducing the gap between the demand and generation of energy, the need to switch over to renewable sources of energy such as solar, wind, bio-gas and wood etc. is increasingly realised. Many experiment to harness renewable sources of energy have been initiated during the Sixth Five Year Plan, including the use of solar and wind energy for cooking, heating and pumping purposes. These areas for renewable sources of energy will be dealt with more extensively. For this purpose it will be essential to associate the District Planning Boards in the task for formulation of proposals for their requirements and thereby making the programme people-oriented. Requisite studies for such programmes especially requirement for specific area, feasibility and coverage of the programme and economic viability of the programme will be made at State level or regional level. On the basis of the findings of these studies programme for a taluka or a village can be formulated in future. It is also proposed to associate the District Planning Boards in the formulation of social forestry programme more intensively for rural areas during the Seventh Five Year Plan, in the areas where fuel wood may not be available easily. Similarly for the fodder development programme the areas where Gauchar development can be done may be explored by which the fodder problem for the cattle may be erased.

6.3.6. During the Sixth Five Year Plan special amount was being set-a-part for encouraging the good performance made by the District Planning Boards in the field of Decentralized District Planning. This additional incentive to District planning Boards was given on the basis of the expenditure incurred from Discretionary and Incentive outlay during the previous year as well as the people's contribution actually raised in cash by the district in the previous year. This element of

incentive has provided good encouragement to the District Planning Boards and hence it is continued during the Seventh Five Year Plan also. A provision of Rs. 14.60 crores is, therefore, provided for this purpose for the period of the Seventh Five Year Plan.

At present for availing of the incentive outlay under the Decentralised District Planning programme the backward talukas have to raise 25 percent matching contribution whereas for remaining talukas as well as district level schemes and all urban areas of the district the matching contribution has to be raised at a rate of 50 percent. In respect of the public contribution not only the amounts raised by the people in the form of cash contribution but the amounts from the Small Savings ad-hoc grants available to the district and the local bodies (Panchayati Raj and Municipal bodies) own funds are also reckoned for matching contribution from taluka / district for specified objectives. The report of the Committee for Development of Backward Areas has been submitted to the Government. This report contains amongst other recommendations recommendation for the revision of the rate of peoples' contribution as the graded scale in relation to the backwardness of the taluka.

While a formal decision on this recommendation is awaited, it would be essential to recognise the need for a higher degree of differentiation among various categories of backward talukas.

Special Backward Areas

6.3.7. It is proposed to provide Rs. 19.60 crores for the development of special backward area in the State spanning over more than one talukas or districts and exhibiting certain common characteristics of backwardness. As recommended by the Committee for the Development of Backward Areas, very few new areas may be considered for being included in this programme in addition to the existing areas under this programme during the Seventh Five Year Plan. Major works to make up for lags in such areas as roads, drinking water and irrigation facilities water logging will be taken up according to the requirements of the area.

Corpus of funds for most backward talukas

6.3.8. It is proposed to provide Rs. 14.65 crores for backward talukas which may be declared as most backward after consideration of the recommendations of the Committee for the Development of Backward Areas. These funds are proposed to be utilised for innovative or experimental projects particularly by way of application of science and technology in these talukas.

District Planning Boards

6.3.9. With a view to making planning at district level more realistic and meaningful, District Planning Boards were constituted at District level in 1973. Having regard to the importance attached to the Decentralisation of Planning Process and the need for ensuring the integration of District Plans with the State Plan, the District Planning Boards have been reconstituted on 11th September, 1980 and made broad based. The reconstituted District Planning Boards have a varied and highly representative character. The composition of the present District Planning Boards is thus as under :—

- | | | |
|-----|---|---------------|
| (1) | A Minister of State Government
(Not belonging to the District) | Chairman |
| (2) | District Collector | Vice-Chairman |

(3)	President of the District Panchayat	Co--Vice-- Chairman
* (4)	Taluka Panchayats Presidents of two or three talukas of the District (Two for small District and three for large District)	Member
(5)	All M.L.A.s. elected from the District	Member
(6)	All M.P.s. elected from the District	Member
* (7)	President of one of the Municipalities in the District	Member
(8)	Mayor of the Municipal Corporation	Member
(9)	Municipal Commissioner	Member
* (10)	President of one of the Nagar Panchayats of the District	Member
* (11)	An expert from a Research Institution	Member
(12)	A representative of the District Lead Bank	Member
(13)	Chairman, District Central Co-operative Bank	Member
(14)	District Development Officer	Member
(15)	Project Administrator Tribal Area Sub-Plan	Member
(16)	A Member of the State Planning Board	Member
(17)	Chairman of Social Justice Committee of the District	Member
(18)	Vigilant Female Member of Zilla Panchayat	Co-Opt. Member
(19)	District Planning Officer	Member Secretary
(20)	District Statistical Officer	Additional Member-Secretary
(21)	Officer of the GAD (Planning Division)	Observer

*As may be nominated by Government

Minister (s) from the district representative of the Reserve Bank of India and Divisional Controller of the Gujarat State Road Transport Corporation are expected to be invited to attend the meetings of the Board.

Moreover, a small Executive Planning Committee for ensuring effective working of the District Planning Board has also been constituted as under :—

(1)	District Collector	Chairman
(2)	President of District Panchayat	Co-Chairman

(3)	MLAs of the District (by rotation)	Member
(4)	District Development Officer	Member
(5)	Project Administrator Tribal Area Sub-Plan	Member
(6)	District Planning Officer	Member-Secretary
(7)	District Statistical Officer	Additional Member-Secretary

6.3.10. Two Sub-Committees, one for District Manpower Planning and Employment Generation and the other for programme of the Urban Poor have also been formed for assisting the District Planning Boards in their working.

6.3.11. The functions of District Planning Boards are as under :—

(1) To prepare Perspective Plan, Five Year Plan and Annual Plan of the District ensuring balanced development of the district by continuous study of the socio-economic and cultural environments of the district, keeping in view and assessing the local resources of the district and formulate the programme as an integral part of the frame work of the broad policy of the State for satisfying the requirements of the local areas reasonably and realistically.

(2) To frame specific schemes in various fields keeping clearly in view their size and form with reference to the priorities fixed by the State Government and to pay special attention to the upliftment of the economically backward and weaker sections of the society in the District Planning.

(3) To ensure that the Planning becomes realistic and willing and maximum participation and help of local bodies, industrial houses and people from different strata of society becomes available in the formulation and implementation of the Plan Programmes.

(4) To undertake a regular and effective review and evaluation of all the district level schemes and programmes being implemented in the district and on the basis thereof to strive continuously to remove bottlenecks and take remedial measures for the successful implementation of each scheme.

(5) Amongst the above programmes the National Minimum Needs Programme has been envisaged mainly keeping in view the needs of the rural areas and the benefits of the programme to be received by rural areas. It is, therefore necessary for the Planning Board to undertake special monitoring and evaluation of the MNP.

6.3.12. In addition, the District Planning Board is expected to perform the following functions also :—

1. To identify the difficulties experienced in the implementation of schemes and take up the matter at the appropriate level to remove such difficulties.

2. To identify the missing links in the infrastructure for implementation of the family oriented programme and to formulate appropriate schemes to provide these links.

3. To review the progress of implementation of family-oriented programme in the District every year and ensure that the benefits accrue to the rural poor.

District Planning Organisation

6.3.13. Each District Planning Board has been provided with a small complement of staff headed by a District Planning Officer. The District Planning Officer who works under the direct supervision of the Collector is a Class-I Officer drawn from the Gujarat Administrative Service, Gujarat Statistical Service or Gujarat Agriculture Service. He is usually a senior officer with considerable experience in development work. He is assisted by the following staff :-

Research Officer	(Class-II)	1
Research Assistant	(Class-II)	1
Deputy Mamlatdar	(Class-III)	1
Statistical Assistant	(Class-III)	2
Sub-Auditor	(Class-III)	1
Clerk	(Class-III)	1
Typist	(Class-II)	1
Jeep Driver	(Class-III)	1

6.3.14. In order to ensure effective monitoring of MNP projects, one post of Research Assistant and one post of statistical Assistant have been created for each District Planning Unit. To start with, one post of Research Assistant in 10 districts and one post of Statistical Assistant in 9 districts have been sanctioned during 1982-83.

6.3.15. In order to have effective maintenance and systematic handling of the account matters, the post of Sub-Auditor has been upgraded to the post of Deputy-Accountant in some districts as per demand.

6.3.16. The District Planning Officer is expected to monitor MNP Projects as well as projects financed by District Planning Board by visiting the sites of such projects.

CHAPTER VII

EMPLOYMENT AND MANPOWER SITUATION

8.1. Introduction

8.1.1. The generation of gainful employment through integration of the sectoral production plans with employment plans and enlargement of on going employment programmes under a National Employment Programme to cover specific target groups have to be emphasized in the Seventh Plan. Also, as laid down in the National Level Approach Paper, the reduction of the percentage of people below the poverty line to less than 10 by 1994-95 will continue to be the goal. Accordingly it becomes imperative first to look at the dimension of the problem of unemployment.

8.2. Dimension of the Problem

8.2.1. The employment/unemployment condition prevailing in any area is to be viewed in context of the socio-economic situation in that area. As revealed by the results of 1981 population census, only 31.1 percent of the population lives in urban area in Gujarat State. Thus, the majority of the people in Gujarat live in the rural area. The economy of which pre-dominantly depends on agriculture. Against the total population of the State the percentage of workers is 41.07. Of the total workers, the agricultural labourers are of the order of 14.77 percent. In the case of urban job seekers, a sustained increase has been observed.

8.2.2. The National Sample Survey Organisation has been collecting statistics on unemployment through its regular labours inquires and accordingly it has been providing estimates of labours force. Thus, the magnitude of unemployment has been influenced by the concepts, definitions and procedures of enumeration adopted in each round. The labour force is estimated on the basis of usual status participation rates of the 32nd round of N.S.S., yearwise data on labour force by sex for rural and urban area are shown in statement-I. The estimate of chronic unemployment are based on the usual status concept and estimates of under-employment are worked out on the basis of daily status concept. Thus, the estimates of employment and under employment in the beginning of the Seventh Plan (1985-1990) are worked out as under:

	(Rs. in lakhs)
(a) Chronic unemployed	1.64
(b) Under-Employed	6.32
Total	<hr/> 7.96

8.2.3. For assessing the total requirement of employment generation for the five year plan both the unemployment prevailing at the beginning of the Plan period and the magnitude of those joining the labour force for the first time during the Plan period has to be taken into account. As revealed by statement-I the total labour force in the State in 1985 is estimated to be 139.34 lakhs, while during the last year of the Seventh Five Year Plan the total labour force is estimated at 157.46 lakhs. Thus the new entrants to the labour force are estimated at 18.12 lakhs during the Seventh Plan, 1985-90.

8.2.4. While employment for the full year would be required for the chronic unemployed (1.64 lakhs) 120 days of work in a year would be necessary to provide

full employment to the under employed (6.32 lakhs). Thus for 6.32 lakhs under employed 2.78 lakhs person years of work will be needed. The total requirement of person years of employment during the Seventh Plan works out to about 6.74 million (22.10 lakhs) person years for backlog plus 45.30 lakhs person years for new entrants).

8.2.5. There has been a steep rise in the numbers of educated unemployed more so in the case of categories of SSC and under graduates as per the Live Register data of Employment Exchanges. However, there are certain limitations to this data. These limitations are (i) the live register includes persons already employed and seeking better jobs, (ii) some of the job seekers are Registered at more than one exchange, (iii) some of the candidates get their names registered, while pursuing further studies, and (iv) All unemployed persons are not registered with employment exchanges. Despite these limitations, live register data reveal the magnitude of job seekers especially in urban areas and that of the educated unemployed. The data regarding educated job seekers obtained from the live register of the employment exchanges is given in the following table :—

(figures in '000)

	No. of job seekers on live register as on 1st April					
	1980	1981	1982	1983	1984	1985
1. SSC and under-graduates	205	234	261	284	312	346
2. Diploma-Holders	3	3	3	3	4	4
3. Graduates and post-graduates in Arts, Science, Commerce and Law	36	35	32	30	38	38
4. Graduates and Post-graduates in technical and professional subjects	10	8	7	6	7	6
Total ..	254	280	303	323	361	394

8.2.6. Looking to the limitations of live register data, the application of a correction factor based on past surveys would Field a less inaccurate the magnitude of the educated unemployed to some extent. The State Bureau of Economics and Statistics had conducted a comprehensive survey of the educated unemployed in Bharuch district in 1970. In this survey, both rural and urban areas as also the educated job seekers registered with employment exchanges and those not registered with employment exchanges were covered. Another survey was carried out in the districts of Ahmedabad, Surat and Amreli in 1980 by the Directorate of Employment and Training, However in this survey only the job seekers who registered themselves with employment exchanges were covered.

As the Bharuch survey is more comprehensive in its coverage, (It covered persons registered as also not registered with employment exchange) in the absence of any other systematic and comprehensive surveys leading to appropriate correction factor, "10% more than the number on L. R." as revealed by the Bharuch Survey would have to be used as the correction factor for Estimating the actual magnitude of the

educated the unemployed on the live register of employment Exchanges. Applying this correction factor, the number of candidates on the live register of employment exchanges as on 1st april, 1985 would stand revised as under :-

(In '000)

	As on April 1st, 1985	
	According to live Register	Revised by applying correction factor
1. SSC and under graduates	346	380
2. Diploma holders	4	4
3. Graduates and post graduates in Arts, Science, Commerce and Law.	38	42
4. Graduates and post graduates in technical and professional subjects	6	7
Total ..	314	433

8.2.7. From the above table, it emerges that more than 4.33 lakhs educated persons would be seeking jobs in the beginning of the Seventh Five Year Plan. To this some proportion of the number of persons coming out from the educational institutions every year after completing certain level of education would have to be added. However, not all who complete a certain stage of education would be seeking work. In fact, some employed persons take up courses leading to formal educational qualifications mainly with a view to further their career prospects. A sizeable proportion of women securing degrees and diplomas do not seek jobs especially after they are married. Some post-graduate courses, notably in engineering and medicine, are pursued on account of the attractive stipends and or part time employment that go with studentship. Statistics from the special census of degree holder (1971 Census) provide to some extent a base to work out the percentages of such persons seeking and not seeking work. However this special census data is also that not comprehensive since it is difficult to determine in the absence of data from the census exactly what proportions of matriculates do not seek jobs. On the other the number of SSC passed job seekers on the L. R. record shows an upward trend.

8.3. Employment strategy for the Seventh Plan, 1985-90

8.3.1. The Plan strategies and priorities in the State are always guided by the strategies and priorities adopted at the National level. The approach of the Nation to the Seventh Plan as brought out in "The Approach to the Seventh Five Year Plan 1985-90" emphasize the need :

(1) to focus more clearly on productive employment as well as permanent and continuing employment in order to generate income and alleviate poverty.

(2) To promote self-employment.

(3) To expand opportunities for acquiring new skills through and education for skill formation with a focus on the development of intermediate level. technical skills amongst matriculation and secondary school levels.

(4) To upgrade the traditional skills of rural artisans.

(5) To organise training facilities for categories of manpower where critical shortages have been identified.

(6) To promote the use of less capital intensive and more labour intensive techniques.

(7) To integrate sectoral production plans with employment plans and to extend on going employment programmes to cover specific target group.

(8) To match manpower planning with educational planning to avoid imbalances in regard to trained educated manpower.

8.3.2 With this background the main elements of the employment strategy may be set out thus.

8.3.2.1. A sizeable proportion of the rural population is under employed. There is some chronic unemployment also in the rural areas. It is necessary to provide jobs to the unemployed in the rural areas and part time employment to the under-employed in these areas both in the interest of social peace and in order to raise the standard of living in the rural areas. The need is to provide employment in the rural areas to all those who are willing to do manual work as also to harness science and technology to improve productivity in the agricultural sector.

8.3.2.2. Consistent with this goal soil conservation including contour bunding, Nalaplugging, terracing, reclamation of khar land, water shed management works have been planned to provide sizeable employment to manual workers and to improve the productivity of land. The State Land Development Corporation has been established to co-ordinate and accelerate this programme. In addition, Minor Irrigation and Water development viz. construction of tanks, bandharas, tube wells as well as medium and minor irrigation schemes have been planned to provide employment to the manual workers. The implementation of these programmes will also lead to creation of jobs for technical and non-technical educated job seekers. These works are intended not only to create jobs but also to increase the job potential of the areas in future by more intensive agriculture and the spin-of effects of income generation.

8.3.2.3. Science and technology have to be harnessed through revamping the extension service, Increasing the soil testing facilities, farmer's training, and the command area development programme. Besides generating direct employment for technical and manual workers this would also lead to dissemination of knowledge of scientific methods of agricultural and water management.

8.3.2.4. A considerable emphasis has been placed on animal husbandary, fisheries and scheme for improving the veterinary services, for artificial insemination, intensive cattle development in some areas, poultry development, sheep development, feeds and fodder development, cattle breeding on State cattle farms and development of marine and inland fisheries have also been included to provide employment to technical and non technical and personnel as well as manual workers and part time employment to the under employed in the rural areas. This will give rise to dairy development which will provide benefits large numbers of milch cattle owners in the rural areas.

8.3.2.5. The development of forestry is also important for rural and especially tribal areas and the emphasis is on plantation including community forestry, construction of godowns and buildings, development of sanctuaries, development of communication and training of staff to provide employment as well as to promote the scientific harvesting of forest resources.

8.3.2.6. Focus is also maintained on the weaker sections of society especially scheduled castes and scheduled tribes, who are to be given seeds, pesticides, fertilisers, bullocks, agricultural implements and assistant developing irrigation through subsidy schemes.

8.3.2.7. The special programmes for rural development consisting of the National Rural Employment Programme and the drought prone areas programmes, focus on employment generation in the rural areas especially for the employment of the people below poverty line, integrated rural development through removal of infra-structural bottlenecks, training of rural population in present day skills and facilitating full as well as part time employment. The implementation of the 100% centrally sponsored programme viz., Rural Landless Employment Guarantee programme would also play a vital role here. Rural Areas would also benefit from :

1. Programme of the Education Department for primary, secondary and higher secondary schools.
2. The rural electrification programme, which will generate employment primarily for manual workers.
3. Development of khadi and village Industries, handlooms, handicrafts, mini industrial estates, Mineral development in rural area.
4. Development of roads and bridges and road transport, rural housing for the under privileged Section of rural Society.

8.3.2.8. These programmes in the rural areas would create avenues of employment for manual workers as well as technical and non-technical personnel enhance the potential for further employment and serve to provide some of the minimum needs of the population.

8.3.2.9. Admittedly some of the employment opportunities from programmes in the rural sector would go to urban educated job seekers for skilled and semi skilled.

8.3.2.10. The schemes of housing, urban development, sewerage and water supply, ports, light houses and shipping would also lead to employment generation for the urban skilled, semi skilled, and unskilled as well as technical and non technical job seekers. The margin money scheme and the scheme of financial assistance to technically qualified potential entrepreneurs implemented by the District Industries Centres and State level Industrial and Financial Corporations would encourage self employment in urban areas to some extent and relieve the pressure of the educated unemployment.

8.3.2.11. All the sectors would gain from schemes of vocational training which are being intensified to generate more manpower with needed skills.

8.3.2.12. Special efforts would be made to augment the number of local persons recruited in the armed forces and in Central Government undertakings located in the State. Measures to deal with persistent short falls in securing scheduled castes and scheduled Tribes candidates against reserved vacancies particularly in Central Public Sector undertaking would be intensified by suitably strengthening the administrative machinery. Counselling services to promote self employment and vocational training would also be strengthened.

8.4. Employment Generation Plan Investment

8.4.1. In keeping with the requirement of massive employment generation under plan programmes, the State's Plan for 1985-90 envisages a large investment on employment intensive scheme.

The broad dimensions of these efforts are described below.—

	Seventh Plan 1985-90
I. Total outlay (Rs. in crores)	6000.00
Outlay on schemes with a high employment component (Rs. in crores)	1314.90
II. Employment Generation.	
Construction. (Lakh person days)	7380.03
Continuing. (thousand persons year)	843.00

8.4.2. The outlays of sector/sub-sectors having schemes with a high employment component forms 50.25% of the total of Rs.6000.00 crores for the Seventh Plan, 1985-90. Sectorwise and sub-sectorwise estimates of employment generation are indicated in statement II. Sizeable outlays, have been provided on Water Development (Rs. 1462.03 crores) Road, and bridges (Rs. 257.85 crores), Minor irrigation (Rs. 134.55 crores), Housing (Rs. 164.42 crores), Forest (Rs. 129.64 crores); Soil and Water Conservation (Rs. 57.63 crores) Mid-day meals (Rs. 550 crores), Rural Development Programme (Rs. 113.80 crore) which are employment intensive in character.

8.4.3. The employment estimates do not include employment generation attributable to:—

- (i) Central Government investments within the State.
- (ii) Expenditure on Central Sector/Centrally sponsored schemes.
- (iii) Corporate public sector investment.
- (iv) Private Sector investment.
- (v) Investment of local bodies and Panchayats and
- (vi.) Expenditure on the non-plan account of the State Government.

8.4.4. Similarly, indirect employment resulting from Plan investment and the activities of Government and semi Government agencies operating in the State, are also not included in these estimates. The lack of a firm data-base precludes qualification of the employment that would be generated from these sources during the Plan period.

An Overview

8.4.5. The estimates set out above thus cover only a small segment of economic activities arising from investments in plan programmes, and leave out substantial

indirect employment. Even then, total employment opportunities estimated to generated during the Seventh Plan is of the order of 35.38 lakh persons year (52.49% of the requirement). Considerable job opportunities are also likely to arise from the expansion of irrigated agriculture, introduction of high yielding varieties, and ancillary activities such as animal husbandary, dairy, poultry and fisheries. The employment potential in these spheres is really large. On the other hand, it has also to be recognised that the geographical area where employment opportunities might be created plays an important part, since these areas may not coincide with the area where job seekers are available. There would also be discrepancies between the period for which under employed persons might be available and willing to work and the period for which employment opportunities would be available at a given location. Such other discrepancies have to be kept in view while attempting an analysis of the requirement in conjunction with estimates of the direct employment potential of the Projects/Programmes incorporated in the Plan.

8.4.6. Despite this limited coverage of the economic activities included in the proposals of State Plan programmes for the Seventh Plan the investments in the different sectors of development are expected to lead to employment generation as under:

Sector/Sub-sector	Estimated employment generation	
	Construction (lakh person days)	Continuing (thousand person years)
i. Agriculture and Allied programme.	684.52	55
ii. Rural Dev. Programme	251.85	1
iii. Irrigation & Flood Control	5540.60	..
iv. Power	46.52	6
v. Industries and Minerals (villages and cottage industries)	..	312
vi. Transport and communications	409.12	11
vii. Social and community Services	447.42	43
viii. Mid-day meal	..	415
Total ..	7380.03	843

The investment in these sector/sub sectors would not only create the direct employment opportunities but would also add to the available infrastructure and other facilities which in turn would create indirect employment. Investment on power development would ease one of the bottlenecks in agricultural and industrial development. The increase in transport and communication facilities would add to the required infrastructure. In the Industries sector suitable emphasis is laid on development of small and cottage industries. Training and institutional linkages are envisaged towards promoting self employment which will benefit the under-privileged sections of society. Skill formation training would be augmented to increase the supply of trained industrial workers as also to reduce the number of inexperienced educated job seekers.

8.4.7. The system of decentralised district level planning already introduced would be made more effective through providing an employment focus in the formulation of the District Plan.

8.5 Manpower

8.5.1. In a planned economy, it is necessary to balance the demand and supply of technical manpower. Lack of suitably trained personnel is a major obstacle in mounting development programmes.

8.5.2. The availability and requirement of the principal categories of skilled manpower during the Seventh Five Year Plan period (1985-90) are presented in statement III.

8.5.3. In migration and out migration in respect of which data are not available, has been overlooked in the computations in the paragraphs that follow.

Engineering Personnel :

8.5.4. The requirement and availability of degree and diploma holders in engineering have been worked out on two alternative assumptions viz. growth rate of 5.1% based on observed trend during 1970-71 to 1982-83 for non-agricultural sectors (excluding some minor sub-sectors) and alternative targeted growth rate of 7.1% for non-agricultural sectors for Seventh Five Year Plan (1985-90) on this basis, the requirement of graduates and diploma holders together (at growth rate of 5.1% and 7.1% by the end of the Seventh Five Year Plan, 1985-90 would be 87,127 and 1,26,810 respectively.

8.5.5. It appears that there will be a marginal shortage of 2724 graduates calculated on the basis of the lower growth rate of 5.1%. The shortage would be 19978 graduates on the basis of higher growth rate of 7.1%. For Diploma Holders there would be surplus of 10024 at the lower growth rate of 5.1%. However, there would be shortage of 12,405 Diploma holders at the higher growth rate of 7.1%. The requirement of degree and diploma holders during the years 1985-90 for the Narmada Irrigation Project will further widen the gap between requirement and availability in respect of Engineering Graduates.

8.5.6. The main programme included in the Seventh Five Year Plan, 1985-90 which indicate areas where remedial measures need to be taken towards correcting imbalance between demand and supply, are as under:--

(i) To identify and introduce new technical courses in selected institutions to suit local industrial needs particularly in emerging fields such as bio-medical, engineering, petro-chemicals, polymer technology, power-electronics, industrial engineering, computer science, marine engineering and new sources of energy such as solar wind and tidal energy to induce entrepreneurship and appropriate technology leading to labour intensive self-employment.

(ii) To provide additional facilities for technical/vocational education for women especially in tribal areas.

(iii) To introduce certificate courses in need of emerging and diversified subjects.

(iv) To provide additional facilities for teaching basic electronics at secondary level for vocational courses of electronics-technicians, etc.

Medical Personnel

8.5.7. On 31st December 1984, the number of doctors registered with the Gujarat Medical Council was 17,257 indicating a doctor-population ratio 1: 2063 as

against the norm of 3000 to 3500 prescribed by the Mudaliar Committee. These figures should however, be viewed with some caution as they do not fully reflect attrition due to migration, retirement or death. Although the total number of the doctors in the State seem to be sufficient difficulties persist in securing the services of the post-graduates/specialists for teaching jobs. There is no overall shortage of doctors but the shortage seems to be selective.

8.5.8. The training and development of community health workers is a major innovation in the field of public health in rural areas. The main object of this scheme is to provide training in the basic knowledge of the health, hygiene and First Aid and Treatment of minor ailments to literate persons in the village. This scheme is being implemented through out the State and training is given in all primary Health Centres. About 25091 C.H.V. have been trained by the end of 1984-85.

8.5.9. As far as Ayurved graduates are concerned, the problem of unemployment appears to be quite acute. The backlog of unemployed Ayurved graduates is increasing every year. As on 31st December, 1984, there were 552 Ayurvedic doctors on the live register of the Employment Exchanges. The out-turn during the plan period (1985-90) is expected to be 1200. The demand for Ayurved Graduates during Five Year Plan, 1985-90 is estimated at 68. Given the limited opportunities in the Government Health Care System and negligible prospects of private practice in Urban areas or emigration overseas a self-employment in rural areas would seem to be one of the major outlet for the surplus.

8.5.10. The outturn of degree holders in Pharmacy is expected to be 645 during the Five Year Plan 1985-90. The outturn of the Diploma Holders is expected to be 1970 during the plan period. There were 65 degree holders and 308 Diploma Holders on the live register as on 31st December of 1984. In terms of survey conducted by the Indian Pharmacists Association, there were about 5000 unqualified pharmacists in the State. Under the Amendment to the Pharmacy Act 1984, no person other than a registered pharmacist is allowed to compound, prepare, mix, or dispense any medicine on the prescription of a registered medical practitioner after the 1st September, 1984. This amendment would affect about 5000 unqualified pharmacists. By the end of August 1984 as many as 592 unqualified pharmacists have undergone training. Since all the eligible unqualified pharmacists to be trained have been trained, the training have been discontinued after August 1984.

Agricultural Personnel

8.5.11. For the implementation of the programmes for agricultural production, soil conservation, command area development and minor irrigation, the demand of agricultural graduates is estimated at 1480 during the Plan Period 1985-90. Against imated at 1480 during the Plan Period 1985-90. Against this the supply is expected to be 2150. This will leave a surplus of 670 Agricultural Graduates during the Plan period, 1985-90.

8.5.12. Similarly, the demand for Agricultural Diploma holders during 1985-90 is estimated at 1864 against which supply is expected to be 2000 during Five Year Plan 1985-90. There would be thus a surplus of 136 diploma holders during Five Year Plan 1985-90.

8.5.13. A large number of agricultural graduates and diploma holders are likely to be absorbed in banking, in the fertilisers industry, and in research work. Some of these would take up self-employment.

Animal Husbandary

8.5.14. For implementing the schemes of cross-breeding programme with sophisticated techniques, there would be a demand for veterinary and animal husbandary

personnel. The reliance on supply of milch cattle as a means of improving the economic conditions of small marginal farmers, landless labourers, tribal and scheduled caste members and enhancement of milk production are likely to augment the demand for veterinary services on a large scale. Moreover the enlargement of milk chilling collection and processing activities is also likely to lead to a demand for veterinary services on a large scale. The estimated demand for Veterinary graduates and post-graduates in the public sector during 1985-90 is 394. The anticipated supply would be 600 during the Plan Period 1985-90. The veterinary and Animal Husbandary College at Sardar Krishinagar (Dantiwada) has been started in 1982-83 with an intake of 20. The duration of the course is 4 years. Thus after 3 years more graduates will be available. This will further add to the excess supply of veterinary graduates and post-graduates.

8.5.15. The demand of Livestock Inspectors during the plan period 1985-90 is estimated at 237. The supply is expected to be 240. The supply would be adequate to meet with the demand.

8.5.16. The training Institutions for field assistant are under the purview of the Department of Animal Husbandary. The courses are conducted, as and when necessary, to meet with the demand of sanctioned posts.

Dairying Personnel

8.5.17. A degree course in Dairying Personnel is offered by one institution in the State with a sanctioned intake of 40. The anticipated outturn during 1985-90 is 200. The average demand for Dairying Personnel is estimated at about 20 for the plan period, 1985-90.

Forestry Personnel

8.5.18. The increasing emphasis on the programme of afforestation, social forestry, forest development is leading to an increase in the demand for supervisory personnel.

8.5.19. A full-fledged college for training Range Forest Officers with an intake capacity of 40 was started at Rajpipla during 1979-80. The estimated supply of R. F. O. during 1985-90 would be 200 against in estimated demand of 63 during 1985-90.

8.5.20. The demand for foresters is estimated at 185 during 1985-90 as against the anticipated supply of 1200.

8.5.21. There are two training institutions (one at Kakrapar, in Surat District, and the other at Dungarda in Dangs District) imparting training to Forest Guards with annual intake of 360. The demand for Forest Guards is estimated at 344 as against the anticipated supply of 1380 during the Five Year Plan, 1985-90.

Teaching Personnel

8.5.22. Both the technical categories *viz.*, Bachelor of Education (B. Ed.) and Primary Teaching Certificate (P. T. C.) are the surplus categories. This situation is likely to continue during the Plan Period 1985-90.

8.5.23. Against the anticipated supply of 41050 trained teachers for primary schools during the Five Year Plan 1985-90 the demand during Five Year Plan 1985-90 is estimated to 26650 leaving a surplus of 14400.

8.5.24. The anticipated supply of trained secondary school teachers during the Five Year Plan 1985-90, is 21215 against the estimated demand of 4000 leaving surplus of 17215.

8.5.25. The need for reduction in intake capacity of training institutions for primary and secondary school teachers is recognised.

Skill Formation Programme

8.5.26. For the unskilled personnel, a concepted programme of skill formation is in operation under a variety of programmes. Short term and medium term courses are being run in various institutions of the State.

8.5.27. During the Seventh Plan, an increase of 10000 seats is proposed in the existing ITIs, 5000 seats under the National Apprenticeship Training Scheme, 2000 seats for ITI type courses on grant-in-aid basis to private agencies, 3000 seats under Career Development Courses and 5000 seats under the Scheme of Induction Training for Industrial Employment.

STATEMENT--I

Distribution of Labour (15 years and above) in 1985 to 1990 by Sex for Rural and Urban Areas.

(Figures in '00)

Sr. No.	Yasr	RURAL			URBAN			STATE		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8	9	10	11
1	1985	67591	34125	101716	32280	5338	37628	99871	39473	139344
2	1986	69207	35084	104291	33492	5581	39073	102699	40665	143364
3	1987	70570	35828	106398	34650	5781	40431	105220	41609	146829
4	1988	71782	36543	108325	35849	5989	41838	107631	42532	150163
5	1989	73442	37312	110754	37093	6201	43294	110535	43513	174048
6	1990	74553	38110	112663	38366	6426	44792	112919	44536	157455

STATEMENT II

*Broad Estimates of District Employment Generation through State plan Proposals
for the Seventh Five Year Plan 1985-90*

(Rs. in lakhs)

Sr. No.	Name of the Sector/ Sub-Sector	Outlays for Seventh Five Year Plan 1985-90		Estimated Employment Generation	
		Outlay	On Emp- loyment intensive scheme	Construc- tions (in lakhs per- sons days.)	Continu- ing (Persons years)
1	2	3	4	5	6
1. Agriculture and Allied Services					
1.	Research and Allied Services	3033.00	800.00	9.90	1043
2.	Crop Husbandary	7720.00	3948.84	...	3459
3.	Soil and Water Conservation	5763.00	5399.00	166.05	275
4.	Animal Husbandary	1820.00	537.20	3.10	1403
5.	Fisheries	2426.00	1228.00	18.57	48658
6.	Forests	12964.00	12519.00	489.90	...
Total		33726.00	24432.04	684.52	54838
Rural Development					
1.	Integrated Rural Development programme	5284.00	2918.08	10.55	--
2.	National Rural Development programme	2035.00	1018.00	100.00	--
3.	Drought prone Area Programme	1290.00	877.00	39.36	--
4.	Desert Development programme	246.00	135.00	10.28	--
5.	Strengthening & Supporting Special programme Organisation	1780.00	1780.00	...	2446
Total		10635.00	6728.09	160.19	2446
2.	Land Reforms	910.00	910.00	..	1713
Total Rural Development (1+2)		11545.00	7638.09	160.19	4159

2

3

4

5

6

3 Irrigation and Flood Control

1. Water Development (Irrigation)	147853.00	147853.00	4875.00	..
2. Minor Irrigation	13455.00	12945.00	598.00	..
3. Command Area Development	6067.00	1527.00	122.00	..
Total	167375.00	162325.00	5595.00	..
4. Power Development	145000.00	5000.00	46.00	6159
5. Industries and Minerals	25785.00	12080.00	..	312047

6. Transport

1. Ports, light houses & Shipping	3036.00	1036.00	12.00	588
2. Roads and Bridges	25785.00	25785.00	389.12	..
3. Road Transport	8494.00	8494.00	8.00	10535
Total..	37315.00	37315.00	409.12	11123

7. Social & Community Services

1. General Education	8676.00	5035.55	..	31665
2. Technical Education	1820.00	1711.00	..	450
3. Medical and public Health	10314.00	2160.00	..	11066
4. Sewerage and Water Supply	16866.00	5622.00	161.66	..
5. Housing	16442.00	15835.00	251.17	..
6. Capital project	3337.00	3377.00	34.49	..
7. Labour and Labour Welfare	4911.00	2149.00	..	1820
8. Nutrition	4550.00	1550.00	0.10	186
Total..	66916.00	37390.14	447.42	45167
8. Mid-Day Meals	55000.00	18330.00	..	415000
Grand Total..	542662.00	304510.27	7342.25	848493

STATEMENT : III

Demand and Supply of certain selected categories of Technical Manpower during Five Year Plan (1985-86 to 1989-90)

Disciplines	Categories of Personnel		Demand during F. Y. P.	Supply during F. Y. P.	Surplus(+) Deficit(-)
1	2		3	4	5
Engineering	Degree in Engineering	*a	37881	35157	-2724
		b	55135	35157	-19978
	Diploma in Engineering	a	49246	59270	+10024
		b	71675	59270	-12405
Agriculture	B.Sc. (Agril.)		1480	2150	+670
	Diploma (Agril.)		1864	2000	+136
Forestry	Indian forest Officers (IFS) Gujarat Forest Officer (GFS)		60	**	**
		Range forest Officers	63	200	+137
		Foresters	185	1200	+1015
		Forest guards	344	1380	+1036
Veterinary	Veterinary Graduates & Post Graduate		394	600	+206
		Live stock Inspectors	237	240	+3
		Field Asstt. Veterinary B. sc. (Dairy Tech)	3 20	*** 200	*** +180
Teaching	Secondary School Teachers.		4000	21215	+17215
	Primary school Teachers		26650	41050	+14400

*For degree and diploma, demand and supply figure indicate total number required and total availability as on 31st March, 1990.

** Training of IFS and GFC Officers is imparted by Central Government, So supply estimates are not given.

*** There are 4 training centres with intake of 65. Training is conducted as per need of Department.

Note.— (a) Estimates at 5.1% trend growth rate in state Domestic product for non-agricultural sectors (excluding some minor sub-sectors).
(b) Estimates at 7.1% targeted growth rate for non-agricultural sectors of domestic product for Five Year Plan (1985--86 to 1989--90)

STATEMENT IV

Requirement and availability of Engineering personnel in 1985-86 and 1989-90

Category	Trender growth Rate 5.1 %						Targetted growth rate 7.1 %.					
	Position in 1985-86			Position in 1989-90			Position in 1985-86			Position in 1989-90		
	Require- ment	Availa- bility.	Surplus (+) or Deficit (-)	Require- ment	Availa- bility	Surplus (+) or Deficit (-)	Require- ment	Availa- bility	Surplus (+) or Deficit (-)	Require- ment	Availa- bility	Surplus (-) or deficit (-)
1	2	3	4	5	6	7	8	9	10	11	12	13
Graduate	30449	30073	-376	37881	35157	-2724	41863	300078	-11790	55135	35157	-19978
Diploma	39584	48203	8619	49246	59270	+10024	54422	48303	--6219	73675	59270	-12405
Total ..	70033	78276	+8243	87127	94427	+7300	96285	78376	-18009	128810	94427	--32383

STATEMENT V

Statement showing sanctioned strength, actual admissions, probable out-turn during 1985-86 to 1990, number on live register and total availability during 1985-90.

Category/ Course	Sanctioned strength 1983	Actual admission 1983	Estimated out-turn during the plan period				1989-90	Total (4 to 8)	Total on L. R.) as on 31-12-84	Total availa- bility 1985-90 (1+10)
			1985-86	1986-87	1987--88	1988-89				
1	2	3	4	5	6	7	8	9	10	11
Engineering										
Post Graduate										
Civil	76	47	16	16	16	16	16	80	1	81
Mechanical	46	35	13	13	13	13	13	65	2	67
Electrical	39	23	7	7	7	7	7	28	..	28
Textile Engineering	10	6	13	13	13	13	13	65	..	65
Metallurgy	10	10	1	1	1	1	1	5	..	5
Graduate										
Civil	814	918	708	708	708	708	708	3540	365	3905
Mechanical	553	625	587	587	587	587	587	2935	276	3285
Electrical	346	389	264	264	264	264	264	1320	101	1421
Chemical	110	125	136	136	136	136	136	680	38	718

1	2	3	4	5
Instrumentation control	15	16	17	17
Metallurgy	40	61	38	38
Electronics communication	40	45	38	38
Textile Engineering	20	32	43	43
Textile Technology	40	51	52	52
Production Engineering	20	19	19	19
Electronics	146	162	61	61
Architecture	70	68	83	83
Textile chemistry	10	22	14	14
Post Graduate Diploma				
Air conditioning & refrigeration	..	..	1	1
Planning	25	19	15	15
Law cost Housing	5	2	4	4

6	7	8	9	10	11
17	17	17	85	5	90
38	38	38	190	10	200
38	38	38	190	5	195
43	43	43	215	14	229
52	52	52	260	4	264
19	19	19	95	15	110
61	61	61	305	22	327
83	83	83	415	26	441
14	14	14	70	..	70
1	1	1	5	..	5
15	15	15	75	..	75
4	4	4	20	..	20

	1	2	3	4	5
Post Diploma					
Production		30	32	16	16
Power plant		20	5	3	3
T.V.		20	18	10	10
Tele Communi- cation		20	..	..	10
Instrumenta- tion Control		30	20	23	23
Management		25	28	11	11
A.C. & Refgr.		20	44	19	19
Automobile & Engineering		10	..	..	3
Construction Engineering		10	..	..	7
Bio-Medical Instrument action		10	6	7	7
Diploma					
Civil		1819	1799	1156	1156
Machanical		1302	1393	1079	1079
Electrical		930	931	534	534

6	7	8	9	10	11
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16	16	16	80	..	80
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3	3	3	15	..	15
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10	10	10	50	..	50
----	----	----	----	----	----

10	10	10	50	..	50
----	----	----	----	----	----

23	23	23	115	..	115
----	----	----	-----	----	-----

11	11	11	55	..	55
----	----	----	----	----	----

19	19	19	95	3	98
----	----	----	----	---	----

3	3	3	32	..	12
---	---	---	----	----	----

7	7	7	28	..	28
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7	7	7	35	..	35
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1156	1156	1156	5780	1844	7624
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1079	1079	1079	5395	1279	6674
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534	534	534	2670	819	3489
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1	2	3	4	5
Chemical	100	108	73	73
Textile technology	15	24	28	28
Textile chemistry	70	97	125	125
Electronics/ sound Eng.	10	11	6	6
Automobile Engineering	90	81	52	52
Printing Technology	30	..	24	24
Textile Manufacturing	75	86	66	66
Technology of Metallurgy	30	30	18	18
Architectural Assistantship	60	67	34	40
Ceremic Technology	15	17	9	9
Plastic Engineering	30	38	14	14
Man-made fibers Fabrics	55	61	18	18
Man-made fibres Wet. processing	55	60	26	26

6 7 8 9 10 11

73 73 73 365 12 377

28 28 28 140 7 147

125 125 125 625 37 662

6 6 6 30 21 51

52 52 52 260 168 428

24 25 26 113 40 153

66 66 66 330 29 359

18 18 18 90 1 91

40 40 40 194 57 251

9 9 9 45 4 49

14 14 14 70 4 74

18 18 18 90 20 110

26 26 26 130 .. 130

	1	2	3'	4	5
Commercial Art.		30	33	41	41
Commercial Practice		205	194	147	147
Industrial electronics.		15	..	20	20
Production Engineer--		15	..	..	..
Electronics and Radio Engineering.		110	110	77	77
Costume Design of Dress making		60	83	27	27
Home science		30	33	12	12
Exament making		13	13
Agricultural Course					
MSc. (Agril.)	@		123	100	100
M.V. Sc.	@		14	8	8
M.Sc. (Dairy)	@		4	43	3
B.Sc. (Agril.)		350	366	350	350
B.V. Sc.		80	125	80	80

6	7	8	9	10	11
41	41	41	205	..	205
147	147	147	735	..	735
20	20	20	100	..	100
..	..	..	25	8	33
77	77	77	385	70	455
27	27	27	135	..	135
12	12	12	60	..	60
13	13	13	65	..	65
100	100	100	500	13	513
8	8	8	40	..	40
3	3	3	15	..	15
350	350	350	2150	536	2686
80	160	160	560	..	560

	1	2	3	4	5
B.Sc. (Dairy)		40	58	40	40
Diploma Agriculture		390	494	400	400
Live stock Inspector's Course		40	50	50	50
Pharmacy Courses					
M. Pharm		20	24	18	18
B. Pharm		165	140	129	129
Diploma in Pharm		330	327	214	214
B.S.A.M.		272	272	240	240
B.Pharm (Agri)		25	25	18	13
Teacher's Courses					
B.ED.		N.A.	N.A.	4243	4243
P. T. C.		4040	6976	8219	8210
Medical and post medical course.					
Post Graduate Courses					
M. D.		N.A.	290	290	290
M. S.		N.A.	290	290	290

6	7	8	9	10	11
40	40	40	200	2	202
400	400	400	2000	767	2767
50	50	50	240	..	240
18	18	15	90	..	90
129	129	129	645	65	710
214	214	214	1070	308	1378
240	240	240	1200	552	1752
15	6	10	62	21	83
4243	4243	4243	21215	5496	26713
8210	8210	8210	41050	7919	48969
290	290	290	1450	3	1453
290	290	290	1450	3	1453

	1	2	3	4	5
M.D.S.		N.A.	N.A.	25	25
Graduate Course					
M. B. B. S.		675	675	750	750
B. D. S.		50	50	50	50
B.Sc.(Nursing)		30	30	20	20
Para Medical Courses.)					
General Nur- sing (Diploma)		750	304	225	225
Diploma in Homeopathy		250	250	175	175
Sanitary Inspector's Course.		200	203	200	200
Health Visitor		45	23	10	10
Auxiliary Nur- se Midwifery		N.A.	N.A.	300	300
I.T.I. Certificate Courses.					
Wiremen		736	860	399	399
Fitter		1104	1295	563	563
Turner		720	794	336	336

6	7	8	9	10	11
25	25	25	125	..	125
750	750	750	3750	60	3810
50	50	50	250	3	253
20	20	20	100	..	100
225	225	225	125	20	145
175	175	175	875	2	877
200	200	200	1000	143	1143
10	10	10	50	5	55
300	300	300	1500	56	1556
399	399	399	1995	2057	4052
563	563	563	2815	1296	6926
336	336	336	1680	786	2465

	1	2	3	4	5
Mechanist		420	471	174	174
Mechenic Grinder		72	86	51	51
Building Construction		80	80	10	10
Watch Clock Repairer		48	40	4	4
Electrician		704	805	375	375
Instrument Mechanic		384	419	159	159
Refrigerator Mechanic		240	253	53	53
Mechanical Draughtsmen		416	436	143	143
Civil Draught- men.		624	726	174	174
Surveyor		304	356	172	172
Radio T. V. Mechanic		256	198	76	76
Pattern Maker		2	2
General Mechanic		176	217	60	60

6	7	8	9	10	11
174	174	174	870	377	1274
51	51	51	255	..	255
10	10	10	50	..	50
4	4	4	20	4	24
375	375	375	1875	866	2741
159	159	159	795	180	975
53	53	53	265	151	416
143	143	143	715	746	1461
174	174	174	870	1009	1879
172	172	172	860	412	1272
76	76	76	380	150	530
2	2	2	10	6	16
60	60	60	360	51	351

	1	2	3	4	5
Engineering cum-Electric Mechanic.	64	67	..	..	..
Rural work-shop Mechanic	32	40	..	..	..
Maintenance Meehanic	..	..	..	..	..
Electro Plastr	16	18	7	7	7
Motor Mechanic	576	675	185	185	185
Tool Dye Maker	16	21	3	3	3
Welder	852	920	640	640	640
Sheet Metal Worker	16	21	41	41	41
Painter	64	62	47	47	47
Electronics	112	104	15	15	15
Moulder	96	86	53	53	53
Carpantary	64	44	35	35	35
Mechanic (Tractor)	288	296	175	175	175
Mechanic (Diesal)	640	739	604	604	604
Plumber	128	120	93	93	93

6	7	8	9	10	11
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...
7	7	7	35	9	44
185	185	185	925	456	1381
3	3	3	15	8	23
640	640	640	3200	570	3770
41	41	41	205	22	227
47	47	47	235	1	236
15	15	15	75	..	76
53	53	53	265	32	297
35	35	35	175	47	222
175	175	175	875	55	930
604	604	604	3020	504	3524
93	93	93	465	22	487

	1	2	3	4	5
Hand Compo- sitor		112	81	56	56
Stenography (English)		240	242	85	85
Stenography (Gujarati)		336	370	35	35
Footwear		16	9	7	7
Book Binder		80	33	19	19
Central Press Mechanic		96	126	..	..
Handicrafts		32	32	..	..
Armature winding		48	36	..	..
Suit-cases Manufacture		16	..	..	..
Hand Made Paper and printing.		16	..	..	..

@ Seats are adjusted according to facilities.

N. A.: Not Available.

6	7	8	9	10	11
46	56	56	280	25	305
85	85	85	425	9	434
35	35	35	175	..	175
7	7	7	35	..	35
19	19	19	95	..	95
..
..
..
..	..	..	..	10	10
..

“Our greatest wealth is our people. We must enable individuals and families to realise their potential to the full. For this we shall stress programmes of family planning, nutrition, welfare of women and children, control of disease, elementary and adult education, sports and better communications”.

—RAJIV GANDHI

[Extract from the broadcast to the Nation by Prime Minister Shri Rajiv Gandhi—12th November, 1984.]

H—814—A—2

PART-II
SECTORAL PROFILE

“I reaffirm our adherence to Socialism and Planning. Without Planning we could not have reached where we are. Our aim is continuous modernisation, higher productivity and rapid advance of social justice”

--RAJIV GANDHI

[Extract from the broadcast to the Nation by Prime Minister Shri Rajiv Gandhi-
12th Nov. 1984.]

1. AGRICULTURE AND ALLIED PROGRAMMES

1. The Agriculture Sector continues to be a significant contributor to the State income with a share of about 35 to 40 per cent of the State income. More than 60 per cent of the working population depend on agriculture and allied pursuits for their livelihood. Agriculture and allied programmes play a vital role in rural development. Agriculture, besides being a productive sector, possesses considerable capacity for absorbing the surplus labour.

2. Stress has, therefore, been laid on the programmes for rural development, to increase the share of more vulnerable sections in agricultural production. Intensive programmes for scheduled castes and scheduled tribes as well as small and marginal farmers have been launched with the objectives of improving their productivity by supplying inputs at subsidised rate and to provide them better extension facilities. A dual scheme for better utilisation of water by the rotation system of irrigation in irrigated areas and special dry farming programmes in watershed areas is also being implemented. Efforts are also made to raise output levels and employment intensity not only in crop production but also in animal husbandry, dairying, forestry and fisheries.

3. Poverty and unemployment are the main problems of the rural areas. A variety of programmes have been designed to ameliorate the conditions of rural poor. The approach of a frontal attack on poverty by designing specific programmes for creation of employment and transfer of assets have become well delineated. Efforts in this direction have been centred on the following :—

- Resources and income development of rural poor through Integrated Rural Development Programme and a project for small and marginal farmers.
- Works programmes for creating supplementary employment opportunities through National Rural Employment Programme and Rural Landless Employment Guarantee Programme.
- Special Area Development Programmes through Drought Prone Area Programme and Desert Development Programme.

4. Six areas have been identified to help the farmer in increasing his income and production. They are :

(1) To ensure remunerative price for each crop to the farmer so that they have adequate incentives to produce more and improve productivity keeping in view the overall need of the economy and interest of consumers.

(2) To ensure that appropriate technology is transferred to a large number of farmers within the shortest time.

(3) To arrange availability of all inputs including water, recommended seeds, fertilizers, pesticides, improved implements, etc. in time at reasonable prices and of genuine quality.

(4) To see that adequate credit is available and timely credit repayment is ensured.

(5) To take up and implement speedily the programmes of water and land development in dry areas, command areas and saline areas.

(6) To restructure and rationalise the organisation for agricultural development including the administrative and technical machinery, input supplies, credit and marketing organisations ; the corporations concerning the farmers and agriculture and the Agricultural University.

The programmes for the Seventh Plan have been proposed keeping in view these objectives and strategies.

5. An outlay of Rs. 510.70 crores is provided for the Agriculture and Allied Programmes including Rural Development and Co-operation. The sector/sub-sectoral breakup is as under :

(Re. in lakhs)

Sub-sector of Development	Outlay for Seventh Plan 1985-90
Agriculture and Allied Programmes	
Research and Education	3033
Crop Husbandry	7720
Soil and Water Conservation	5763
Animal Husbandry	1820
Dairy Development	182
Fisheries	2426
Forests	12964
Investments in Agricultural Financial Institutions ..	971
Marketing, Storage and Warehousing	121
Total :—Agriculture and Allied Programmes ..	35000
Rural Development	
(a) Integrated Rural Development Programme	5284
(b) National Rural Employment Programme	3700
(c) Drought Prone Area Programme	1575
(d) Desert Development Programme	256
(e) Project Linkage	35
(f) Development of women and Children in Rural Areas ..	40
(g) Regional Rural Bank	11

(h) Strengthening and Supporting Special Programmes Organisation	80
(i) Strengthening Training Facilities for Rural Development ..	10
(j) Integrated Village Environmental Improvement Programme	44
(k) Community Development and Panchayats	485
(l) Land Reforms	910
Total-Rural Development	12430
Total—Agriculture and Rural Development	47430
Co-operation	3640

The Programmes for each of the above sector/sub-sector are outlined in the subsequent pages.

1.1. RESEARCH AND EDUCATION

1.1.1. Introduction

1.1.1.1. The Gujarat Agricultural University is entrusted with the triple functions of Agricultural Education, Research and Extension Education. Prior to the establishment of the Gujarat Agricultural University in 1972, all the agricultural education and research activities in the State were carried out under the aegis of the State Government and the autonomous Institute of Agriculture at Anand.

1.1.1.2. Initially, the Gujarat Agricultural University had three Agricultural Colleges at Anand, Junagadh and Navsari, the College of Veterinary Science and Animal Husbandry at Anand and one College of Dairy Science at Anand. All these Colleges offered under-graduate and post-graduate programmes.

1.1.1.3. Gujarat Agricultural University is a multi-campus University with four campuses viz. at Anand, Junagadh, Navsari and Sardar Krishinagar. The primary campus of the University is at Sardar Krishinagar in Dantiwada.

1.1.2. Review of Progress

1.1.2.1. During 1972-74 the emphasis was mainly on evaluating the infrastructural and other needs of the University so as to plan its development on systematic lines.

1.1.2.2. The Fifth Plan (1974-78) was devoted to strengthening the basic facilities at the newly created Sardar Krishinagar Campus in terms of residential and non-residential facilities and development of farm land so as to ensure its proper functioning as the head-quarters of the University.

1.1.2.3. Requisite changes in the educational system keeping in view the recommendations of the Randhava Committee were brought about and new facilities in different disciplines were established.

1.1.2.4. In the field of Agricultural Research, efforts were made to improve the research facilities at the 55 Research Stations located in different agro-climatic zones of the State. The University also participated in the National Agricultural Research Project financed by the ICAR with financial assistance from the I. B. R. D. The primary objective of the project was to strengthen the research capabilities of the Agricultural University to conduct zonal research.

1.1.2.5. In the programmes under Extension Education and Training, the emphasis has been on the transfer of improved farm technology to the farmers. The extension education channel is also responsible for the regular feed-back on the production constraints experienced by the growers in the field. This is important as it helps in the planning of research programmes. As part of this programme, Sardar Smruti Kendras were established at Anand, Junagadh and Navsari Campus, Krishi Vigyan Kendra at Deesa and tribal research-cum-training centre was started at Devgadbaria. The University initially had 10 Agricultural Schools for the training of VLWS besides numerous other activities. Efforts were made to up-grade these activities in terms of training standards and other facilities.

1.1.2.6. In the field of animal science research results have helped to formulate appropriate mix of cattle feed and its large scale manufacture. Research in reproductive biology was also initiated during the Fifth Plan period.

1.1.2.7. During the Sixth Plan three new colleges viz. College of Agriculture, the ASPEE College of Home Science, Nutrition and Food Technology and the College of Veterinary and Animal Science were established at Sardar Krishinagar. The College of Agricultural Engineering and Technology also started functioning from June 1984 at Junagadh.

1.1.2.8. Research facilities at Arnej, Targhadia, Sardar Krishinagar, Vijapur, Bhachau, Junagadh, Jamnagar, Dhari, Anand, Godhra, Derol, Navsari, Surat and Bharuch were strengthened with assistance received from the ICAR under the National Agricultural Research Project. The emphasis was on organising research on the agro-climatic basis.

1.1.3. Approach and Strategy for the Seventh Plan (1985-90)

1.1.3.1. The basic features underlining the various developmental activities envisaged during the Seventh Plan in the GAU is to strengthen the capabilities of the different sub-sectors namely; Agricultural Education, Research and Extension Education so as to enable them to perform the functions entrusted to them effectively.

1.1.3.2. The development programmes are divided into three sub-sectors; (1) Agricultural Education, inclusive of Veterinary Science, Animal Husbandry Dairy Technology and Agricultural Engineering; (2) Agricultural Research including research in Veterinary Science and Animal Husbandry; and (3) Extension Education inclusive of Extension Education in Veterinary Science and Animal Husbandry.

1.1.4. Programmes for the Seventh Plan,—1985-90 :

1.1.4.1. An outlay of Rs. 3033 lakhs is provided for the Seventh Five Year Plan under education, research and extension education; the details of which are given below :

(Rs. in lakhs)

Programme	Outlay for Seventh Plan 1985—90
(A) Education	881.96
(B) Research	1769.91
(C) Extension Education	381.13
Total	3033.00

Anticipated assistance from ICAR

1.1.4.2. An assistance of Rs. 1318.75 lakhs is anticipated during the Seventh Plan from ICAR under the Education, Research and Extension Education programmes details of which are given below :—

Programme	Likely assistance
1. All India Co-ordinated Research Projects	
(i) Agricultural Research	455.25
(ii) Veterinary Research	83.10
2. Assistance for the production of Breeder Seed and Foundation Seeds	40.00
3. I. C. A. R. Dev. Grant	500.00
4. National Agriculture, Research Project	190.40
5. Assistance for Extn. Edn. Programme	50.00
Total	1318.75

Agricultural Education

1.1.4.3. The basic objective of the Seventh Plan in respect of Agricultural Education is to turn out adequate number of graduates and post-graduates in the field of agriculture, veterinary science, dairy technology, home science, nutrition, food technology and agricultural engineering.

1.1.4.4. The College of Agriculture and College of Veterinary and Animal Science was started at Sardar Krishinagar in 1982. College of Home Science, Nutrition and Food Technology was established in 1981 at Sardar Krishinagar and College of Agricultural Engineering started functioning at Junagadh in June, 1984. These colleges will need additional infrastructural facilities in the form of buildings, equipments and teaching personnel. Necessary provision has been made for this purpose.

1.1.4.5. The students amenities in the form of hostels, recreation, sports and gymnasium facilities at different Campuses need to be augmented. Necessary provision for this purpose has been made.

1.1.4.6. Necessary provision has also been made for land development at different campuses and upgrading the communication facilities at main campuses of the GAU as well as for improving the standards of administration and accounts. It has also been decided to instal computer facilities for accounting and compilation of personnel data of the Staff.

1.1.4.7. In the veterinary science and Animal Husbandry education provision for raising the intake capacity of the Veterinary college at Sardar Krishinagar from the present level of 40 to the level of 60 has been made. Necessary infrastructural facilities for this purpose will be created.

1.1.4.8. In dairy technology it is proposed to bring about a qualitative improvement in the teaching of this faculty by introducing courses in Dairy Plant maintenance, instrumentation and quality control. Provision is also made to modernise the dairy equipment in the college.

Agricultural Research

1.1.4.9. The basic objective of the Seventh Plan in Agricultural Research is to evolve new technology for improving the productivity of crops as well as cattle in the State. This will be achieved through multi-disciplinary location specific research.

1.1.4.10. It is decided to augment the research facilities in different crops namely millet, sorghum, cotton, pulses, oil-seeds, spices etc. and in the disciplines of Water Management, Dry-farming, Soil Salinity etc. to take up new avenues of research as well as improving research quality. Requisite infrastructural facilities in terms of scientific manpower, laboratory space, and equipments are proposed to be created. Emphasis has been laid on improving the research base for improving the productivity of oilseeds and pulses since the productivity of these crops has not gone up to an appreciable extent in the State during the last few years. Intensive research is also considered necessary in water management, in view of the possibilities of availability of Narmada Waters during the next 10-13 years. Soil Salinity is another area in the State which needs intensive attention since 10% of the cultivated area in the State is saline. This branch has not received due attention so far. Dry-farming will continue to need attention since more than 80% of the total cropped area in the State is covered by rainfed farming.

1.1.4.11. It has been decided to set-up a centre of excellence in research in cotton at Surat. This is necessary as Gujarat has long been a pioneer in cotton research in the country and has to maintain the tradition and to meet the challenges faced by the crop. A centre for fibres other than cotton is also proposed to be organised.

1.1.4.12. Horticultural crops have so far not received due attention in the State in spite of the fact that large areas are at present covered by these crops. It is proposed to strengthen the relevant disciplines.

1.1.4.13. Animal Science research in the University needs greater impetus in view of the large cattle population and organised dairy industry in the State. This field of science has remained relatively less developed so far due to paucity of funds. It is therefore proposed to set up facilities for research in Kankrej Cows and Jafrabadi and Mehsani buffaloes in the University during the Seventh Plan. It is also envisaged to impart Holstein Friesian cows for organising cross breeding programme.

1.1.4.14. Present research facilities in animal science at Anand, Junagadh, Navsari and Sardar Kishinagar are proposed to be up-graded so as to enable them to tackle the problems of the cattle owners in the areas of their jurisdiction. Research on poultry is also proposed to be strengthened.

Agricultural Extension Education.

1.1.4.15. The primary objective of the development programmes envisaged under Extension Education during the Seventh Plan is to facilitate effective transfer of technology. This programme is sought to be achieved through up-grading the existing training facilities for the various categories of persons engaged in agriculture viz. diploma courses in agriculture, training in Bakery, Seed Technology, Home Science etc. Existing 14 Agricultural Schools located in different parts of the

State will be provided with additional facilities so as to up-grade the quality of training. The candidates with diploma in agriculture are in considerable demand for manning the State Extension Service. In view of this, it is necessary to improve the qualitative aspect of the training.

1.1.4.16. The farm Advisory Services are also important for the proper transfer of technology. It is proposed to start the Farm Advisory Centres one each at Surat, Jamnagar, Jagudan and Vadodara during the Seventh Plan. The training in seed technology to seed producers, seedmen is of considerable importance in view of the rapid development of the seed industry in the State. It is proposed to take-up this programme during the Seventh Plan.

1.1.4.17. The Extension Education in Veterinary Science and Animal Husbandry has remained undeveloped in the University due to lack of requisite facilities. Since the requirement of Veterinary Science and Animal Husbandry discipline in respect of extension education is at a variance with the agricultural crops, it is proposed to reorganise a separate extension education programme for veterinary science and animal husbandry in the University during the Seventh Plan period.

STATEMENT

Schemewise Outlays for the Seventh Five Year Plan-1985-90

(Rs. in lakhs)

Sr. No. 1	No. and Name of the schemes 2	Outlay 3
EDUCATION, EXTENSION AND RESEARCH		
(A) Education		
1.	AER-1 Post-graduate degree training in India and abroad	15.00
2.	AER-2 Strengthening of College Education in Agril. Faculty	395.96
3.	AER-3 Expansion of College Education in Vety. Science and Animal Husbandry	224.00
4.	AER-4 Expansion of College Education in Faculty of Dairy Science	100.00
5.	AER-5 Students welfare scheme	38.00
6.	AER-6 Expansion of Faculty of Home Science ..	33.00
7.	AER-7 Strengthening of College of Agril. Engg. at Junagadh	76.00
Total—(A) Education		881.96
(B) Extension Education		
8.	AER-8 Extension Education in Agri.	344.74
9.	AER-9 Extension Education in Vety. Science and A.H.	36.39
Total—(B) Extension Education		381.13
(C) Research		
10.	AER-10 Strengthening of Agril. Research Programme ..	1029.11
11.	AER-11 Strengthening of Research in Vety. Science and A. H.	428.00
12.	AER-12 State share for ICAR and NARP Agricultural Research Scheme	286.00
13.	AER-13 State share for All India Co-ordinated Res. Project on Ani. & Vety. Science. ..	26.80
Total—(C) Research		1769.91
GRAND TOTAL (A+B+C)		3033.00

1.2 CROP HUSBANDRY

1.2.1 Introduction

1.2.1.1. The total geographical area of the State is 1,95,984 sq. kms., which accounts for about 6 percent of the total geographical area of the Country. More than half of the geographical area of the State is under agriculture. The agricultural land scape in Gujarat is characterised by natural disparities such as--(i) drought prone areas with uncertainty and lowest annual rainfall amounting to only about 400 m.m. in the North-West end of the State, and assured and highest annual rainfall amounting to about 2500 m. m. in the South-East end of the State, (ii) well drained deep fertile soils of Central Gujarat and shallow soils with undulating configuration and poor fertility in hilly and rocky areas of peninsular Gujarat and eastern strip bordering Rajasthan, Madhya Pradesh and Maharashtra. (iii) moisture starved denuded areas of upland and low lying water logged and saline areas, (iv) 41 talukas in 10 districts are prone to frequent scarcity and some areas are prone to either cyclone of floods or locusts.

1.2.1.2. Among natural resources, land and water are the basic resources used in agricultural production. The cultivated land in the State is 101.60 lakh hectares of which an area of 22.20 lakh hectares is irrigated and a vast area of 79.40 lakh hectares is rainfed. There is very little scope for bringing new land under cultivation. But there is a vast scope for improving productivity of cultivated land by development in scientific way. Irrigated land is being developed under command area development programme on outlet basis. The rainfed area of land is being developed under soil and water conservation programme on watershed basis. The characteristics of soil such as the structure, texture, depth, moisture holding capacity, drainage, nutrient status, salinity, PH, etc., vary from region to region. The rainfall is confined to 3 to 4 months only starting from June to September with practically no precipitation during winter and summer months. The amount of rain and its distribution during the monsoon season also varies to a large extent from year to year at all places. Co-efficient of variation of rainfall observed in Surat district situated in the so called assured rainfall zone is 34.22 per cent whereas in Dwarka taluka situated in Jamnagar district it is as high as 88.38 percent. Underground water resources are comparatively good along the North-South central alluvial strip of mainland Gujarat which is generally tapped through deep tube wells. Such water is scanty and concealed under hard rocks in hilly and rocky areas of peninsular Gujarat (Saurashtra) and eastern strip of mainland Gujarat. Underground water along the coastline (about 1600 kms.--about one third of the entire coastline of the Country), and the Bhal area of Bhavnagar, Ahmedabad, Kheda, Surendranagar, Mahesana, Banaskantha and Kachchh districts tends to be saline which is a bane to agriculture of that area.

1.2.1.3. These characteristics of soil, rain and surface or underground irrigation water together determine the productivity of land at a particular place and during particular season.

1.2.1.4. The land utilization statistics (1980-81) show that in Gujarat 53.75 percent of the reported area is put under cultivated crops. (Net sown area and current fallow). The State accounts for 18.0 per cent of the total cotton area and 28.1 per cent of the total groundnut area in the Country (1983-84).

1.2.1.5. According to 1981 agricultural census, 29.9 percent of the holdings were irrigated either partly or wholly. Wholly irrigated holdings were only 10.4 percent, covering 35.1 percent of total irrigated area; 19.5 percent of the holdings were partly irrigated which accounts for 64.9 percent of the total irrigated area.

Out of the total (net) irrigated area as much as 66.7 percent is irrigated by surface wells, 18.3 percent by canals, 12.6 percent by tubewells, 2.1 percent by tanks and 0.3 percent by other sources (SCR).

1.2.1.6. The principal food crops of the State are pearl millet, sorghum, paddy, maize and wheat, cotton, groundnut, tobacco and sugarcane are the main commercial crops. Moisture retentive deep and clay soils with assured rainfall in south Gujarat are congenial for paddy crop. Sorghum and maize have comparative advantage in undulating shallow soils with less rainfall in eastern region. Cotton thrives better in plains with deep alluvial soils with moderate rainfall. Pearl millet, sorghum, castor and other oilseeds are the main crops in central and northern parts with less moisture retentive soils and moderate rainfall.

1.2.1.7 The soils and rainfall being generally poor in peninsular part of the State (Saurashtra), natural tendency is to grow crops like groundnut, pearl millet and sesamum which mature with available moisture from the rainfall during the short span of monsoon. Cotton, groundnut and sugarcane are the cash crops which are grown throughout the State in varying intensity. There has been an expansion in the cultivation of spices like cumin and mustard in North and peninsular Gujarat. Over the years there has also been a general shift towards cultivation of commercial crops like groundnut and sugarcane.

1.2.2 Review of Progress

1.2.2.1 The production of food grains and commercial crops have increased rapidly over Plan periods as shown in the following table.

Average, area, production and yield per hectare of important crops during different Plan periods-Gujarat:-

Area in lakh hectares.
Production in lakh tonnes/Yield in kgs/hect.

Sr. No.	Plan period	Unit	Food grains	Oil seeds	Cotton	Tobacco	Sugar-cane
1	2	3	4	5	6	7	8
1.	First Plan. 1951-52 to 1955-56	Area.	55.86	11.93	13.72	0.60	0.10
		Prod.	18.75	4.40	8.83	0.41	0.57
		Y/H.	336	362	109	683	5182
2.	Second Plan. 1956-57 to 1960-61.	Area	49.80	18.99	17.50	0.81	0.18
		Prod.	20.28	11.07	11.17	0.56	0.94
		Y/H.	407	586	108	691	5222
3.	Third Plan. 1961-62 to 1965-66	Area	47.96	23.44	17.57	0.86	0.29
		Prod.	25.79	13.58	15.23	0.83	1.65
		Y/H.	538	581	147	965	55.94
4.	Average of three Annual Plans-1966-67 to 1968-69.	Area	51.90	21.57	16.89	0.91	0.33
		Prod.	28.11	11.31	15.48	0.93	1.81
		Y/H.	542	524	156	1026	5476
5.	Fourth Plan. 1969-70 to 1973-74.	Area.	51.82	20.56	19.65	0.88	0.46
		Prod.	37.19	13.87	20.18	1.13	2.53
		Y/H.	714	675	174	1284	5500

1	2	3	4	5	6	7	8
6.	Fifth Plan. 1974-75 to 1977-78.	Area Prod. Y/H.	47.44 35.72 753	22.07 18.64 844	18.58 17.93 164	1.00 1.57 1574	0.62 4.22 6806
7.	Average of two Annual Plans. 1978-79 and 1979-80	Area. Prod. Y/H.	49.05 44.45 906	24.96 21.04 842	17.69 19.70 189	1.24 2.11 1702	0.82 6.86 8366
8.	Sixth Plan. 1980-81 to 1983-84(4 years)	Area. Prod. Y/H.	48.83 50.46 1033	26.28 22.27 847	14.98 17.06 194	1.16 1.96 1690	0.95 6.84 7193

Note—1. Production of sugarcane is in terms of Gul.

2. Production of cotton is in lakh bales each of 170 kgs. lint.

3. Total oilseeds include groundnut, sesamum, castor, rape and mustard.

1.2.2.2. Average annual gross cropped area has increased from 100.62 lakh hectares per annum during the Third Plan to 105.32 lakh hectares during annual plan 1978-80. Area under non-food crops has expanded considerably partly by taking away the additional gross cropped area and partly by replacing the foodgrain crops. This shift in area in favour of non-food crops has helped in increasing the total value of agricultural product component of the State Domestic Product.

1.2.2.3. During the 33 years of planned development, food grain production has increased by 181 percent over the base level of 17.93 lakh tonnes during 1949-51. Similarly, the production of cotton, tobacco, oilseeds and sugarcane have increased by 144,367, 483 and 1167 percent respectively. Increase in production of food grains has been due to increase in productivity only and that of sugarcane has been mainly due to increase in area under the crop. Increase in production of oilseeds, cotton and tobacco has been as a result of both the increase in productivity and the expansion of area under the crop. There being limited scope for bringing new land under cultivation, main source of increased cropped area has been the extension of irrigation during winter and summer seasons. The increase in productivity can be attributed to the use of improved technology.

1.2.2.4. Programmes of subsidy have helped the weaker sections of farming community to improve their living standard. The innovative programmes and agricultural extension services have helped to initiate and spread the use of modern technology on individual farm holdings, whereas the programmes of strengthening input supply organisations and agricultural marketing have provided a thrust for expanding agricultural output by the adventurous farmers operating their farm holdings above subsistence level. Hence, the programmes designed to facilitate better marketing and input supply simultaneously with the programmes of transfer of technology hold good prospects for rapid increase in agricultural production.

1.2.2.5. Production of food-grains achieved by the fourth year of the Sixth Plan indicates that it will exceed the targetted production during the Plan.

1.2.2.6. The Sixth Plan target of food-grain production is 53.50 lakh tonnes against which 51.00 lakh tonnes likely to be achieved. But the higher target of 54.45 lakh tonnes fixed for the Annual Plan 1984-85 is not likely to be achieved. Because of the unfavourable monsoon, sowing of the crops was effected. It had

also an adverse effect on productivity of Kharif Bajri and Maize crops. Because of insufficient recharging of ground water area under irrigated wheat production has decreased. In case of Oilseeds, Sixth Plan target of 26.00 lakh tonnes has been exceeded during 1980-81 and 1981-82 but there has been set back in subsequent period due to adverse weather in groundnut growing area. The target of 32.60 lakh tonnes of oilseeds, for the year 1984-85, as revised in view of the National Oilseeds Development Project, is far above the achievement made so far and is not likely to be reached. The main reason being that the high expectations were largely based on summer groundnut programme besides the improved practices such as use of improved seed, premonsoon sowing, supplementary irrigation, closer spacing etc., to be adopted in Kharif groundnut. The ambitious programmes of summer groundnut unfortunately got a set back due to limitation of irrigation facility. The available irrigation facility during summer could not expand to a large extent. On the contrary it faced the shortage of power and the available irrigation facility has been shared by other crops also viz. Summer Bajri, vegetables, fruits, sugarcane etc.,. The staggered setting of monsoon in groundnut growing areas caused deviation in the date of sowing from its optimum point which had adverse effect on its productivity. Besides, the inadequacy of rain during sowing period in some of the areas, resulted in contraction in areas under the groundnut crop. Inadequacy of water has also reduced considerably the area under summer groundnut 1985 and hence it will result in reduction of production substantially. For Cotton crop, the Sixth Plan target was for 24.30 lakh bales. For the Annual Plan 1984-85 it has been revised to 19.00 lakh bales considering its prospects and feasibility, which is expected to be achieved. Large proportion of the crop being grown under rain-fed condition is affected by irregularity of rains. Besides, it is very susceptible to pests and diseases. The area under this crop is slowly contracting. During 1972-73 the crops was grown in 21.48 lakh hectares which has contracted year after year and has reached the level of 13.99 lakh hectares during 1983-84. The crop is losing ground in competition with other crops mainly because of unfavourable terms of trade prevailing in the market. Production of sugarcane has far exceeded the Sixth Plan terminal year target of 4.50 lakh tonnes of Gul right from the second year of the plan and it has reached the level of 7.75 lakh tonnes by the end of 1983-84. There seems to be bright prospects for this crop under canal irrigation coupled with cane processing facility and favourable terms of trade. Area under this crop is expanding continuously.

Input Supply

1.2.2.7. Use of modern inputs plays crucial role in agricultural production. Programmes pertaining to the modern inputs have been implemented enthusiastically during the Sixth Plan period. Cropwise progress under HYV programme made during the Sixth Plan is given below :

(Coverage under HYV Programme in lakh hect.)

Crop	Terminal Year Target	Achievement				Antici- pated Achieve- ment 1984-85
		1980-81	1981-82	1982-83	1983-84	
1	2	3	4	5	6	7
Pearl Millet	13.00	11.96	11.82	11.85	12.78	11.75
Wheat	5.60	4.75	4.68	4.54	5.46	3.95
Paddy	3.80	3.05	3.29	3.18	3.76	4.06

1	2	3	4	5	6	7
Sorgum	1.25	0.84	0.73	1.22	1.00	0.67
Maize	1.15	0.91	0.98	1.15	1.10	1.05
Total-food grains	24.80	21.51	21.50	21.94	24.10	21.48
Cotton	3.50	3.00	3.00	3.00	2.78	3.84
Castor	1.10	0.93	1.00	0.70	1.00	1.21
Total-Commercial crops.	4.60	3.93	4.00	3.70	4.25	5.05

1.2.2.8. Except the cotton crop whose total area has decreased from 17.69 lakh hectares during Annual Plans 1978-80 to 13.99 lakh hectares by 1983-84 in the Sixth Plan and HYV programme has stagnated at 3.00 lakh hectares under the effect of general depression in Textile Industry. There has been satisfactory progress under this programme for the rest of the crops. During 1984-85 the progress is satisfactory in case of Crops except coarse grains and wheat.

1.2.2.9. Progress made in the fertilizer use during the Sixth Plan is given below.—

year	Annual consumption in lakh tonnes			
	Nitro- gen	Phos- phorus	Pottash	Total
1980-81	2.04	1.17	0.36	3.57
1981-82	2.45	1.14	0.42	4.01
1982-83	2.34	1.14	0.33	3.81
1983-84	3.17	1.47	0.38	5.02
1984-85 (Provisional)	3.24	1.59	0.37	5.20

1.2.2.10. The annual progress of about 12 percent increase in consumption of fertilizers is likely to be achieved during Sixth Plan period over the average achievement during Annual Plans 1978-80. In absolute terms it comes to about forty thousand tonnes of additional NPK fertilizers utilised per annum.

1.2.2.11. Coverage under plant protection measures is as follows :

Year	Food grain crops (lakh hectares)	Commercial crops (lakh hectares)	Total (lakh hectares)	Plant protection material (Tech. Grade) used. (Thousand tonnes)
1980-81	11.35	54.30	65.65	7.5
1981-82	13.48	59.73	73.21	7.7
1982-83	12.00	48.00	60.00	6.0
1983-84	15.00	57.26	72.26	6.5
1984-85 (Provisional)	19.00	77.00	96.00	4.25

1.2.2.12. Yearwise programmes of plant protection vary according to weather conditions and extent of pest infestation on the crops during each season. However, on the whole, the progress has been achieved as envisaged during the Plan period.

Agricultural Extension and Farmer's Training Programme

1.2.2.13. Agricultural extension programme has been launched with Training and Visit system covering all the districts by 1984-85 and it is to enter in its second phase by the end of Sixth Plan. Farmer's training programme mainly includes need based institutional training for farmers, farm women and youths in modern agricultural techniques and also one-day training camps on cultivators fields *i. e.*, outside the training institutions. At the end of the Sixth Plan, 17 farmer's training centres would have been functioning in the State of which, five would be in tribal area.

Dry Farming

1.2.2.14. Dry farming Programme forms part of training and visit system wherein latest dry farming technology is diffused among cultivators and farmers are guided regarding improved seed, fertilizer use, plant protection measures, improved implements and other practices.

Horticulture Development

1.2.2.15. Under the horticultural programme, development of major crops like Banana, Mango, and Ber is emphasised, beside imparting training and rendering services to farmers and urban people by developing and running fruit graft and Plant nurseries and canning and kitchen gardening centres and certification of grafts. Development of date palm cultivation in arid area of Kachchh and coconut cultivation in the coastal area is being encouraged through raising and supply of planting material to the farmers.

1.2.3 Objectives and Strategy

1.2.3.1. In consonance with the goal of providing increased income and better living to the farmers, the objectives of planned development in agriculture are to

increase productivity and to ensure remunerative prices for the farm produces. Strategies proposed to be adopted for the success of these objectives are :

- To ensure remunerative price for each crop to the farmers, so as to ensure that they have adequate incentives to produce more and improve productivity keeping in view the overall needs of the economy and interest of consumers.
- To ensure that applied technology is transferred to a large number of farmers with the shortest time.
- To arrange availability of all inputs including water, recommended seeds, fertilizers, pesticides, improved implements, etc., in time at reasonable prices and of genuine quality.
- To see that adequate credit availability and timely credit repayment is ensured,
- To take up and implement very speedily the programmes of water and land development in dry areas, command areas and saline areas, and
- To restructure and rationalise the organisation for agricultural development including (a) the administrative and technical machinery of Government (b) input supply, credit and marketing organisations (c) the corporations concerning the farmers and agriculture and (d) the Agricultural University.

1.2.3.2. The programmes to raise the level of production for foodgrains as well as commercial crops including horticultural development will mainly cover :

- to increase the area under hybrid/HYV programme.
- to optimise use and availability of main inputs viz., seeds, fertilizers, insecticides and irrigation largely through the village co-operatives.
- to increase the production of groundnut by using pre-monsoon irrigation for early supplementary irrigation, closer spacing, summer cropping, inter furrow method of saving for moisture conservation and extending the area under oilseeds crops in non-traditional area.
- to increase production of pulse crops by taking them as mixed crops with other crops like castor and cotton, expanding area under short duration, variety of green gram during summer season after harvest of wheat crop,
- training of farmers will be improved through strengthening farmer's training centres and training and visit system in its second phase with higher expertise,
- integrated pest management programmes for cotton, groundnut, pulses and sugarcane will be implemented to protect the crops from pest damages and thereby enhance the production of each crops.

1.2.4. Programmes for the Seventh Five Year Plan-1985-90.

1.2.4.1. An outlay of Rs. 77.20 crores has been provided for the Seventh Plan-1985-90; the broad break-up of which is as under :

Programme	Outlay for Seventh Plan 1985-90
Direction and Administration	24.00
Multiplication and distribution of seeds.	474.61
Manures and fertilizers	127.50
Plant protection	278.00
Commercial crops	259.90
Horticulture	247.75
Extension and farmer's training.	2931.74
Agricultural engineering	337.50
Agricultural economics and statistics	307.00
Day farming	20.00
Other expenditure (Corporation etc.)	86.00
Nucleus Budget for TASP.	40.00
Contingency plan (R. D.'s. Programme)	36.00
Special programme for SF/MF for increasing agricultural production (A & RDD)	2550.00
Total	7720.00

1.2.4.2. Highlights of the programmes proposed during the Seventh Plan are:

- It is proposed to strengthen the implementing department in its administrative, accounts, planning and all technical aspects for different subjects and important crops so as to make it more effective and farmer oriented.
- Existing facility and organisation for quality control of agricultural inputs are proposed to be strengthened.
- It is proposed to create a machinery for collection and compilation of agricultural statistics from village to State level by sample survey and for estimation of production of horticultural crops viz., mango, chikoo and coconut and the scheme for estimation of cost of production is to be expanded to cover more crops.

- Agricultural extension services is proposed to be strengthened in its all facts viz., T & V system, farmer's training centres, crop competitions organising agricultural extension through farmer's day on crop competition plots, soil testing service, adoptive trials on farms and farmers fields, demonstrations and innovative measures regarding new seed, micro-nutrients in intensive agriculture, inputs in dry farming areas, improved implements and equipments and fruit plants.
- New activity for production of hybrid coconut seednuts and seedlings and expanding the activity of fruit nurseries are proposed to be started.
- Besides this, assistance and loan to Gujarat State Seed Corporation, Gujarat Agro-Industries Corporation and Gujarat Tractor Corporation will be continued.
- A new scheme for monitoring the programme of assistance to weaker sections of farming community for bullocks, carts, implements, wells, pumpsets etc. is also proposed.

Production Targets

1.2.4.3. The targets of production for foodgrains and commercial crops for the Seventh Five Year Plan are as under :

Crop	Unit	Base year level Avg. of Triennium ending 1984—85*	Anticipated Achievement at the end of 1984—85	Target for 1989—90
Food grains	Lakh tonnes	50.80	51.00	62.76
Oilseeds	Lakh tonnes	21.23	22.14	28.40
Cotton	Lakh bales (170 kg. each)	16.31	19.00	20.00
Sugarcane (Gul)	Lakh tonnes	7.29	7.43	9.50
Tobacco	lakh tonnes	1.88	1.80	2.62

*Includes the anticipated production of 1984—85

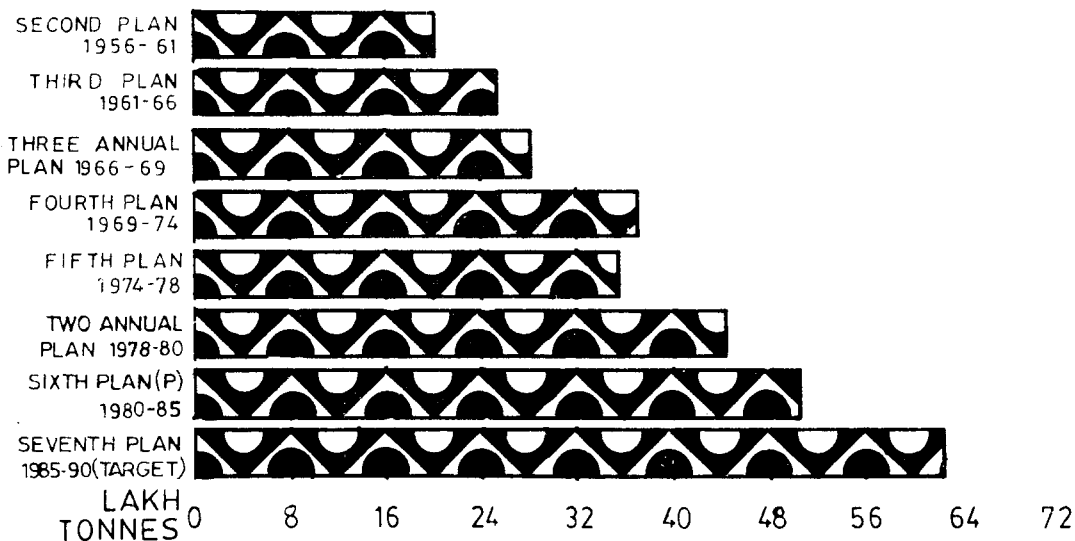
1.2.4.4. While contemplating the production targets for the Seventh Plan the average production achieved during the triennium ending 1984—85 is taken as the base level.

1.2.4.5. Looking to the trends of growth of these crops during tapering period of the last decade, these targets seem to be realistic ambitious. Linear growth rate of production of principal crops grown in Gujarat for the decade 1974—84 are :

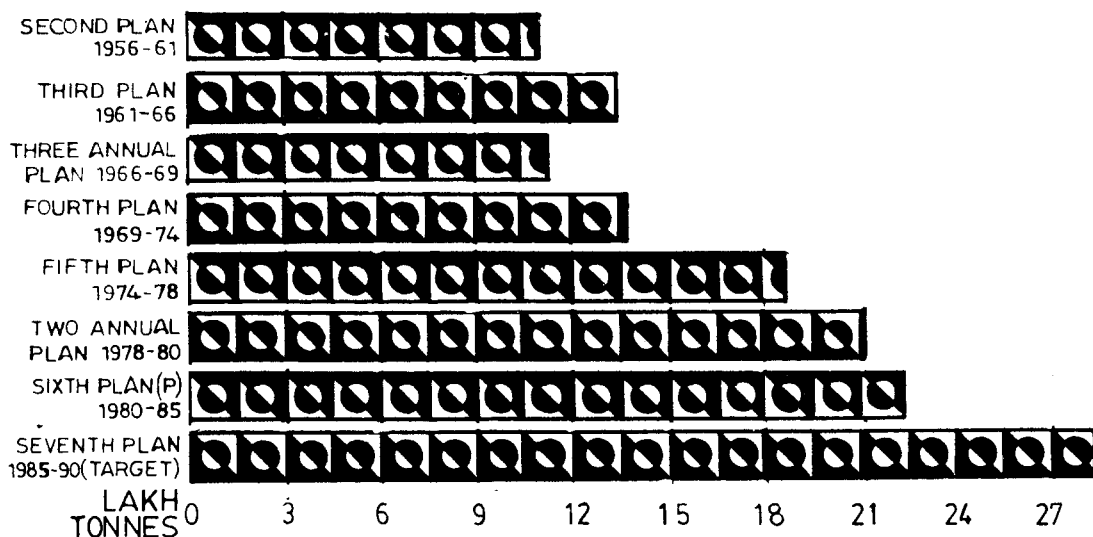
AGRICULTURAL PRODUCTION

ANNUAL AVERAGE

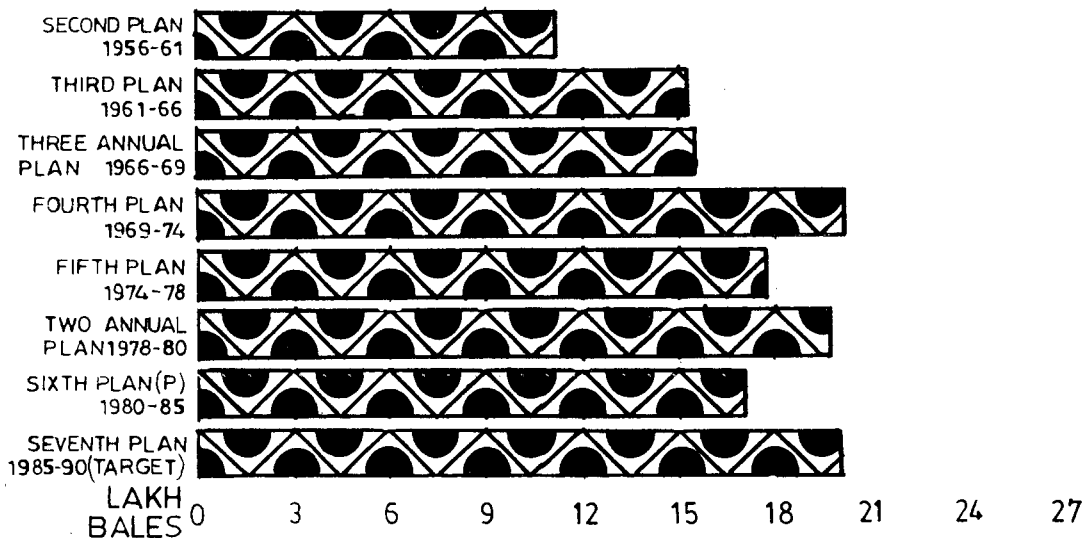
FOODGRAINS



OIL SEEDS



COTTON



Crop	Tapering period		
	1974-75 to 1983-84	1978-79 to 1983-84	1980-81 to 1983-84
Food grains	6.29	4.26	3.46
Oilseeds	3.04	2.51	0.87
Cotton	(—) 0.03	(—) 5.03	(—) 9.31
Sugarcane	12.17	(—) 0.10	3.83
Tobacco	3.31	(—) 2.39	(—) 1.

1.2.4.6. Additional production of 11.76 lakh tonnes of foodgrains at the end of Seventh Plan over the likely level of achievement at the end of sixth Plan is sought to be achieved as under :

<u>Programme</u>	<u>Additional Production of foodgrains (lakh tonnes)</u>
By Fertilizer use	7.94
Under High yielding Varieties Programme	1.07
By Irrigation use.	0.75
By Land improvement	0.24
Other cultural practices	1.76
Total	11.76

1.2.4.7. These programmes will be implemented by development and transfer of technology and advisory services, efficient marketing and providing remunerative prices, pest control management, efficient credit, input and equipments supply organisation, quality control measures etc.

1.2.4.8 Production of oilseeds is sought to be increased by 6.26 lakh tonnes during Seventh Plan.

1.2.4.9 In case of groundnut, production will be increased partly by expanding area under summer groundnut and partly by increasing productivity in proved seed, pre-monsoon sowing, supplementary irrigation, fertilizers & micro-nutrient use, pest control management etc. In case of mustard, its cultivation will be expanded in non-traditional areas of Saurashtra region.

1.2.4.10 Production of cotton will be increased by 0.12 lakh bales by increasing its productivity only by larger coverage under hybrid and other high yielding varieties, supplementary irrigation, fertilizers and pest control measures.

1.2.4.11 Production of sugarcane will be increased by 2.07 lakh tonnes mainly by larger coverage under improved variety, supplementary irrigation and fertilizer use.

High Yielding Varieties Programme

1.2.4.12 This programme will be expanded by providing sufficient quantity of certified HYV and hybrid seeds at appropriate time and at reasonable price through the Gujarat State Seed Corporation and Gujarat State Marketing Federation. The plan of coverage is proposed for the Seventh Plan as under :

(in lakh hectares)

Crop	Base year level likely to be achieved.		Planned coverage 1989-90
	1983-84	1984-85	
HYV wheat (irrigation)	5.46	3.95	6.10
HYV paddy.	3.76	4.06	4.25
Hybrid pearl millet	12.78	11.75	13.35
Hybrid sorgum.	1.00	0.67	1.30
Hybrid maize.	1.10	1.05	1.30
Hybrid cotton.	2.78	3.84	3.75
Hybrid castor.	1.00	1.21	1.90

Supply of Seeds

1.2.4.13 It is planned to replace the hybrid seeds every year in cent per cent area and the improved seed of self pollinated crops every year in 20 percent of the total area under each crop.

1.2.4.14 Breeder/foundation seeds will be produced by the the Gujarat Agriculture University and the certified/improved seeds will be produced on the farms. Seed production programme will be organised by the Gujarat State Seed Corporation and Gujarat State Marketing Federation. The National Seed Corporation and the private seed producers will continue to function to supplement seed supply.

Use of Fertilisers

1.2.4.15 Fertilisers hold great potential for stepping up of agricultural production per hectare. Use of N.P.K. in Gujarat State has reached by now upto 47 kgs. which is planned to be rased upto 78 kgs. at the end of the Seventh Plan. N.P. and K are utilized in the ratio of 8.3:3.9:1. Nitrogen is required in large quantity as it is being depleted for most of the crops at a fast rate. Other nutrients are also necessary in the appropriate proportion. Farmers have started using these fertilizers after guidance regarding its method of use, as such as rate of application, proportion of nutrients, time and method of placement, etc. for different crops and farms situations etc. through T & V system.

1.2.4.16 The micro-nutrients though required in very small quantities, get also depleted below optimum level in many areas due to intensive cultivation of the high yielding varieties of the same crops on the same land. Under such conditions the crops do not respond sufficiently to other inputs to increase their yields. A scheme is proposed in the Seventh Plan as an innovative programme for micro-nutrients.

1.2.4.17 In view of high yielding programme, T & V system, farmers training centres, development of commercial crops and likely increase in irrigation facilities, the fertiliser consumption is planned to increase as under during the Seventh Plan.

(Lakh tonnes)

Nutrient	Likely achievement		Target 1989-90
	1983-84	1984-85	
Nitrogen (N)	3.17	3.24	5.23
Phosphorus (P)	1.47	1.59	2.46
Pottash (K)	0.38	0.37	0.65
Total (NPK)	5.02	5.20	8.34

Plant Protection

1.2.4.18 Plant protection activity in the State is implemented on need base and it is being organised more systematically as an integrated pest management programme particularly for cotton, groundnut, sugarcane and pulses. The cultivators are guided through T & V system for spraying on threshold value. Subject matter specialists (Plant Protection) have been provided in each district. It is planned to expand this programme during the Seventh Plan with the following targets.

Crop	Unit	Likely achievement		Target 1989-90
		1983-84	1984-85	
Foodgrain crops.	Lakh	15.00	19.00	26.00
Non-foodgrain crops.	hect. -do-	57.26	77.00	104.00
Total		72.26	96.00	130.00
Plant protection material (Tech. Grade)	Tonnes	6500	4250	10,000

Agriculture Extension

1.2.4.19 Main objectives of this programme are :

- to ensure that applied technology is transferred to large number of farmers within the shortest possible time to test new innovations through adoptive trials on trial-cum-demonstration farms and the farmers field.
- to encourage the farmers to be adopters of new technology by providing incentives on sliding scale, and
- to provide advisory services for balanced and optimum fertilizer use with the help of soil testing, pest control measures, selection of proper equipments, farm management decisions etc.

1.2.4.20 In consonance with these objectives of the programme of agricultural extension, the following activities are proposed to be strengthened during the Seventh Plan :

- Training and Visit System
- Demonstrations
- Crop competition
- Farmer's training
- Soil testing service
- Adoptive trials
- Innovative measures

T. V. System

1.2.4.21. This activity aims at improving the efficiency of the advisory services for the farmers by--(1) intensifying contacts between the extension workers and the farmers, (ii) upgrading the expertise of extension workers at all levels and, (iii) improving the quality of technical package through better adoptive research.

1.2.4.22. The major thrust would be on implementation of integrated approach to increase crop production of major crops like groundnut, cotton, pearl millet, wheat, paddy and sorghum for which extension services would regularly and systematically be provided to farmers with latest advice and demonstration of farming practices best suited to their specific conditions which would have immediate impact on production and income from farming.

1.2.4.23. This is a World Bank aided scheme which has completed its first phase by the end of 1983-84. The incremental staff and other requirements for the second phase have been proposed as per the guidelines of the World Bank.

Farmer's Training Centres

1.2.4.24. At present, except Dangs and Gandhinagar, all districts in the State are equipped with farmer's training centres. The farmers and farm women are trained in respect of latest developed techniques in agriculture through institutional classes and one day camps organised at village level. Out of 17 farmer's training centres, 5 are in tribal areas. Every year 3500 farmers are proposed to be trained in each such centre. These centres are required to be developed in respect of infrastructural facility and the expertise of training staff. It is proposed to upgrade three centres under World Bank aided T&V second phase project and the other fourteen centres are proposed to be strengthened from State resources during the Seventh Plan. These centres would then be used for orientation training to the staff of T & V system too.

Soil Testing Service.

1.2.4.25. Soil testing service has been started since 1960-61. At present, there are 13 stationary and mobile soil testing laboratories working in the State. Of these, 4 stationary and 5 mobile laboratories are working in tribal areas. Although the samples of soil are analysed and the result of fertilizer use are communicated through panchayat institutions, it needs proper follow up work to guide the village level workers in taking soil samples with appropriate techniques, interpreting the recommendations and organising demonstrations. A cell for performing follow-up activity is proposed to be created at each laboratory during the Seventh Plan.

Activities of Corporations

1.2.4.26. The public sector corporations which are engaged in producing or supply of agricultural inputs are being strengthened by augmenting their financial resources. The Gujarat State Seed Corporation is engaged in production and supply of hybrid and HYV seed of important crops grown in the State. An amount of Rs. 17.00 lakhs is proposed towards its share capital during the Seventh Plan.

1.2.4.27. The Gujarat Agro Industries Corporation is engaged in supply of implements, pesticides, machinery etc. and has proposed to undertake activities of processing agricultural produces viz., Castor oil, Jethi Madh, fruits, rice, bran, frozen vegetables, cold storage and pesticides expansion during the Seventh Plan. An outlay of Rs. 58.00 lakhs is proposed as loan for financing these projects during the Seventh Plan.

Special Programmes for Small and Marginal Farmers for increasing Agricultural Production

1.2.4.28. This centrally sponsored programme has been launched during the fourth year of the Sixth Plan. The objective is to give all possible assistance to SF/MF to increase agricultural productivity. An outlay of Rs. 5 lakhs per block per year was fixed in the Sixth Plan. It is proposed that the same outlay of Rs. 5 lakhs per block per year may be continued in the Seventh Plan. For the Seventh Plan, an outlay of Rs. 2,550 lakhs is proposed as state share for this centrally sponsored scheme. The Government of India has not fixed any specific targets of beneficiaries to be covered. But based on the components of the scheme, a target of 80,000 beneficiaries has been fixed per year for the State. Thus, during the Plan period total 4 lakh beneficiaries will be covered. It has been experienced that some of the programme components require some modifications for easy implementation of the programme to achieve the desired goal. The major changes proposed in the programme are as under :

(i) The cost of construction of a new well would be around Rs. 15000 to 18000. The well has to be energised and pump room constructed. The total cost is thus not likely to be less than Rs. 25000. For a small farmer with two hectares or less of land holding, to raise this amount or repay loan with interest becomes very difficult. Banks reject such applications on viability ground. This defeats the very purpose of the scheme. The rate of subsidy is proposed therefore to be not less than 50% of the total cost.

(ii) As the pattern of subsidy is to be on IRDP lines, the ceiling limit of subsidy at Rs. 3,000, Rs. 4000 or Rs. 5000 as the case may be, is also applicable under this programme. This actually makes the rates of subsidy ineffective. It is proposed to raise this to 50% or Rs. 10000 whichever is less.

(iii) The present guidelines of Government of India for the scheme stipulates that land development work should be taken in the water-sheds, where 70% of the beneficiaries are SF/MF and that 70% of land should belong to them. It is very difficult to identify water-sheds fulfilling these conditions. This condition is proposed to be relaxed and all SF/MFs should be eligible for subsidy irrespective of the percentage of holding or number of SF/MF falling in a watershed. Secondly, a big farmer in a watershed will be more advantageously placed financially because, more resources will be generated by watershed approach only because of the size of this land holding which can be utilised by him for augmenting his resources further by installation of a pumpset or digging a new well. A SF/MF will not be able to do so because comparatively less resources generated will be absorbed by the loan repayment. The subsidy

for land development is proposed to be on 100% basis for SF/MF to be shared equally by centre and the state under their scheme.

Investigation and survey work for a shelf of project.—Contingency Plan (Revenue Department's Programme).

1.2.4.29. The Scheme is in operation since 1976--77 in the districts of Kachchh, Jamnagar, Amreli, Bhavnagar, Banaskantha and Panchmahals. The objective of the scheme is to complete all preliminaries such as selection of site for relief works, preparation of plans and estimates etc., so that as and when occasion so demands, relief works can be started without loss of time. An outlay of Rs. 36.00 lakhs is proposed for the Seventh Plan.

STATEMENT

Schemewise Outlays for the Seventh Five Year Plan—1985—90

(Rs. in lakhs)

Sr. No. 1	No. & Name of the Scheme. 2	Outlay 3
I. DIRECTION & ADMINISTRATION :		
1. AGR-1	Planning machinery for agril. development.	0.10
2. AGR-2	Establishment of seed cell.	1.00
3. AGR-3	Strengthening budget and monitoring of expenditure.	1.00
4. AGR-4	Strengthening of administration(vigilance)	12.00
5. AGR-5	Special cell for disaster relief work at State and divisional level.	0.20
6. AGR-6	Strengthening of organisation for monitoring fertilizer distribution and consumption.	2.00
7. AGR-7	Strengthening soil testing organisation.	5.70
8. AGR-8	Providing staff for soil survey unit.	2.00
Sub-total-I		24.00
II. MULTIPLICATION & DISTRIBUTION OF SEEDS.		
9. AGR-9	Expansion of seed multiplication farms providing irrigation facilities and sheds.	25.00
10. AGR-10	Construction of godowns on Taluka seed farms.	7.50
11. AGR-11	Distribution of seeds and fertilizer (input kits) at subsidised rate in tribal area.	190.00
12. AGR-12	Supply of seeds and fertilizers (input kits) at subsidised rates outside tribal area.	11.00
13. AGR-13	Distribution of seeds and fertilizer (input kits) at subsidised rates to SC cultivators.	124.50
14. AGR-14	Processing facilities for Seed Corporation. (CSS)	16.36
15. AGR-15	Reserve stock for certified and foundation seeds and breeder seeds.	25.25
16. AGR-16	Establishment of seed testing laboratory.	75.00
Sub-Total-II		474.61

1	2	3
III. MANURES & FERTILIZERS :		
17.	AGR-17 To introduce micro-nutrients in high yielding crops under intensive cultivation.	2.50
18.	AGR-18 Development of Quality control laboratory and field organisation.	125.00
Sub-Total -III		127.50
IV. PLANT PROTECTION :		
19.	AGR-19 Assistance to farmers using pesticides for aerial spraying only.	140.00
20.	AGR-20 To help farmers in eradication of pests and diseases by aerochemical operations. (CSS)	83.50
21.	AGR-21 Distribution of pesticides and plant protection appliances at subsidised rates to tribal cultivators in TASP.	7.00
22.	AGR-22 Control of white grubs. (CSS)	10.00
23.	AGR-23 Additional staff for implementation of Insecticides Act 1968.	13.00
24.	AGR-24 Subsidy on pesticides and plant protection appliances to SC cultivators.	12.50
25.	AGR-25 Rodent control in the State. (CSS)	1.00
26.	AGR-26 Pilot sample survey to estimate the incidence of pest and diseases and consequent loss in crop of oilseeds. (CSS)	9.00
27.	AGR-27 Anti-locust organisation and plant protection services.	2.00
Sub-Total-IV		278.00
V. COMMERCIAL CROPS :		
28.	AGR-28 Intensive Cotton district programme including minikits in dry farming area. (CSS)	100.00
29.	AGR-29 Increased production of pulses.	14.00
30.	AGR-30 Development of pulses. (CSS)	95.90
31.	AGR-31 Sugarcane Development (CSS)	50.00
Sub-Total-V.		259.90

VI. HORTICULTURE

32	AGR-32	Expansion and development activities pertaining to vegetables, fruits, grafts, mother plants and horticulture.	2.50
33	AGR-33	Subsidised supply of fruits, grafts and plants.	30.00
34	AGR-34	Subsidised supply of fruit and grafts and plants for TASP.	9.00
35	AGR-35	Development of sericulture.	30.00
36	AGR-36	Package programme on mango in Gujarat State.	32.25
37	AGR-37	Development of fruit nurseries.	14.25
38	AGR-38	Date palm production in Kachchh district.	10.00
39	AGR-39	Ber cultivation in Gujarat State.	17.00
40	AGR-40	Promotion of vegetable cultivation in tribal area.	15.00
41	AGR-41	Koldha and Kathodia adivasi people for Horticulture crop.	3.00
42	AGR-42	Purchases of coconut seednuts for raising seedlings.	20.00
43	AGR-43	Production of hybrid seed nuts and seedlings of coconut in departmental nurseries.	8.40
44	AGR-44	Grant-in-aid to Gujarat Agricultural University for hybrid coconut.	2.10
45	AGR-45	Establishment of new fruit nurseries and strengthening of existing nurseries.	30.00
46	AGR-46	Establishment of community canning centres and kitchen gardens.	24.25
Sub-Total VI			247.75

VII. EXTENSION AND FARMERS TRAINING

47	AGR-47	Reorganisation and strengthening of extension services. (WBA)	1763.04
48	AGR-48	Reorganisation and strengthening of extension services in TASP. (WBA)	736.15
49	AGR-49	Demonstration scheme in irrigated and problematic areas in Gujarat.	3.00

1	2	3
50	AGR-50 Construction of buildings and staff quarters in soil testing laboratory under TASP.	5.00
51	AGR-51 Audio Visual van.	7.70
52	AGR-52 Farmers' Training and Education programme in tribal area equipping with aid cum exhibitiloun units in TASP.	2.50
53	AGR-53 Agricultural education tour for tribal cultivators.	2.00
54	AGR-54 Agriculture education tour for SC cultivators.	2.50
55	AGR-55 Strengthening of Farmer's Training Centres including staff and buildings.	161.25
56	AGR-56 Strengthening of farmer's training centres including staff, land, buildings under TASP.	30.00
57	AGR-57 Construction of residential and non-residential buildings and irrigation facilities on TCD Farms.	3.25
58	AGR-58 Organisation of crop competition	10.00
59	AGR-59 Organisation of crop competition for SC cultivators except Dangs district.	2.50
60	AGR-60 Organisation of crop competition under TASP.	1.35
61	AGR-61 Strengthening of adoptive research programme.	40.00
62	AGR-62 Demonstration for efficient lift irrigation devices and equipments.	20.00
63	AGR-63 Popularisation of improved agricultural implements. (CSS)	40.00
64	AGR-64 Establishment of soil testing laboratory in Surendra-nagar district.	15.00
65	AGR-65 Providing new van, office building and staff quarters for mobile soil testing laboratory at Amreli and Jamnagar.	24.00
66	AGR-66 Expansion and strengthening of soil testing laboratory for follow-up activities in the State.	30.00
67	AGR-67 Expansion and strengthening of soil testing laboratory for follow-up activities in the State under TASP.	20.00
68	AGR-68 Establishment of new TCD farms with irrigation facilities.	5.00
69	AGR-69 Strengthening of TCD farms.	7.50
Sub-Total—VII		2931.74

VIII. AGRICULTURAL ENGINEERING

70	AGR-70	Subsidised supply of production assets <i>viz.</i> Agriculture implements, bullocks/malé buffaloes and bullock carts to SC cultivators under special component plan.	100.00
71	AGR-71	Subsidised supply of production assets <i>viz.</i> Agriculture implements, bullocks/male buffaloes and bullock carts to tribal cultivators residing outside tribal area.	12.00
72	AGR-72	Subsidised supply of production assets <i>viz.</i> Agriculture implements, bullocks/male buffaloes and bullock carts to tribal cultivators under TASP.	45.00
73	AGR-73	Sprinkler, drip irrigation facilities and improved devices for lift irrigation. (CSS)	135.00
74	AGR-74	Standardisation of agriculture machineries and implements.	20.50
75	AGR-75	Assistance to Gujarat Agro-Industries Corporation for agro-services centre.	20.00
76	AGR-76	Monitoring programme for subsidised supply of bullocks, carts, implements wells, pumpsets, sprinkler and wind mills etc. in TASP.	5.00
Sub-Total—VIII			337.50

IX. AGRICULTURAL ECONOMICS AND STATISTICS

77	AGR-77	Strengthening of mechanical cultivation unit (EDP Cell).	20.00
78	AGR-78	Coordination programme at Pre-harvest forecasting yield of crop of groundnut. (CSS)	5.00
79	AGR-79	Timely reporting of estimates of area and production of principal crops. (CSS)	30.00
80	AGR-80	Improvements of crop statistics. (CSS)	17.25
81	AGR-81	Crop insurance	5.00
82	AGR-82	Creation of permanent machinery for studying the cost of cultivation and production of principal crops	58.85
83	AGR-83	Sample Survey for studying the constraints in transfer of new technology under field condition. (CSS)	1.65
84	AGR-84	Secretarial assistance to A.P.C.	2.50

1	2	3
85	AGR-85 Creation of machinery for collection and compilation of agriculture statistics from village to State level.	150.00
86	AGR-86 Estimation of production of agricultural crops viz. Mango, Chikoo and coconut.	15.00
87	AGR-87 Pilot sample survey for determining cost of production of important fruits, spices and studying their market practices. (CSS)	1.75
Sub-Total—IX		307.00
X. DRY FARMING		
88	AGR-88 Popularisation of input use in dry farming area. (CSS)	20.00
Sub-Total—X		20.00
XI. OTHERS		
89	AGR-89 Assistance to Seed Corporation	17.00
90	AGR-90 Loans to Gujarat Agro-Industries Corporation	58.00
91	AGR-91 Grant-in-aid to Indian Institute of Management.	11.00
92	AGR-92 Special programme for SF/MF for increasing agricultural production.	2550.00
93	AGR-93 Contingency Plan—Investigation and survey for preparation of Shelf of projects (R.D.)	36.00
94	Nucleus (A & RDD)	40.00
Sub-Total—XI		2712.00
Grand Total		7720.00

1.3 SOIL AND WATER CONSERVATION

1.3.1. Introduction

1.3.1.1. Soil and water are the two main basic factors primarily important for crop production. The fertility of soil and moisture directly affect agricultural productivity. The average yield per hectare in India being poor, programmes for soil and moisture conservation alongwith appropriate technology for dry farming and its extension to dry land farming need high priority in the Seventh Plan. Water shed and micro watershed planning is a principal instrument for this purpose.

1.3.1.2. Excluding the area under forests and areas under non-agricultural use an area of 157.83 lakh hectares requires soil and moisture conservation measures. These are :—

	Lakh hectares
1. Dry land where agriculture is rainfed with no surface irrigation sources	107.33
2. Areas of various irrigation systems including areas to be covered underth Narmada command	38.34
3. Kharlands	12.16
Total	157.83

1.3.1.3. The major part of agriculture falls under dryland agriculture. The Government of India have emphasised the development of areas which cannot be covered by watershed management approach. Lands which are sloppy, get eroded by runoff and lose fertility. Their moisture holding capacity is also poor. The infiltration of rain water is also poor in slopy terrain.

1.3.1.4. These lands can however be treated with soil conservation measures which will prevent soil erosion and increase the capacity of the soil to retain moisture. The fertility of soil in the rainfed areas can thus be tremendously improved by proper soil conservation measures. The integrated watershed management approach is being taken up for development of agriculture, afforestation and grass-land development and animal husbandry on a coordinated basis. These measures increase productivity of the soil to a very great extent and can raise the crop production per unit area. Further, the severity of drought which periodically affects the State can also be reduced through these measures and even with limited rainfall, maximum crop can be grown. The effects of sudden floods which also cut the dry land areas shall also be minimised and through these measures. It will also prevent ecology deterioration and lead to better eco-system. Prevention of soil erosion also directly benefits the irrigated areas by preventing or minimising siltation of dams and/or reservoir and thus increase the life of the dams. The chances of heavy floods are also reduced. Again, the cost of water shed treatment and management per hecture of land is far less as compared to surface irrigation. The time lag in creating irrigation potential and its utilisation is very great. The benefit of watershed treatment is immediate which recharges groundwater from the very next rainy season as addition to preventing soil erosion. Moreover, fallow land can be brought under plough through reclamation programme.

1.3.1.5. Thus, the programme of watershed management needs to be taken on a far wider scale for the development of dry farming areas as it is the only main

source for raising the per hectare production. The total area to be covered is 107.33 lakhs hectares. Out of this, area still to be treated is 91.29 lakh hectares. It is estimated that 30% of this area shall be treated by the farmers themselves and hence a net area of 63.90 lakh hectares require soil conservation treatment.

1.3.2. Review of Progress

1.3.2.1. The works of soil conservation are carried out by the department of Agriculture. In the beginning, the main activity was contour bunding in the dry areas and land levelling in irrigation commands. Subsequently, the State took up other soil conservation activities like land levelling, farm ponds and gully plugs.

1.3.2.2. The Gujarat State Land Development Corporation (GSLDC) was established in 1978 with the intention of obtaining institutional finance for soil conservation works both in dryland areas and in command areas. In July 1982, the entire soil conservation activities in rainfed areas was transferred to GSLDC. Thus there is only one agency now to implement all soil conservation activities including ravine reclamation in dry rainfed areas. The Corporation had sent 45 projects costing Rs. 1713.90 lakhs for treatment of dry and ravine lands on watershed basis to NABARD covering an area of 37361 hectares. Out of these projects 17 projects have been sanctioned costing Rs. 323.74 lakhs covering an area of 18537 hectares.

1.3.2.3. Achievements upto 1979-80 are :—

Plan period	Physical achievement in terms of contour bunding equivalents (Lakh hectares)
First Plan 1951-52 to 1955-56	0.24
Second Plan 1956-57 to 1960-61	1.82
Third Plan 1961-62 to 1965-66	3.41
Three Annual Plans 1966-67 to 1968-69	2.56
Fourth Plan 1969-70 to 1973-74	4.60
Fifth Plan 1974-75 to 1977-78	4.98
Annual Plan 1978-79	0.53
1979-80	0.76
Total ...	18.90

Sixth Plan Progress

1.3.2.4. During the Sixth Plan the, main objectives continued to cover maximum areas under soil conservation and carry out works on a watershed basis. With some experience of the watershed approach from 1979-80 the technique adopted was rainfed and the officers and staff were better trained to work on a watershed basis. Thus soil conservation works were carried out on a watershed basis with improved technique and with less danger of works being washed away.

1.3.2.5. In Surat, Valsad and Dangs districts fields up to one acre were converted into Kyaries by levelling and bunding of the boundaries for growing rice (Paddy). During the Sixth Plan, the physical progress is as under :

Item	Total area to be covered	Level at the end of (Area in lakh hectares)				
		1980-81	1981-82	1982-83	1983-84	1984-85
Soil and water conservation	Contour Bunding	19.40	19.90	20.30	21.30	22.90
	equivalent	(0.50)	(0.50)	(0.40)	(1.00)	(1.60)
	Actual physical area covered	14.99	15.165	15.470	15.800	16.040
		(0.146)	(0.175)	(0.305)	(0.330)	(0.240)

Figures in the brackets indicate the net achievement.

1.3.3. Strategy of Development

1.3.3.1. The general policy of the State is the economic and social upliftment of the people and their welfare. Since 70% of the population depends for its livelihood upon agriculture and landless labourers depend solely upon agriculture it is of paramount importance to develop the rural areas. Land is also a non-renewable resource and we have to get maximum output from limited area. By proper watershed managements and development, high production of foodgrains and economic prosperity and stability for farmers can be ensured. The development programmes will specially benefits small and marginal farmers and farmers belonging to scheduled castes and scheduled tribes. In the Seventh Plan, the emphasis will be on carrying out works in tribal areas, and in drought prone and desert areas.

1.3.3.2. The Plan programme for the soil and water conservation sub-sector for the Seventh Plan 1985-90 has been formulated with the following considerations :

—It is proposed to accelerate the pace of implementation of the integrated approach towards land and water utilisation by adopting new management system on watershed basis.

—It is proposed to increase the coverage of land under various soil conservation works from 16.04 lakh hectares at the end of 1984-85 to 17.878 lakh hectares of the end of Seventh Plan.

1.3.4. Programmes proposed for Seventh Plan 1985-90

1.3.4.1. An outlay of Rs. 5763 lakhs is provided for the Seventh Plan 1985-90, the broad break up of which is as under :—

Programme	(Rs. in lakhs)
I. Agriculture and Rural Development Department Programmes	
Soil Conservation works	5176.25
Other Programmes	223.75
Total :— A & R.D.D. Programme	5400.00
II. Irrigation Department	
Ghed Area Development	243.00
Khar Land Development	120.00
Total—Irrigation Department	363.00
Grand Total	5763.00

Soil Conservation Works

Non-Tribal Area Scheme

1.3.4.2. Soil and water conservation measures like contour bunding, nala plugging, terracing, land reclamation, improvement of pastures, farm ponds etc. are under taken on watershed management approach in non-tribal area of the State.

1.3.4.3. Under this scheme it is proposed to cover 1.08 lakh hectares area with an outlay of Rs. 31.80 lakhs in the Seventh Plan.

Tribal Area Scheme

1.3.4.4. This is a scheme for development of land in the tribal sub-plan area particularly the land belonging to the farmers of scheduled tribes. The pattern of the scheme is the same as general scheme. The works are to be carried out on the basis of 50% subsidy. The remaining 50% amount will be recovered in 10 equal instalment from the farmers.

During the Seventh Plan period 1985-90 an outlay of Rs. 881 lakhs has been provided with a target to cover 71585 hectares.

Special Loan Account facilities for ineligible farmers.

1.3.4.5. This scheme provides special Loan Accounts facilities for ineligible farmers in the Tribal and Non-Tribal areas and is meant to cover the area of about 30% of the total farmers who will be ineligible for bank finance.

1.3.4.6. An outlay of Rs. 485 lakhs, has been provided in the Seventh Plan for Tribal Area Sub-Plan and Rs. 490 lakhs have been provided for farmers in non-tribal areas.

Paddy cultivation

1.3.4.7. Agricultural land of Surat and Valsad districts suitable for paddy cultivation. With a view to encourage Adivasi cultivators for paddy cultivation, a scheme was formulated for converting one acre of land of the holding of small and marginal farmers to kyari land. An amount of Rs. 75 lakhs has been provided for the Seventh Plan with a target of covering 2770 hectares and extending benefits to about 1845 families.

1.3.4.8. The Dangs district has peculiar conditions of land holding and topography. Special emphasis on soil conservation is very essential for this area. Hence, it is proposed to convert lands of farmers into levelled land and, whenever possible, to kyari lands and to train the farmers to switch over to paddy cultivation. The present policy is that lands to the extent of one acre of holding of any farmer will be converted to kyari. Now, it is proposed that both the limitations of holdings as well as total area for work in the holding of one farmer should be relaxed and Kyari making to the tune of 2 hectares should be done in the holding of each individual farmer of Surat, Valsad and Dangs Districts.

1.3.4.9. An outlay of Rs. 60 lakhs has been provided for the Seventh Plan, 1985-90 for Dangs District with a target to cover 1070 hectares and to extend the benefit to about 715 families.

World Food Programme

1.3.4.10. It has been proposed to implement World Food Programme under soil conservation activities in the eight tribal districts of the State adjoining to the

eastern border. In this programme, special care has been taken to focus the work on small and marginal farmers and landless labourers. During the implementation of programme, food like wheat, pulses and oil will be supplied to labourers at a subsidised rates. This will help in improving the economic general health and conditions of the people. For this programme a token provision of Rs. 5.25 lakhs has been made.

Other Programme

International Aid Programme. (E. E. C.)

1.3.4.11. To avail of the aid from E. E. C. an outline for Watershed Project has been prepared. The work will be carried out on watershed basis in the Sixteen districts of the State.

The objectives are :—

- To bring the fallow and ravine land under cultivation.
- To control and guide water run-off.
- To preserve moisture and increase Soil Water level.
- To store water in order to provide life saving irrigation.
- To increase the production.

1.3.4.12. It is estimated that the work will be carried out in 4 lakh hectares at an estimated cost of Rs. 10.84 crores over a period of five or more years. During the Seventh Plan period a token provision of Rs. 5 lakh has been made as the scheme has yet not materialised and started functioning.

Share Capital for GSLDC. Ltd.

1.3.4.13. The quantum of loan to the farmers shall increase tremendously. It would therefore be necessary to strengthen the equity base of GSLDC to increase its capacity to get loans from financial institutions. Further, a provision has also to be made for the purchase of equipments for soil conservation works through bank finance wherein margin money is to be provided by GSLDC. For this purpose an amount of Rs. 200 lakhs has been provided for the Seventh Plan.

State Land Use Board

1.3.4.14. National Land Resource Conservation and Development Commission has emphasised the need for proper utilization of land resources and have recommended establishment of a State Land Use Board. The Land Use Board shall draw up a proper land use policy. Nucleus staff headed by a senior officer has to be provided to support the State Land Use Board. The Board might be chaired by Hon. Chief Minister and shall have various state functionaries and other specialists in other fields as members. An outlay of Rs. 5.00 lakhs is provided for this purpose during the seventh plan.

River Valley Projects.

1.3.4.15. This is a Fully Centrally Sponsored Schemes for carrying out Soil Conservation Works in catchment area of river valley project of Ukai, Mahi and Daman-ganga. The Scheme will be continued so as to check the run-off due to rain water and to control sedimentation process. For this Scheme the Central Government is expected to provide an outlay of Rs. 600 lakhs for the Seventh Plan with a target to cover an area of 29500 hectares under various Soil and Water Conservation measures.

Irrigation Department

Development of Ghed Area.

1.3.4.16. The Ghed area is situated in about 1452 Sq. kms. of area divided in two parts Barda Ghed and Sorthi Ghed in the north-west of Junagadh district. The Barda Ghed comprises of 30455 hectares of cultivable land while the Sorthi Ghed comprises of 79,950 hectares. The Ghed area is a vast deltaic region of the major west flowing rivers viz., Minsar, Bhadar, Ozat, Madhuvati, Satali etc., and bounded by the Arabian sea-coasts on the south-west. All along the coast there is a limestone ridge the width of which varies from one furlong to one mile. The above rivers have made their way through this limestone ridge and have-formed outlets into the sea. As the riverbed gradients in this deltaic area are very flat and most of the rivers lose regimes, the flood water causes, inundation and erosion of the surrounding cultivable lands along with the salt affluence. During the floods of 1980 monsoon the area was affected very badly.

1.3.4.17. In order to find out solutions to the aforesaid problems, the proposals are framed for widening and regarding the rivers, constructing tidal regulators, drainage and reclamation works, providing direct irrigation by lifts and providing communication facilities, to provide electrically operated steel gates on the regulators to effectively prevent ingress of sea water. About 29600 hectares of land has been covered by quick drainage widening and regarding rivers and new channels in these areas while an area of about 2420 hectares has been reclaimed. The major bottleneck in the main work was the availability of the land. The work of tidal regulators was being done by using the existing inadequate water weir structures in the low level causeways-for crossing rivers, these are now being modified by the technique adopted in salinity tidal regulator works with full hydrological design. In addition, efforts are being made to link up the storage by cross channels and diversion, wherever possible.

1.3.4.18. In view of the above, the integrated development of the Ghed area is necessary. For the development of this area a comprehensive master plan has been prepared. An outlay of Rs. 243 lakhs is provided for the Seventh Plan 1985-90.

Kharland Development.

1.3.4.19. Gujarat is having a long coastline of about 1600 Kms. of length. The land lying along the sea coast has remained uncultivated because of adverse effects of tidal water. The land remaining submerged in the rainy season and for the rest of the year it is affected by tidal waters with the result that no vegetation is possible. In Gujarat about 11.27 lakh hectares of khar land in Valsad, Surat, Bharuch and Kheda, districts have been adversely affected by coastal salinity.

1.3.4.20. This scheme is implemented by the Kharland Development Board, established under the Khar Land Act, 1963, under the provisions of this act the Board undertakes protection work of coastal Kharland against ingress of sea water. Moreover the Board undertakes schemes such as protection where assured irrigation facilities are available, construction of earthen embankment along with the cross drainage works to stop the ingress of tidal water etc., The Board has completed 33 different schemes and an area of 20400 hectares has been protected. Besides, 2764 hectares of land has been protected under old State Bunds in Bharuch district, 33500 hectares have been disposed of for salt industries, about 31000 hectares which always remain under effect of tidal water is not feasible to reclaim. It is proposed to continue the mobile soil testing laboratory under this programme and to recommend corrective measures to the farmers. The demonstration will also be organised to educate the farmers for benefits of Kharland reclamation and methods of improvements under the command area of Ukai, Kakarapar and Shetrunji irrigation Projects. As per the provision of the Khar Land Act, the expenditure on land reclamation is to be borne by the State Government and the beneficiary in the ratio of 40 : 60 the Government Scheme being the subsidiary.

1.3.4.21. For this scheme an outlay of Rs. 120 lakhs has been provided for the Seventh Plan.

STATEMENT

Schemewise Outlays for the Seventh Five Year Plan--1985-90

(Rs. in lakhs)

Sr. No.	No. and Name of the Schemes.	Total
1	2	3
I. A. & R.D.D.		
(1) Soil Conservation		
(A) Non-Tribal Programme:--		
1	SLC-1 Soil conservaton including contour bunding, terracing, nala plugging etc. in non-tribal. area.	3180.00
2	SLC-2 Sp. loan account facility for ineligible farmers in non-command areas, ravine reclamation areas and watershed areas in non-tribal areas	490.00
Sub-Total:-(A)		3670.00
(B) Tribal Programme:--		
3	SLC-3 Soil Conservation including contour bunding, terracing, nala plugging etc. in TASP.	881.00
4	SLC-4 Sp.loan account facility for ineligible farmers in non-command areas ravine reclamation areas and watershed areas in TASP.	485.00
5	SLC-5 Kyari making for paddy cultivation in Surat & Valsad Districts.	75.00
6	SLC-6 Kyari making for paddy cultivation in the Dangs District.	60.00
7	SLC-7 International Aid Programme(WFP)	5.25
Sub-Total (B)		1506.25
Total:-(i) Soil Conservation.		5176.25
(2) Other Programmes		
8	SLC-8 International Aid Programme (EEC)	5.00
9	SLC-9 Share Capital for Gujarat State Land Dev. Co. Ltd. A'bad.	200.00
10	SLC-10 Land use Board	5.00

1	2	3
11	SLC-11 Land Improvement unit.	3.75
	Nucleus Budget.	10.00
	Sub-Total (2) Other Programmes	<u>223.75</u>
	Total:-(A & R.D.D.)	<u>5400.00</u>
II. IRRIGATION DEPTT.		
12	SLC-12 Ghed Area Development.	243.00
13	SLC-13 Khar Land Development	120.00
	Total:-Irrigation Deptt.	<u>363.00</u>
	Grand Total.	<u>5763.00</u>

1.4 ANIMAL HUSBANDRY

1.4.1. Introduction

1.4.1.1. Gujarat is famous for many breeds of cattle, buffaloes and sheep. Among the cattle, Gir and Kankrej breeds are dual purpose breeds. Among the buffalo there are three good quality breeds viz., Surti, Mahesani and Jafrabadi. Patanwadi and Marwadi are the famous sheep breeds in the State.

1.4.1.2. Among breedable cows, Gir breed accounts for 40%, Kankrej, 37%, exotic and cross-bred 1% and non-descript 22%. Among breedable buffaloes, Surti breed accounts for 40% Mahesani 28%. Jafrabadi 25%, Banni 2% and non-descript 5%. Among the sheep, Patanwadi accounts for 52%, Marwadi 44%, and non-descript 4%. Among goats, there are 5 kinds of breeds i.e. Kachchhi, Gohilwadi, Zalawadi, Mahesani and Surti. The State is also famous for its Kathi breed of horses.

1.4.1.3. As per the live stock census of 1977, there were in Gujarat, 16.97 lakh breedable cows, 20.93 lakh breedable buffaloes, 15.92 lakh sheep and 30.84 lakh goats. This has gone up to 19.58 lakh breedable cows, 25.57 lakh buffaloes, 23.57 lakh sheep and 33.00 lakh goats in 1982.

Production of Milk

1.4.1.4. Though number of animals have increased production and productivity have not kept pace. During 1977-78, the total milk production in the State was 21.88 lakh M.T. and this went up to 25.29 lakh M.T. during 1982-83. In terms of productivity, the average daily milk yield has gone up from 2.117 in 1977-78 to 2.193 lt. in 1982-83 in case of cows; in the case of buffaloes the average milk yield seems to have gone down from 3.368 to 3.292 litres.

1.4.1.5. The importance of Animal Husbandry and Dairy sector in improving the rural economy by providing a supplementary source of income is well recognized.

1.4.2. Review of Progress

Cattle Development

1.4.2.1. During the Sixth Plan existing 4 cattle breeding farms were expanded to supply more quality bulls for dispersal in the villages.

1.4.2.2. Eight intensive cattle development blocks along with 640 livestock sub-centres covering 6,40,000 breedable cows and buffaloes were continued.

1.4.2.3. Forty cross breeding centres were established during the Sixth Plan. As against the cumulative target of performing 4.67 lakh artificial inseminations with exotic bull semen 2.90 lakh artificial inseminations were performed.

1.4.2.4. One liquid nitrogen plant is already established at Rajkot the end of the Sixth Plan.

1.4.2.5. The training centre attached to the cattle breeding farm-Mandvi (Surat) has trained 1834 adivasis in modern animal husbandry practices. One more such training centre is established at the cattle breeding farm-Tharad (B.K.).

1.4.2.6. Under the scheme for supply of milch animals 43057 ST families and SC families were assisted.

Poultry Development

1.4.2.7. There are 10 intensive poultry development blocks, 5 district poultry extension centres, 5 poultry breeding farms with attached hatcheries, 4 chick rearing centres, 6 district poultry farms, 7 poultry demonstration-cum-extension centres, 10 poultry training centres and one poultry nutrition laboratory functioning in the State for providing all the prerequisite of poultry farming to the poultry farmers. Till the end of 1984-85, 16411 participants were trained in poultry farming.

1.4.2.8. Under the poultry production programme, SC/ST/small /marginal farmers ,agricultural labourers and other weaker sections of society are assisted in establishing poultry units. By the end of 1984-85 14190 beneficiaries from the weaker sections of society, 3895 beneficiaries from the scheduled Tribes and 176 beneficiaries from the scheduled castes were assisted to establish poultry units.

Sheep and Wool Development

1.4.2.9. Two intensive sheep development projects established for the districts of Bhavnagar and Kachchh were continued.

1.4.2.10. Under the cross breeding programme, 300 rams of superior genetic material of cross breed-Patanwadi and Marwadi breeds are supplied to the sheep breeders to cover 7.30 lakh of breedable ewes by artificial insemination.

1.4.2.11. The Gujarat State Sheep and Wool Development Corporation is associated with the Department of Animal Husbandry in the above programmes with their infrastructure of large scale sheep breeding farm at Hingolagadh in Jasdan Taluka of Rajkot District.

1.4.2.12. One centre at Viramgam in Ahmedabad District and one centre at Modasa in Sabarkantha District have been established for providing vaccination, medication and drenching to migratory flocks of sheep by the end of the Sixth Plan.

1.4.2.13. Under the beneficiary oriented programmes, 2856, sheep units were assisted by the end of the Sixth Plan.

Fodder Development

1.4.2.14. Five seed production farms were established by 1984-85. Under the integrated fodder development programme, assistance was provided to the beneficiaries for seed multiplication centres in 164 hectares, 8285 demonstration plots, 4242 silopits and 706 chaff cutters during the Sixth Plan.

1.4.2.15. Six village fodder farms were established and 2323 Kgs. of improved fodder seeds produced at the production farm, Mandvi (Surat) were utilised for fodder production during the Sixth Plan.

Veterinary Care

1.4.2.16. For providing necessary veterinary care and animal health cover to the State livestock, 462 first-aid veterinary centres, 13 mobile units and 224 veterinary dispensaries were functioning at the end of 1980. Three polyclinics, 561 first-aid centres and 25 mobile units were established by the end of Sixth Plan.

1.4.2.17. Under the disease control programme, Animal Vaccine Institute is established at Gandhinagar for production of different kinds of vaccines. The details

regarding the various vaccines produced by this institute are presented in the table below.

(No. of doses in lakhs)

Year	Vaccine doses produced			
	H. S. vaccine	B. Q. vaccine	Entero-toxaemia	F. D. R. D. F' strain
1981—82	20.00	5.00	5.50	1.00
1982—83	20.55	0.32	9.00	..
1983—84	23.69	4.98	7.07	1.50
1984—85	30.83	6.42	10.89	0.94

1.4.2.18. The number of departmental personnel deputed for higher education in different of disciplines of veterinary science and animal husbandry (1) M. V. Science -19, (2) Ph. D.-2 and (3) Post graduate Diploma-7.

Other Livestock Development

1.4.2.19. One camel breeding farm is functioning at Dhori in Kachchh district.

1.4.2.20. Expansion of the acisting horse breeding farm in Saurashtra was undertaken during Sixth Plan.

Management and Marketing

1.4.2.21. The Gujarat State Poultry Farmer's Co-operative Fedaration and the Gujarat Sheep and Wool Development Corporation were set up which helped in organising the marketing of eggs, poultry products and wool. A wool grading centre at Jamnagar with a sub-centre at Bhuj (Kachchh) having a capacity to grade 1.20 lakh kgs. of wool is handed over to the Gujarat Sheep and Wool Development Corporation. This Corporation has installed a carding plant with a capacity to process 200 kgs. of wool per day at Bhuj (Kachchh District).

1.4.3. Strategy for Seventh Plan 1985-90

1.4.3.1. The emphasis during the Seventh Plan will be on low cost livestock production on the basis of low technology, mixed farming for sustaining and improving the income of small and marginal farmers. A shift in emphasis from cattle and poultry to other species like goats, sheep donkeys and pigs is also proposed. Cross breeding, preservation of local breeds and R and D efforts are other important ingredients of the strategy. It is also envisaged that the development under the sector will have the integrated rural development approach and the programmes undertaken will seek for realising complementary aspects necessary for IRDP.... Accelerating sheep production programme, development of poultry cooperatives with supporting services, pricing marketing and trading facilities at all levels and consolidation of the Operation Flood-II Programme are the other aspects of the strategy for the Animal Husbandry sector.

1.4.3.2. The availability of sufficient number of animals with high productivity is the core of developmental strategy for the Animal Husbandry sector. This could be achieved (i) by development and conservation of indigenous breeds of cattle and buffaloes and (ii) by adopting an effective cross breeding programme in non-descript animals. In all species of livestock, Gujarat is having some well-known indigenous species which, if preserved and upgraded, can contribute sizeable increase in the output.

1.4.3.3. The importance of good draft animals like bullock, camels, mules, horses, buffaloes and donkeys need no emphasis in an agrarian set-up. Especially in the context of fast depleting sources of non renewable energy necessitating conservation of energy as well as improving renewable sources of energy, a well conceived programme for the development of good draft animal is of great significance. The utilisation of draft power in Gujarat is one of the lowest in the country. Gujarat stands tenth in the country in draft power with 30.59 lakh working animals. In terms of availability of draft animal power per hectare, Gujarat stands Sixteenth in the country with 0.180 horse power. The strategy for Seventh Plan will therefore, include measures to improve the animal power in the State.

1.4.3.4. The role of good grazing and pasture land for increasing production of grass fodder is critical in the development of Animal Husbandry and Dairying. In Gujarat, the overall ratio of animals to pasture works out to 21.5 animals per hectare. This ratio varies from 9.5 animals per hectare in Junagadh district to 67.8 animals per hectare in Panchmals. Common grazing lands are overgrazed and subject to encroachment. It is difficult to take up any development programme on these lands when large number of animals are owned by nomads like Rabaris and Bharwads.

1.4.3.5. Fodder development farms fodder seed multiplication units and supply of fodder mini-kits are proposed to be taken up during the Seventh Plan. Farmers will be assisted in buildings silo-pits, chaff-cutters and other needy items. The fodder growing programme undertaken under IRD will be supplementary to the efforts made by the Department.

1.4.3.6. At the end of the Sixth Plan, there are 224 veterinary dispensaries 561 first aid veterinary centres, 25 mobile units and three poly-clinics. As per the recommendations made by the National Commission on Agriculture, there should be one veterinary unit for every 10,000 cattle units by the year 1990. In order to achieve this target, it would be necessary to have, in all, 1250 veterinary units by 1990. As a part of this objective and in conformity with the overall strategy for the Seventh Plan, it is proposed to convert the existing 435 ICDP centres, 44 key village centres, 40 intensive cross breeding centres, 50 special livestock development subcentres and 561 FAVCs into livestock extension centres. These re-organised centres will be providing services like breeding, feeding, veterinary care, marketing, extension and collection of statistics etc.

1.4.3.7. Improving the management of livestock farms, poultry farms, and fodder farms for supply of quality inputs should under-score the new strategy for this sector. The adoption of new technologies in these farms and dis-semination of the new technology through demonstration and extension centres to the animal owners will be one of the essential ingredients of the strategy for this sector. Improving farm management practices and placing people with the adequate qualification and experience in the management of these farms also appear necessary.

1.4.3.8. In Gujarat, as many as 40 per cent of the beneficiaries are given milch animals and poultry under IRDP. Providing input for improving the yield, extending health care facilities and enabling adequate marketing arrangements are very vital aspects for raising the beneficiaries above the poverty line. The strategy

will aim at providing required infrastructural and back-up support for the anti-poverty programmes which is likely to expand during the Seventh Plan.

1.4.3.9. One of the main objectives of the activities is to increase the net income of the animal owners. This will be possible only if they get remunerative prices. If this is not possible, the animal owners would lose interest in maintaining their assets and the poorer section will be the worst sufferers. In the milk processing and marketing sector, a good number of institutions have come up in a good way. It is necessary to further extend the activities of this organisation to all areas of the State. In poultry and sheep, the institutions have not made any significant dent on a State wide scale and such organisations in the corporate sector as well as the cooperative sector are required to be strengthened adequately during the Seventh Plan.

1.4.4. Programmes for the Seventh Plan 1985-9s

1.4.4.1. An outlay of Rs. 18.20 crores has been proposed for the seventh Plan the broad break-up which is as under :—

(Rs. in lakhs)

Programme	Outlay for Seventh Plan-1985-90
1	2
Direction and Administration.	80.00
Veterinary Education and Training.	5.75
Veterinary Services and Animal Health	691.65
Investigation and Statistics.	17.25
Cattle Development.	543.85
Poultry Development	187.20
Sheep and Wool Development	73.35
Other Livestock Development	68.45
Fodder and Feed Development	57.50
Nucleus	95.00
TOTAL	1820.00

Direction and Administration

1.4.4.2. In pursuance of the strategy of development it would be necessary to strengthen the administrative machinery at State, division and district level. An outlay of Rs. 80.00 lakhs is provided for the Seventh Plan.

Veterinary Education and Training

1.4.4.3. In order to enhance knowledge and competency in different disciplines, it is proposed to depute the officers for undergoing post graduate training leading to M.V.Sc. Post Graduate- Diploma and Ph.D. courses. Similarly, it is also proposed to depute, officers for undergoing training in the latest development of technology in the field of Animal Husbandry for better implementation of the programmes and to depute officers who are in the job for undergoing refresher course to update, their knowledge. Animal Husbandry statistics provide useful data for better planning. It is also proposed to depute officers / persons of the statistical wing to enhance the knowledge and competence in the field of Animal Husbandry statistics. Under this training programme, the targets proposed are as under :—

Item	No. of Officers to be trained during Seventh Plan period
M. V. Sc.	45
Post Graduate Diploma	10
Ph. D.	15
Foreign Training	20
Refresher Courses	100
Training in Animal Husbandry (Statistics)	47

1.4.4.4. For this programme, an outlay of Rs. 5.75 lakhs is provided for the Seventh Plan.

Veterinary Services and Animal Health

1.4.4.5. The Animal Husbandry programme aims to improve the production capacity of livestock by providing adequate health cover.

1.4.4.6. It is proposed to establish 100 veterinary dispensaries, 3 mobile units and 2 poly-clinics during the Seventh Plan so as to provide veterinary and other Animal Husbandry services to the rural areas intensively.

1.4.4.7. The centrally sponsored scheme, "Control of Livestock Diseases of National Importance" for the control of T.B. Brucellosis, Pullorum Canine-Rabies taken up during the Sixth Plan is proposed to be continued and it is proposed to increase one more unit during the Seventh Plan.

1.4.4.8. Animal disease surveillance unit taken up during the Sixth Plan, as per the guidelines of Government of India, is proposed for continuation during Seventh Plan duly strengthened. Government of India have already agreed to continue the assistance upto the year 1990.

1.4.4.9. It is also proposed to subsidise the supply of 7.00 lakh doses of foot and mouth disease vaccine to cattle owners. Such protection will keep the animals free from foot and mouth disease and build up production potential. If such prote-

ction is not ensured , when affected with foot and mouth disease, they will lose milk production and drought capacity.

1.4.4.10. Giving protection against contagious and infectious diseases is one of the primary responsibilities of State Government. Sera and vaccines required for this purposes were being purchased from I. V. R. I. Izatnagar, Maharashtra State, other States and private vaccine institute. Animal Vaccine Institute was established at Gandhinagar and commissioned in 1979. It manufactures vaccines, viz., Hoemorrhagic Speticamia Vaccines, Black Quarter Vaccine, Entri ternaemia, Vaccine and Ranikhet Disease Vaccine (F1 Strain).

1.4.4.11. Aiming at self sufficiency in all aspects the State Government has already taken advance action for developing this Institute and has prepared a master plan with the help of agro-consultancy services. Designs for the buildings required for this master plan are in final stage. The expansion programme would be completed on priority basis and the required sira vaccines and immuno biologicals will be produced during the Seventh Plan. It is proposed to produce the following vaccines during the Seventh Plan :—

(Doses in lakhs)

Name of the Vaccine	No. of doses to be during the produced Seventh Plan
H. S. (A.P.)	56.00
H. S. Oil	10.00
Black Quarter	15.00
Enterotoxaemia	15.00
Anthrex Vaccine	5.00
Brucellosis	1.60
Sprinchefosis	5.00
Sheep Pox Col culture	5.75
Sheep Pox formalised GOI	5.75
Renikhet F Strain	51.00
Ranikhet R & B Strain	41.00

1.4.4.12. Production of rinderpest disease vaccine will be taken only when this Institute is fully equipped in all aspects to meet the requirements of all vaccines and immuno biologicals.

1.4.4.13. For the veterinary services and animal health programme, an outlay of Rs. 691.65 lakhs is provided for the Seventh Plan.

Investigation and Statistics

1.4.4.14. The existing statistical unit is providing data base for planning, execution and appraisal of Animal Husbandry programmes. However, there is considerable data-gap. Hence it is proposed to take up different surveys/studies including the survey to measure the availability of feed and fodder in the State and integrated sample survey to measure the production of major livestock products, such as milk, eggs and wool alongwith cost production studies during the Seventh Plan. An outlay of Rs. 17.25 lakhs is provided for the Seventh Plan.

Cattle Development

1.4.4.15. Under the programme of cattle development, the following programmes are proposed for the Seventh Plan.

Preservation of Indegenous Breeds

1.4.4.16. Gujarat has well defined and recognised breeds of cettel and buffaloes. Cattle breeds are dual purpose animals and buffaloes breeds are good milk producers. It is proposed to continue selective breeding in Kankrej and Gir breeds, which will be restricted to those high yielding animals *i.e.* 1200 litres of milk for Kankrej & and 1500 litres for Gir per lactation of 305 days.

1.4.4.17. There are, at present, four cettel breeding farms, two for Kankrej breed, one for Gir breed and one for both Kankrej & exotic. They are :—

- Cattle Breeding Farm, Morvi (Rajkot) for Gir breed.
- Cattle Breeding Farm, Bhuj (Kachchh) for Kankrej.
- Cattle Breeding Farm, Thara (B.K.) for Kankrej.
- Cattle Breeding Farm, Mandvi (Surat) for both Kankrej & Exotic.

1.4.4.18. Gujarat Agriculture University is maintaining its livestock farms at Dantiwada, Junagadh, Anand and Navsari. National Dairy Development Board has a bull mother farm at Bidaj (Ahmedabad) for Jersey & H.F. breed. There is one buffalo breeding farm for Surati breed at Dhamrod (Surat) run by the Govt. of India.

1.4.4.19. It is proposed to expand the existing cattle breeding farms to achieve the following goats :—

- To bring more land under fodder cultivation.
- To bring more land under irrigation.
- To increase the strength of the breeding herd.
- To provide extension facilities with particular reference to breeding, feeding and improved management practices to area surrounding the cattle breeding farms.

1.4.4.20. It is envisaged to establish one buffalo bull mother farm at Gandhinagar. Pedigree bulls will be provided for breeding purpose to village panchayats and other institutions for natural breeding.

Gaushala Development

1.4.4.21. There are a number of gaushalas engaged in cattle breeding work for the preservation of indigenous breeds of cattle. Under gaushala development, these institutes are assisted for :-

- increasing the breeding herd.
- increasing the facilities *viz.*, cattle sheds, store and other requirements.
- bringing land under improved varieties of fodder and
- developing irrigation facilities for growing irrigated varieties of fodders etc.

1.4.4.22. Government of India has evolved a similar scheme for bigger institutes with better facilities for taking up the above on scientific lines. Male calves are also released by these institutes to village panchayats and others for rearing and utilising them for breeding purpose.

1.4.4.23. It is also envisaged to have progeny testing programme for getting at least about 25 PT bulls during the Seventh Plan and to continue the programme thereafter.

Cross Breeding

1.4.4.24. Cross breeding programme would be taken up on a large scale in addition to selective, breeding for increasing the milk production. Both Jersey and H. F. superior exotic germplasm is to be used in cross breeding. Exotic inheritance is to be maintained at 50 per-cent blood level in general, which may be extended to 62.5 per cent only under special circumstances.

1.4.4.25. All inputs *viz.*, liquid nitrogen containers of different sizes, artificial insemination guns, frozen semen, liquid nitrogen, pipettes, mobility, functional and non-functional capital requirements and other facilities of life saving medicines, feed additives etc., are proposed. To meet the requirement of liquid nitrogen, it is proposed to establish three LN₂ plants in addition to the existing one plant at Rajkot, about 60 percent of LN₂ requirement will be met by those four plants and 40 per cent will be procured from IPCL and fertilizer plants.

1.4.4.26. Central semen collection station at Mahesana and other stations at Rajkot and Surat will be strengthened to meet the requirement of frozen semen.

1.4.4.27. Breeding of buffaloes with frozen semen of Mahesani/Jafarabadi/Surti buffalo bulls semen is also proposed to be intensified.

1.4.4.28. It is proposed to locate 25 exotic cross bred bulls at veterinary dispensaries/FAVCs for natural services, in the areas where receptibility for artificial insemination technology is poor.

1.4.4.29. There are eight intensive cattle development projects with 640 sub-centres for providing inputs for cattle development work in milk shed areas of the State. In addition, there are 44 centres under Key Village Scheme, 40 centres under intensive cross breeding programmes, and 50 centres under Special Livestock production programme performing artificial insemination work in the rural area.

1.4.4.30. It is proposed to provide integrated facilities for livestock by recognition of the centres. These centres will be well equipped to provide the following facilities :--

--Breeding facilities by artificial insemination and other methods.

--Feeds and fodder development.

--Sexual health coverage services.

--Extension.

--Veterinary care and animal health services.

--Other works viz., milk recording, herd registration, rearing of bull calves and heifers; milk yield competition, calf rallies, etc.

1.4.4.31. It is also envisaged to include the existing FAVCs and veterinary dispensaries to provide similar facilities.

1.4.4.32. It is proposed to establish 160 more livestock development centres during the Seventh Plan.

1.4.4.33. As a result of such action, one centre/unit will cover about 7500 cattle units and its area of operation will be reduced. State will be ahead of the NCAR guidelines. Veterinary Officers and/or Livestock Inspectors in-charge of such veterinary dispensaries and units will be provided mobility and/or conveyance allowance for providing door to door input facility and treatment. All such units will be fully equipped with appliances, equipments, medicines etc.

Beneficiary Oriented Programme

1.4.4.34. Under the beneficiary oriented programme, it is envisaged to provide about 4700 milch animals to the scheduled caste people and 40,000 milch animals to the scheduled tribe people during the Seventh Plan so as to enable them to cross the poverty line by earning supplementary income through the sale of milk.

1.4.4.35. Moreover, assistance will be provided to the small and marginal farmers for rearing of 10713 cross bred heifers.

1.4.4.36. It is envisaged to provide short term training in Animal Husbandry to 3000 adivasi cattle owners during the Seventh Plan period.

1.4.4.37. For cattle Development Programme, a total outlay of Rs. 543.85 lakhs is provided for the Seventh Plan.

Poultry Development

1.4.4.38. As per livestock census of 1982, poultry population of the State is 35.72 lakhs and out of this 9.03 lakhs are exotic birds.

1.4.4.39. Poultry keeping with its capacity to offer quick returns has a great significance in agricultural production programmes aiming at providing subsidiary income to the rural population. Poultry production programme has gained momentum in the State.

1.4.4.40. Ten poultry training centres established during the Fifth Plan for providing 15 days training in poultry farm management practices were continued during the Sixth Plan and are proposed for strengthening during the Seventh Five Year Plan by providing.

--farmer's hostels at places where such facilities do not exist.

—audio visual aids.

—mobility for taking trainees for field visits etc. and for providing peripetalic training on the sight it self 12000 participants will be provided training during the Seventh Plan.

1.4.4.41. Coordinated poultry breeding programme was taken up at Regional Poultry Breeding Farm. Ahmedabad (Makaraba) for evolving highlaying strains of chicks. Results obtained are encouraging and M & V cross chicks have been released to the participants. The demand for these chicks is increasing year by year. In addition to the above there are four chick multiplication units for producing chicks of H. H. 260, BH 78, RIR and broilers.

1.4.4.42. Poultry farmers are always in need of chicks for the purpose of replacement from last week of January to 30th April, every year. If they got the chicks during the above period, they will get better price for their products. At present, there is supply of about 2.5 lakh layer chicks and 0.80 lakh broiler chicks. It is envisaged to supply about 5.00 lakhs layer chicks and 1.5 lakhs broiler chicks per year during the Seventh Plan by strengthening the existing multiplication units viz. layer chicks multiplication farms, broiler chicks multiplication farms and R.I.R. chicks multiplication farms. Projected demand of chicks during the Seventh Five Year Plan would be :

Year	Layer chicks		Broiler chick	
1985—86	22.44	lakhs	4.40	lakhs
1986—87	24.68	„	6.60	„
1987—88	27.40	„	8.80	„
1988—89	29.86	„	11.00	„
1989—90	32.84	„	13.20	„

1.4.4.43. Future growth of poultry largely depends upon the availability of balanced poultry food at reasonable price, as the cost of feed alone accounts for about 70 to 75 per cent of the recurring cost. Balanced poultry feed is a must in the intensive management system. Present requirement of poultry feed is about 50000 Mts. per year. Govt. poultry feed compounding units produce about 10,000 M. T./ year and the remaining is met from the cooperatives and private units. During the Plan period, it is envisaged to produce about 20000 Mts. per year at the Govt. units.

1.4.4.44. To carry out proximate analysis and analysis of aminoacids, minerals and to know the aflatoxin level of raw materials and compounded feed, it is necessary to equip the present poultry nutrition with all modern equipment, It is proposed to expand this laboratory during the Seventh Five Year Plan.

1.4.4.45. It is proposed to establish intensive poultry development block for Rajkot district and 8 poultry service centres for providing inputs to poultry farmers.

1.4.4.46. Existing assets created under poultry production programme are proposed for strengthening & they will be utilised for the purpose of supply of reared chicks etc.

1.4.4.47. Ecological conditions in Southern Gujarat favour the duck farming. It is proposed to establish one unit at Vyara (Surat).

Beneficiary Oriented Programme.

1.4.4.48. Under the special livestock production programme, poultry production programme for assisting the SF/MF/AL is taken up and it is proposed to continue it during the Seventh Plan. With a target to cover 20700 tribals, 600 scheduled castes and 4000 beneficiary from other weaker sections of the Society.

1.4.4.49. Duck rearing is found feasible in South Gujarat and therefore it is proposed to assist establishment of 160 duck units of 100 ducks each during the Seventh Plan.

1.4.4.50. For the poultry development programme, an outlay of Rs. 187.20 lakhs is provided for the Seventh Plan.

Sheep Development

1.4.4.51. As per the census of 1982, sheep population of the State is 23.57 lakhs which is mostly concentrated in the arid and semi-arid zone of North Gujarat, Saurashtra and Kachchh. 35000 sheep breeders entirely depend upon sheep rearing. The average flock size is 56 with an average income of about Rs. 3000/- per year.

1.4.4.52. Increase in land under agriculture and developing pasture land have necessitated migration to long distances in and outside the State. Income from sheep is constituted of meat i.e. sale of ram lambs 60--70 percent, manure 25-30 percent and rest from wool i.e. 5 to 10 percent. Average wool production is 1.00 kg sheep. With the objective of increasing the income of the sheep breeders, it is proposed to take up selective breeding and cross breeding in the districts according to the facilities and ram power available.

1.4.4.53. It is proposed to establish one more sheep breeding farm for Patanwadi breed in the Joriya region of Gujarat. By selective breeding about 400 rams will be made available annually for distribution in the area.

1.4.4.54. It is also envisaged to introduce new bloodlines of Patanwadi for giving better size, when the rams are located in the pockets for breeding.

1.4.4.55. July-August and February-March are the breeding seasons for sheep. Artificial insemination is adopted in controlled conditions with success. Exotic inheritance of Merino of 25 percent to 37 1/2 percent is found to be suitable under the field conditions. In order to encourage pure Patanwadi breeding 5000 Patanwadi-F-1 cross bred rams will be registered and distributed to the beneficiaries for upgrading their flock during the Seventh Five Year Plan.

1.4.4.56. About 70 per cent of sheep are migratory and they need medication, drenching and protection against contagious and infectious diseases. Absence of such facilities results in reduction in vitality, wool and mutton yield & increase in mortality. It is proposed to establish two service centres to benefit about 16000 sheep breeders. As a result of such facilities at migratory centres, mortality amongst migratory flock will be reduced considerably. In addition to this there will be better conversion ratio with increased wool and mutton yield.

Beneficiary oriented programme.

1.4.4.57. The programme of establishment of sheep units under the special livestock production programme is proposed to be continued and establishment of 5000 sheep units is proposed to be assisted during the Seventh Plan.

1.4.4.58. It is proposed to provide assistance to establish 100 pig units under the special livestock production programme during the Seventh Plan.

1.4.4.59. Goats are maintained by landless labourers and marginal farmers. Goat breeds of the State are Kachchhi, Mehsani, Zalawadi, Gohilwadi and Surti. To increase the milk yield in the goats, it is proposed to provide good quality ducks. Under beneficiary oriented programme, it is envisaged to provide goat units of 10 goat +1 duck. For supporting this programme, it is envisaged to establish one goat breeding farm in tribal area of Surat district. Every year about 100 ducks will be supplied to beneficiaries for breeding purpose.

1.4.4.60. For the programme of Sheep and wool development an outlay of Rs. 73.35 lakhs is provided for the Seventh Plan.

Other Livestock Development

1.4.4.61. Equines and camels are mainly used by Army, Border Security Force and Mounted Police Force. There is one horse breeding farm at Junagadh for Kathi breed with six station sub-centres for breeding purpose at Paliad and Gadhada (Bhavnagar), Limbdi (Surendranagar), Gondal (Rajkot), Nageshwari and Babra (Amreli).

1.4.4.62. Kathi breed is one of the best breeds which has to be preserved and developed. It is proposed to establish one new horse breeding farm with twenty stations/subcentres during the Seventh Plan. As per the recommendation of sub working group appointed by Govt. of India introduction of Arab bloodline in Kathi breed is also proposed.

1.4.4.63. Camels are mainly used in arid zones and border areas of Gujarat and Rajasthan. There is one camel breeding farm at Dhori (Kachchh Dist.). Govt. of India's working group has recommended one camel breeding farm in Gujarat for Jesalmeri breed at suitable location under the centrally sponsored scheme and it is proposed to establish one camel breeding farm for Jesalmeri breed during Seventh Plan.

1.4.4.64. For providing proper knowledge regarding the animal husbandry practices through film shows in the rural area, two exhibition units are functioning in Ahmedabad and Vadodara regions. It is envisaged to establish one additional unit at Rajkot for the Saurashtra region during the Seventh Plan.

Marketing

1.4.4.65. Several schemes have been taken up in the State for the production of livestock and poultry products. Assistance is provided for creating assets like milch animals, sheep units and poultry units to the families below the poverty line for bringing them above the poverty line. With the rise in cost of livestock food, the margin of profit is going down day by day. Unless the remunerative price is assured to the livestock owners, it will be difficult for them to keep the assets created under different beneficiary oriented programmes in operation. For providing remunerative income, the factors to be taken into consideration are :

—Cost of every livestock product requires to be ascertained periodically.

—when the price goes below the cost of production, support price operations are necessary to distress sales of the assets.

—Organised marketing through the primary secondary organisations alligned with the district unions and State apex bodies.

1.4.4.66 While doing so, it is necessary to keep in view the interest of the producers without affecting the consumer's interest. Keeping the above aims and objectives in view it is envisaged to organise marketing through the cooperative societies, district unions and State level apex bodies like the Gujarat Milk Marketing Federation Ltd.

1.4.4.67 In case of poultry, the given balanced feed is converted into an egg for further consumption. As per 1982 livestock census, poultry population (provisional) is to the tune of 35.72 lakhs and majority of the poultry units are located in rural area of the State. Under the beneficiary oriented programme, poultry units are given to the families below the poverty line to increase their income. This will only be possible if they get remunerative price for their produce. With a view to provide remunerative price it is planned to strengthen the existing cooperative societies and establish new cooperative societies for timely inputs service and marketing. Gujarat State Poultry Farmer's Cooperative Federation Ltd., was established during 1978-79 to link up all the societies for marketing and input services. It is envisaged to assist the societies by giving share capital.

1.4.4.68 For providing stability to the poultry units during the lean season, action was initiated in the Sixth Plan by giving Rs. 7.00 lakhs to the federation to provide support price to poultry farmers. It is proposed to continue the same during the Seventh Five Year Plan.

1.4.4.69 Joria region of Gujarat is known for its sheep husbandry which supports the Bharwads in this area. Patanwadi and Marwadi are the two main breeds kept by them for their livelihood. For the improvement of wool quality cross breeding programme with the exotic semen of Russian/Australian Marino and Rambullot have been taken up with the initial teething troubles, the cross bred progeny has started acclimatising with the local conditions. Wool produced by the cross bred sheep is of finer quality but when they sell this wool, there is practically no difference in the price they realise from the wool from local breed. It is also an age old practice that the local shepherds have to depend upon the wool merchants from Panipat and other places. They, have to sell their wool at a lower price and purchase the sun yarn at a higher price resulting in increased cost of production of wool products. As such, their products are not competitive in the market. This is adversely affecting the sheep and wool development programmes in the State. To put this rural based industry on sound footing, it is envisaged to strengthen the cooperative organisations and to organise new cooperatives according to requirement.

1.4.4.70 Organised market yards need revitalization. Animals are generally purchased through middlemen who extract the lions share of profit without undertaking any great risk in the rural areas. There is, thus, great need for providing more number of well-organised market yards for the sale of live animals in the rural as well as urban areas for assuring remunerative price to the livestock owners. A proper marketing system is required to be developed. The market-yards should have facilities for feeding, watering and resting of animals for a few days. It is proposed to assist 25 cattle market yards during the Seventh Plan period.

1.4.4.71 For this group, a total outlay of Rs. 68.45 lakhs is provided for the Seventh Plan.

Feed and Fodder Development

1.4.4.72. Fodder development programme in Gujarat aims at increasing production and conservation of fodder with the ultimate aim of increasing livestock products and thereby uplifting the economic status of the livestock owners.

1.4.4.73. Jowar and Lucern are the main fodder crops in the State. Area under jowar increased from 26 thousand hectares in 1966-67 to 62 thousand hectares

in 1979-80. Similarly, the area under lucern increased from 146 thousand hectares in 1966-67 to 226 thousand hectares in 1979-80. However, the pace is too slow to meet even the minimum demand. To enhance the fodder production and conservation activities in the State, it is proposed to provide incentives to popularise chaff cutters, silage making and high yielding and nutritious fodder varieties. Incentives are proposed to be given for fodder seed production on the panchayat seed farms, on the farms of the Government Corporations and of the farmers. In addition, incentive is proposed for development of village pastures under irrigation and dry land conditions.

1.4.4.74. Fodder seed production is the vital part of the fodder development programme. There is an acute shortage of the fodder seed in the State. Three fodder seed production farms, each of 20 hectares will be established during the Seventh Plan period. Fodder seed produced on these farms will further be utilised for further seed production throughout the State. Production of about 250 M. T. of fodder seed is estimated during the Seventh Plan.

1.4.4.75. It is proposed to establish 28 fodder production farms, each of 10 hectares towards developing village pastures. Permanent pasture will be acquired on lease for 10 to 15 years from the gram panchayats and would be developed with irrigation. Green fodder produced on these farms is sold to the livestock owners at a reasonable rate. The scheme has proved to be a boon to the landless labourers and farmers as the farm helps them in supplying green fodder to their animals throughout the year.

1.4.4.76. For this feed and fodder development programme, an outlay of Rs. 57.50 lakhs is provided for the Seventh Plan.

STATEMENT

Schemewise Outlays for the Seventh Five Year Plan 1985-90

(Rs. in lakhs.)

Sr. No. 1	No. and Name of the Schemes. 2	Total 3
I. DIRECTION AND ADMINISTRATION		
1.	ANH--1 Expansion of the Directorate of Animal Husbandry.	80.00
	Total-I.	80.00
II. VETERINARY EDUCATION AND TRAINING.		
2.	ANH--2 Development of Departmental Personnel (Training).	5.75
	Total-II.	5.75
III. VETERINARY SERVICES AND ANIMAL HEALTH.		
3.	ANH--3. Improvement of Veterinary aid.	419.70
4.	ANH--4. Disease control programme.	271.95
	Total-III.	691.65
IV. INVESTIGATION AND STATISTICS.		
5.	ANH--5 Strengthening of Statistical wing.	17.25
	Total-IV.	17.25
V. CATTLE DEVELOPMENT.		
6.	ANH--6 Cross breeding programme.	185.00
7.	ANH--7 Intensive Cattle Development Programme.	234.60
8.	ANH--8 Cattle breeding farms	37.40
9.	ANH--9 Sub-sidy to Cattle Breeding Institutions and Gaushalas.	37.40
10.	ANH--10. Supply of milch animals	24.15
11.	ANH-11. Assistance to small farmers for rearing of crossbred heifers.	25.30
	Total-V.	543.85

STATEMENT II(a)--*Contd.*

1	2	3
VI. POULTRY DEVELOPMENT.		
12.	ANH-12. Co-ordinated poultry breeding Programme.	21.12
13.	ANH-13. Intensive Poultry Development Projects.	32.08
14.	ANH-14. Beneficiaries oriented Programme.	134.00
	Total--VI.	187.20
VII. SHEEP DEVELOPMENT.		
15.	ANH-15. Intensive sheep Development Programme.	48.18
16.	ANH-16. Establishment of sheep breeding farm.	25.17
	Total-VII.	73.35
VIII. OTHER LIVESTOCK DEVELOPMENT.		
17.	ANH-17. Establishment of Exhibition Unit.	11.50
18.	ANH-18. Establishment of horse breeding farm	8.65
19.	ANH-19. Establishment of camel breeding farm.	5.75
20.	ANH-20. Marketing of Livestock and Livestock products.	42.55
	Total-VIII.	68.45
IX. FEEDS AND FODDER DEVELOPMENT.		
21.	ANH-21. Fodder Development Programme.	57.50
	Total-IX.	57.50
	Total (I to IX)	1725.00
	Nucleus Budget.	95.00
	Grand total	1820.00

1.5. DAIRY DEVELOPMENT

1.5.1. Introduction

1.5.1.1. The State Government has been providing support and encouragement to dairy development through the cooperative sector. The co-operative movement in this sector starting with AMUL Dairy in Kheda district has spread to the districts of Mahesana, Sabarkantha, Banaskantha, Vadodara and Surat. However, other districts have lagged behind in the matter of setting up facilities necessary for processing and marketing of milk and milk products. The gap between undeveloped and developing districts would have widened but for State's intervention through the Gujarat Dairy Development Corporation set up in 1973. Milk is collected through numerous village level dairy co-operative societies and processed and marketed centrally at a dairy plant at the district level. The milk producers participate through elected office bearers at society and union level leading up an apex level federation. The consumers also get hygeinic pasteurized good quality milk at reasonable prices. Milch animals get care and treatment through the veterinary doctors and animal husbandry staff employed by the co-operatives. The feeding and breeding practices have improved with the introduction of scientific methods.

1.5.2. Review of Progress

1.5.2.1. At the end of 1984-85, there were 7653 milk producer's co-operative societies with a membership of 10.16 lakh milk producers supplying milk to the dairies/chilling centres and cooling units. There were 5 milk product factories and 13 fluid milk plants in 1984-85 with a total installed capacity of 27.50 lakh litres a day and milk actually handled at the end of the year was, on an average, 21.00 lakh litres a day. There were ten cattle feed plants with a total installed capacity of 1450 tonnes per day.

1.5.2.2. Targets and achievements during the Sixth Plan period 1980-85 are —

Item	Unit	Sixth Plan Target	Achievement at the end of Sixth Plan
Fluid Milk Plants	No.	13	13
Milk Product Factories	No.	5	5
Cattle Feed Factories	No.	10	10
Dairy Co-operative Unions	No.	18	18
Dairy Co-operative Societies	No.	7158	7653
Members of Dairy Co-operative Societies	No. in lakh	8.00	10.16
Installed Capacity of Dairies	Lakh lit/day	27.00	27.50
Milk Handled	Lakh lit/day	20.00	21.00
Installed Capacity of Cattle Feed Factories	M.T./day	1400	1450

Operation Flood Programme—I

1.5.2.3. The Government of India with the assistance of the World Food Programme of the United Nations launched "Milk Marketing and Dairy Development Scheme" known as "Operation Flood Programme". The project report was prepared by the National Dairy Development Board, Anand and approved by the Government of India. This project was started in July, 1970, in six districts viz., Kheda, Mahesana, Banaskantha, Sabarkantha, Vadodara and Ahmedabad for the installation/expansion of feeder dairies and chilling centres. Dairy projects of Mahesana and Kheda were expanded from 3.5 to 5 lakh litres/day and from 5 to 7 lakh litres/day respectively and 2 new dairies at Palanpur and Himatnagar were established to handle 1.5 lakh litres/day each. In addition to this, cattle feed plants at Palanpur and Himatnagar were installed and cattle feed plants at Kheda and Mahesana were expanded. Technical inputs, artificial insemination and grass land development facilities were also provided to the members of societies in these districts. An amount of Rs. 18.14 crores was made available to the above district co-operative milk producers unions by the end of 1979-80. The programme was completed in March, 1981.

Operation Flood Programme-II

1.5.3. Objectives and Strategy of Development

1.5.3.1. The objectives of the Dairy Development Programme in the Seventh Plan are

- to ensure economic upliftment of small and marginal farmers and landless labourers by encouraging them to take up dairying as a means of increasing their supplementary income.
- to increase milk production by providing technical inputs like artificial insemination, feeds and fodder, veterinary aid, cross breeding etc.
- to promote cattle rearing and cow milk production by the "Two axis formula" adopted for pricing cow milk which treats the value of (Solid-not-fat) as equal to 3/4 of the value of the fat.
- to instal dairy plants taking into consideration milkshed areas instead of adopting revenue boundaries as the basis,
- to attain economic viability at all dairy plants.

1.5.4. Programme for the Seventh Plan 1985-90

1.5.4.1. An outlay of Rs. 182 lakhs provided for the Seventh Plan as under :—

		(Rs. in lakhs)
Minor Heads		Outlay for
1		1985—90
		2
Direction and Administration		38
Dairy Developmen		144
	Total	182

1.5.4.2. The activities under this sub-sector are undertaken through the institutional frame work of co-operatives, the Gujarat Dairy Development Corporation and Operation Flood Programme. The State Plan outlay is intended to serve as a catalyst to achieve the objectives and strategy of the development programme.

1.5.4.3. The installed capacities of the dairies will be raised from 27.50 lakh litres/day to 30 lakh litres/day during the Seventh Plan. The through put (Chandling capacity) of milk is estimated to go up from 21 lakh litres a day to 25 lakh litres/day by the end of Seventh Plan.

1.5.4.4. This programme initiated on 2nd October, 1979, covers 16 districts (except Amreli, Jamnagar and Dangs) in the State in the two clusters—Cluster-I comprising of the districts of Banaskantha, Sabarkantha, Kheda, Mahesana, Panchmahals, Vadodara, Surat, Bharuch, and Valsad. This project is being implemented by the Gujarat Co-operative Milk Marketing Federation. Cluster-II includes the districts of Kachchh, Bhavnagar, Surendranagar, Junagadh, Rajkot, Ahmedabad and Gandhinagar. This Cluster-II project is being implemented by the Gujarat Dairy Development Corporation, Gandhinagar. This programme is estimated to cost Rs. 57.19 crores comprising Rs. 41.56 crores for Cluster-I and Rs. 15.63 Crores for cluster-II. At the end of the Seventh Five Year Plan with the joint efforts of Operation Flood Programme-II and the State, the installed capacity of the dairies will be increased to 30 lakh litres/day and handling of milk per day will be increased to 25 lakh litres/day. This milk will be collected from about 12000 primary co-operative societies consisting of 15 lakh milk producers.

State Commitment to Operation Flood Programme-II

1.5.4.5. The Operation Flood Programme-II does not provide for electricity, water, land development etc. In order to supplement the main programme, the State is committed to provide these facilities as per approved pattern of Operation Flood Programme. An outlay of Rs. 10 lakhs is provided for Seventh Plan.

Milk Enhancement Programme in Non-operational Flood Programme area

1.5.4.6. The three districts of Amreli, Jamnagar and Dangs not covered under Operation Flood Programme-II are lagging behind in all aspects of milk production and processing in comparison to the other districts. With a view to bringing these three districts at par with the other districts, it is necessary to cover these districts for milk enhancement programme under the State Plan on the pattern of Operation Flood Programme.

1.5.4.7. It is proposed to take up the schemes like artificial insemination, cross breeding, grass land development, veterinary aid etc. for the milk enhancement programme of the dairies on the pattern of Operation Flood Programme-II, an outlay of Rs. 10 lakhs is provided for the Seventh Plan. This will be supplemented by institutional finance through GDDC and District Co-operative Milk Unions.

Development of Milch Animals Programme

1.5.4.8. The aim of this scheme is to increase the income of the beneficiaries to enable them to cross the poverty line. The beneficiaries are so poor that they are unable to provide enough feed and fodder to their animals and as a result of this, milk production goes down and the animals become a liability.

1.5.4.9. For the success of this programme, it is considered necessary that the animals are supplied with enough feed and fodder and balanced cattle feed, so that

milk production and health of the animals are maintained and the beneficiaries get regular income from the surplus milk from which they can repay the loan portion.

1.5.4.10. It is estimated that about 3 kgs. of balanced cattle feed per animal per day will be required *i. e.* 1000 kg. (1 Mt.) cattle feed per animal per annum. The cost of one tonne cattle feed is estimated at Rs. 1200 per animal. 75% subsidy *i. e.* Rs. 900 is given per animal. During the Seventh Plan, 1000 animals are proposed to be subsidised for which an amount of Rs. 9 lakhs has been provided.

Preservation of Milch Animals

1.5.4.11. With a view to preserve the cattle wealth of the State, the Government have from time to time promulgated order *viz.* the "Gujarat Cattle (Export Control) Order, 1961", "Gujarat Cattle (Import Control) Order 1981", "Gujarat Milch and Drought Cattle (Control and Movement) Order 1983" and regulated the movement of cattle under the Bombay Essential Commodities and Cattle Control Act, 1958.

1.5.4.12. There is a huge demand of cows, buffaloes and bullocks in other States particularly Maharashtra, Rajasthan etc. The animals are allowed for export outside the State under existing rules. To control unauthorised export of animals by road additional check posts on the border districts are required to be established; for which an outlay of Rs. 33 lakhs has been provided for the Seventh Plan.

Gujarat Dairy Development Corporation

1.5.4.13. The Gujarat Dairy Development Corporation was set up in 1973. The Corporation plays a pivotal role in the development of dairy industry in Gujarat. It deals with the following activities.

- To set up dairies/chilling centres/cattle feed factories in milk shed area.
- To administer the dairies that are not economically viable.
- To encourage organisation of primary milk societies on co-operative basis.
- To hand over dairies set up or developed by the corporation to district cooperative milk unions when they are economically viable.
- To look after collection and marketing of milk economically.
- To evolve working arrangements with the existing milk unions within the Gujarat Milk Grid.

1.5.4.14. The dairies/chilling centres under Gujarat Dairy Development Corporation are being established/expanded under Operation Flood Programme-II. Moreover, assistance is also given for the technical input programme under OFP-II. The scheme for which assistance is not available under OFP-II and the district which are not covered under OFP-II (Jamnagar, Amreli and Dangs) are taken care of under State Plan.

Banni Development

1.5.4.15. Banni area in Kachhh district with a grass land of 1311 sq. kilometres is denuded of grass lands over two thirds of its area and needs development with existing species of grasses. In selected areas, there are prospects of increasing the production of grass by 5 to 6 times.

1.5.4.16. The Indian Council of Agricultural Research, at the instance of the State Government, constituted a Committee of Experts in 1978 to examine the problem and suggest suitable measures for unproductive land in Kachchh district. The Committee has recommended —

—Soil survey.

—Reclamation procedure

—Soil and water management and rain water harvesting technique.

—Introduction of good varieties of grass.

1.5.4.17. The soil sample survey done by the Saurashtra University forms the basis of present development works. Reclamation procedure will be adopted in development plots.

1.5.4.18. A water tank constructed near Dhordo in 1980–81 is being utilised for the study of rain water harvesting. It is observed that infiltration rate diminishes from second year onwards. The water can be utilised as life saving irrigation to pasture crops for seed production.

1.5.4.19. Banni area has got *Dichanthum Annulatum* and *Sporobolus* species of grass which survive in both good and saline soils. These are also nutritious for the animals. At present 2250 hectares are covered under these grasses. It is proposed to increase this area to 17500 hectares. In addition, it is proposed to store 1800 tonnes of grass for use in scarcity and natural calamities.

1.5.4.20. Banni area has Kankrej breed of Banni type Murrah buffaloes. This area provides excellent males to use as bullock power for agricultural purpose. It is proposed to supply food ration to selected bull calves worth Rs. 50 per month for 18 months from the age of 6 months. 700 Cow and buffalo bull calves are proposed to be covered during the Seventh Plan for which an outlay of Rs. 15 lakhs has been provided.

Financial assistance to District Milk Producers Unions for Milk Rooms, Spear Head Teams/Transport Subsidy.

1.5.4.21. The scheme envisages provision of finance to district co-operative milk producers unions for construction of milk rooms of society level where milk will be collected from the members and milk samples tested and milk dispatched to the Dairy. Cattle feed, cans etc. will be stored at milk rooms. Similarly the unions will be financed for spear head team for enhancement programme. It is also proposed to finance the unions by way of transport subsidy so that more societies are formed and more milk is collected. For this scheme an outlay of Rs. 25 lakhs is provided for the Seventh plan.

Rabari Bharwad Rehabilitation

1.5.4.22. For economic upliftment of Rabari-Bharwad community, animal husbandry-cum-agriculture cooperative societies were established in 1955 in Ex-Bombay State. The scheme was restricted to Ahmedabad, Kheda and Mahesana districts. The scheme was implemented in the whole of Gujarat after formation of Gujarat State. The scheme was implemented by the Co-operative Department under "Rural Development Programme" and under the scheme, individual beneficiaries and co-operatives were assisted. The scheme was discontinued in 1982. On review, however, it was observed that under the scheme only immovable animal

breeders got the benefits and the movable breeders did not get any advantage. The scheme was therefore taken up during 1984-85. The aims and objects of the scheme are to provide :—

- loan for purchase of land
- loan/subsidy for improvement of land.
- subsidy for purchase of seeds, manure and agriculture implements.
- subsidy for purchase of bull
- subsidy for maintenance of bull
- loans/subsidy for construction of godown.

An outlay of Rs. 15 lakhs is provided for this scheme in the Seventh Plan period.

1.5.5. Co-operation Department's Programme.

1.5.5.1. Dairy co-operatives in the State have proved as an important organisation in providing supplementary income to the agricultural farmers and landless labourers. It is necessary to provide guidance and supervision for the efficient running of the societies. A provision of Rs. 5 lakhs is made in the Seventh Plan to strengthen the administrative machinery in the Co-operation Department at taluka, district and State level. An amount of Rs. 50 lakhs is provided towards subsidy to milk unions and feeder societies during the Seventh Plan.

1.5.5.2. It is proposed to organise 3000 new primary milk cooperative societies of which 1000 would be in tribal areas during the Seventh Plan. It is proposed to subsidize purchase of equipments at the rate of Rs. 2000 each to 1500 primary cooperative milk societies. In tribal areas, it is proposed to increase the marginal subsidy from Rs. 100 to Rs. 250 p.m. for the period of 2 years to be paid to 300 primary cooperative societies. It is proposed to establish 8 new chilling centres during the Seventh Plan.

STATEMENT

Schemewise outlays for the Seventh Five Year Plan—1985—90.

(Rs. in lakhs)

Sr. No.	No. and name of the scheme	Outlay
1	2	3
Agriculture and Rural Development Department Programmes.		
<i>I. Direction and Administration.</i>		
1.	DMS-1. Preservation of milch animals.	33.00
	Sub-Total-I	33.00
<i>II. Dairy Development.</i>		
2.	DMS-2 Banni Development Scheme.	15.00
3.	DMS-3 State Committent to O.F.P-II	10.00
4.	DMS-4 Milk Enhancement Programme in Non O.F.P. Area.	10.00
5.	DMS-5 Financial assistance to Co-op. Milk Producer's Union for Spear Head Team, Milkroom, Transport Subsidy.	25.00
6.	DMS-6 Maintenance of milch animals.	9.00
7.	DMS-7 Rabari Bharwad Rehabilitation	15.00
8.	Nucleus Budget	10.00
	Sub-Total II	94.00
	Total : A & R DD's Programme	127.00
Co-operation Deptt's Programme		
<i>III. Direction and Administration.</i>		
9.	DMS-8 Strengthening the administration.	5.00
<i>Dairy Development.</i>		
10.	DMS-9 Financial assistance to Dairy Co-op. Milk Unions and feeder societies-Subsidy.	50.00
	Total—Co-operation Department's Programme	55.00
	GRAND TOTAL : Dairy Development.	182.00

1.6 FISHERIES

1.6.1. Introduction

1.6.1.1. With nearly one fourth- of the country's coastline and a lakh square kilometers of the continental shelf and having 39 intermediate and 168 marine fish landing centres, Gujarat is well placed for development of marine fisheries in the country. Besides marine fisheries and marine resources , the State has considerable potential for coastal aquaculture and mariculture in over 3 lakh hectares of the coastal based interspersed with a large number of creeks and low lying mud-flats.

1.6.1.2. The State has tremendous potential for inland fisheries also as five major rivers viz. the Narmada, the Mahi, the Tapi, the Sabarmati and the Banas provide a rich base. Besides, there are 1035 perennial village tanks covering about 9500 hectares available for inland fishing culture. In addition 315 small irrigation tanks covering about 19,000 hectares and 22 reservoirs covering about 1.4 lakh hectares of water also offer considerable scope for inland fishing in the State.

1.6.1.3. As per provisional live stock census of 1982 the number of people engaged in fisheries is estimated at 2.25 lakhs. Of these 80,204 are engaged principally in fisheries. The following table indicates the growth of employment in various activities connected with fisheries :—

Particulars	Census		
	1972	1977	1982
Population of fishermen ..	1,11,281	1,64,027	2,25,440
Active fishermen engaged in various fisheries activities	30,983	48,859	80,204
Actual fishing for fish seed collection ..	19,488	28,632	53,544
Fish marketing, net making/mending, processing, preservation and miscellaneous jobs connected with fishing industry	11,495	20,227	26,660

1.6.1.4. Fishermen are active in various fishery branches as under :—

Particulars	Census		
	1972	1977	1982
Engaged in :—			
Marine fisheries	26025	37943	57787
Fresh water	02542	07975	15388
Estuarine fisheries	02416	02941	07029
Total ..	30983	48859	80204

1.6.1.5. Most of the people belonging to such communities as Kharwas, Waghers, Miyanas, Machhis, Tandels, Mangela, Mitana, Dubla, Nayakas, Kolis and Sidis are engaged in and mainly dependent on marine fisheries in coastal areas, whereas Machhis, Dhimars, Kewats, Wagheries, Bhills, Kolis, Padhars, Kotwalias, Adivasis and living around reservoirs are engaged in inland fisheries. The communities are poor illiterate and socio-economically backward.

1.6.1.6. Our marine waters surrounding Saurashtra peninsula comprise the richest fishing grounds consisting of the most important commercial varieties of fish such as Pomfrets, Hilasa, Goldara, Perches, Sharks, Cat fish, Bombay ducks, Tuna,, besides, the coastal waters around in crustaceans namely Prawns, Shrimps, Crabs and Lobsters. It has been established that the waters of Saurashtra offer rich fishing grounds on the west coast of India. Besides, optimum conditions prevail in the Gulf of Kachchh for the growth and sustenance of real pearl Oysters, Edible - Oysters, Window Pane Oysters, Chunks and other small fish and turtles and sea weeds of commercial importance.

1.6.1.7. The full extent of our marine, fresh water and brackish water resources so richly available in Gujarat have not been fully assessed so far. These are far from being fully exploited or developed. The fishing in the sea is generally confined to the coastal belt upto 25 fathoms and in certain areas upto 40 fathoms.

1.6.1.8. The fish based ancillary industries like ice factory, cold storage, fish meal plant, poultry feed, animal feed, dry fish industries based on fishing generate larger employment opportunities. Fishing can be regarded as a significant generator of incomes and employment as it stimulates the growth of number of subsidiary industries such as boat building, manufacture of fishing gears, synthetic twine,, winches, gurdles, outer-boards, sinkers, floats, marine diesel engines, refrigerated cabinets, insulated boxes, establishment of workshops/service stations for installation and repairs of marine diesel engines/out-board motors, fabrication of spare parts, construction of carrier vessels and trucks. It is difficult to work out a multiplier effect of given quantum of investment in the fisheries development.

Backward Area Development

1.6.1.9. A large number of coastal villages with a population of 55 lakhs covering an area of about 3,000 sq. Kms. are facing salinity problems. Fisheries sector can contribute to improve the conditions of such areas. With the limited resources available in other sectors like agriculture and allied sectors, it is an uphill task to accommodate the increasing population in those sectors particularly when the agricultural labourers have increased from 18.87 lakhs (1971) to 25.11 lakhs (1981) in Gujarat. Development of fisheries offers many gainful opportunities for these persons.

1.6.1.10. A large proportion of the tribal population living around major reservoirs are engaged in fishing. By providing training fish seed production, nursery, rearing farming and fish capture, their skills can be upgraded for better employment and earning opportunities.

1.6.2. Review of Progress

1.6.2.1. The State contributes around 15% to the total fish production of the country. The State has come quite close to reasonable utilisation of the potential of demersal marine fisheries upto the depth range of 40 fathoms.

1.6.2.2. The exploratory survey of the Government of India (1974) assessed the Standing stock of the demersal fish to be 2,23,504 tonnes as under :

Depth range fathoms	Area (km. 2)	Standing stock (tonnes)
0 to 25	44,723	1,79,499
25 to 40	11,277	44,005
Total	56,000	2,23,504

1.6.2.3. There has been no appreciable increase in fish production since 1975-76 because of the limits on the exploitation of available demersal resources. Therefore, the need to exploit other resources both deep sea and palegic is emphasised in our approach to the Seventh Five Year Plan.

1.6.2.4. Canoes with-glass reinforced plastic fibres have been built in Gujarat for fishing operations along the Saurashtra coast. An alternate methodology for economic fishing operations on the Gujarat coast with the help of the agencies of the Government of India is also being experimented. Gujarat waters are now known for the availability of 'Squids' and 'Cuttle fish' both of which are-export commodities/species. Suitable development of craft and gear for exploiting the 'Squids' and 'Cuttle fish' and other columnar species of commercial importance would surely open up new economic opportunities in this area and would also contribute significantly in increasing the level of fish production.

1.6.2.5. There has been appreciable progress in the export of fish and fish products. As compared to 207 tonnes of export valuded at only Rs. 40 lakhs in 1971-72, the exports in 1984-85 had crossed over 6204 tonnes valued at over Rs. 24.23 crores.

1.6.2.6. A large scale modernisation of fishing harbours of Veraval and Mangrol under the Gujarat Fisheries Project aidedy the World bank has been undertaken and the development of fishing harbour at Porbandar under a centrally sponsored scheme is in progress.

1.6.2.7. Landing and berthing facilities at Kolak, Ummersadi and Jakhau have been created and work at Umergaon is in progress. Creation of landing and berthing facilities at Vansiborsi and Kosamba in Valsad district, Jafraabad and Madhwad in Amreli district and Mandvi in Kachchh district at a total estimated cost of about Rs. 115 lakhs has been approved by the Government of India. Proposal for adding such facilities at Surajbari in Kachchh district is also under consideration of the Government of India.

1.6.2.8. The Institute of Coastal Engineering, Bangalore has already completed feasibility report on the important project for development of shivajpur in Jamnagar district as a fishing harbour at an estimated cost around Rs. 3068 lakhs. The clearance from the Government of India is awaited. The master plan for landing and berthing facilities in 27 fishing centres was proposed, out of which, remaining centres will be taken up during 1985-90 for development.

1.6.2.9 Experiments in coastal aquaculture at Sartanpur in Bhavnagar district are being carried out. The work at Mundra in Kachchh district is in progress. Technological gap experienced in farm engineering and hatchery management, for exploitation of the coastal aquaculture resources is required to be bridged in order to achieve steady development of brackish water/mariculture fish farming. Development of coastal aquaculture assumes great importance—

- to develop coastal area which are backward
- for ecological development of coastal zone.
- to meet the growing export demand for Shrimps.
- to augment near constant production and capture fisheries; and
- to support capture fisheries by seeding of given areas.

1.6.2.10 The state has also made significant progress in production of fish seeds from local resources. The systematic efforts are going on for augmentation of fish seed production by construction of fish seed farms, dry bundhs and hatchery units. Besides, Fish Farmers Development Agencies at Surat, Godhra and Valsad have been established in the State.

1.6.2.11. Activities of M/s Gujarat Fisheries Central Co-operative Association Limited are strengthened to accelerate development and marketing activities.

1.6.2.12. An apex co-operative society, namely Gujarat Fisheries Central Co-operative Association (G.F.C.C.A.) was established in 1956 and the Gujarat Agro Marine Products Corporation was established in 1971 as a subsidiary company of the Gujarat Agro Industries Corporation. The G.F.C.C.A. has played a pivotal role in the amelioration of the socio-economic conditions of the fishermen by catering to their needs at reasonable rates and by helping the fishermen in marketing their catch at better prices.

1.6.2.13 In addition, departmental service stations for installation and repairs of engines in fishing vessels have been set up at Veraval, Mangrol, Porbandar, Madhwad, Valsad, Umbergaon, Okha, Jafrabad, Jamnagar, and Salaya.

1.6.2.14. Boat building yards established through Government aid are also run by co-operatives and corporation at Veraval, Porbandar, Mangrol, Umbergaon, Valsad and Jafrabad.

1.6.2.15. Freezing plants, ice factory and cold storage of Gujarat Fisheries Central Co-operative Association have been set up at Bombay through Government aid. Besides, the G.F.C.C.A. has also established a complex comprising of freezing plant, frozen storage, ice factory and cold storage at Veraval through bank loans.

1.6.2.16 Departmental training centres at Veraval, Porbandar and Valsad impart training in the marine fisheries. Similarly, two training centres at Ukai and Vansda impart training in inland fisheries to tribals and weaker sections. Two more centres were added at Kadana and Khedbrahma by 1983.

1.6.2.17. Vocational training centres at Seven places have imparted training to 1074 fishermen, adivasis/weaker section youths on various aspects of fisheries during the course of four years (1980-1984) of the Sixth Plan period. This includes 507 trainees on marine fisheries and 567 trainees in inland fisheries which includes 461 trainees in tribal areas. During 1984-85, it was targetted to impart vocational training to 194 youths in marine fisheries and 320 youths in inland fisheries in tribal area. Thus 1588 youths would have been trained in the skill for modern fisheries during the Sixth Plan.

1.6.2.18. The fishermen have taken advantage of the programmes as impact studies reveal:—

—87% of the fishermen beneficiary families avail themselves of both subsidy and loan and 13% took advantage of either subsidy or loan.

- The average assistance to the beneficiary families was Rs. 16,500/-.
- The income of beneficiary families availing themselves of the schemes of the Department have increased by 2.75 times.
- The income of beneficiary families who took advantage of the scheme of fisheries requisites have more than double.
- The fishermen have started using better and more durable nets.

1.6.3. Strategy of Development

1.6.3.1. The crux of the policy for the development of fisheries is—

- to increase fish production.
- to strengthen the infrastructural facilities at minor fishing ports as well as fishing villages and development of fishing harbours;
- to significantly improve the fish distribution channel for ensuring fair returns to the fishermen;
- to provide nutrients of desirable qualities of reasonable prices to the consumers;
 - to enhance income to the small fishermen, adivasis and weaker sections involving them in fishing industry and thereby to improve socio-economic conditions of poor classes of society and to create employment potential in this sector; and
- to improve the life of those poor people involved in fisheries through various welfare measures.

1.6.3.2. For rapid development of fishing industry, basically three sub-systems are involved which are to be developed in a most systematic manner. These are the production sub-system, the processing sub-system and the integrated market sub-system. Several supporting facilities such as production of the necessary equipments, credit facilities, research, extension and training are required for the effective functioning of all these sub-systems.

The details of these sub-systems are as under :—

Production Sub-System

1.6.3.3. The production sub-system covering fishing craft, gear and human enterprise needs for the purpose of augmenting fish production support. The strategy adopted in this connection is—

- support for evolving new crafts,
- support for evolving fishing gear for diversified fishing techniques.
- extension and training support for transfer of technology and upgradation of skills,
- support for adoption of culture technique with wider coverage of areas.

1.6.3.4. Fish being highly perishable requires elaborate infrastructure facilities for minimising wastage from the harvest stage to the stage of consumption. The strategy envisages :—

- to provide support for equipment for handling fish on board the fishing crafts,
- to create off shore facilities with emphasis on hygienic handling and quick movement,
- to provide harbour facilities, landing auction, and marketing facilities, processing and preservation facilities, etc.,
- set up necessary organisations for post harvest handling.

Market Sub-System

1.6.3.5. The major thrust in the Plan formulation is aimed at this very vital sub-system which is responsible for the upliftment of the socio-economic conditions of the fishermen. Better value realisation to the producer fishermen is aimed at through the following steps :—

- strengthening fisheries cooperatives and involving them in marketing;
- support for preservation and processing and quick movement of fish and products;
- support for diversification of fish products and conversion of low quality fish into value added products,
- support for wider distribution net-work.
- credit facilities to the fishermen especially for tiding over the off-season, and to meet expansion in getting ready boat and gear at the commencement of the season.

1.6.3.6. On commencement of the Seventh Five Year Plan it is proposed to revise the subsidy/incentive pattern for mechanisation/fishing craft and gear. Subsidy and incentive would be used for the development of certain type of fishing and for the development of backward areas where fishery resources are abundant. Subsidy for mechanisation of trawlers shall be replaced for subsidy/incentive for modified boats/gears for diversified fishing etc.

1.6.3.7. For inland fisheries, investigation unit for site selection will be established. Subsidy is also proposed for various new ventures viz., brackish water, fish farming, marketing activities, preservation by modern methods, new technology programmes by attributing increase and improvement of quality fish etc.

1.6.3.8. A significant emphasis, on development of markets, building up marketing infrastructure and the strategy of market information by Fisheries Development Corporation and the cooperatives for better deal to the fishermen and the consumers. Besides, coastal aquaculture and mariculture, an attempt in environmental fish farming and social fisheries has been made. These proposals consist of development of game fisheries and ornamental fishes pre-pollution studies and the studies of the effect of industries on the estuarine fishing. Efforts shall also be made for Conservation and preservation of fishery resources besides the development and augmentation of fishery resources in the estuarine.

1.6.4. Programmes proposed for the Seventh Plan—1985-90

1.6.4.1. An outlay of Rs. 2426 lakhs for the Seventh Plan has been provided, the broad break-up of which is as under :—

		(Rs. in lakhs)
Name of the programmes	1	Seventh Five Year Plan (1985-90) 2
Direction and Administration		6
Extension		32
Fish farms		362
Hatchery units		40
Research		45
Education and Training		124
Inland Fisheries		220
Fishing harbours and landing facilities		689
Deep sea fisheries		10
Processing, preservation and marketing		105
Mechanisation and improvement of fishing crafts		328
Others		465
	Total	2426

1.6.4.2. The State has reached the fish production level around 2.23 lakh tonnes by the end of 1979-80. The fish production recorded at the end of Sixth Plan 1980-85 is 3.18 lakhs tonnes including 0.25 lakhs tonnes inland fishing.

1.6.4.3. Though the trend of production of fish indicates that the concentration of efforts is for small fish and table varieties of fin fish, low quality of fish is also being harvested which has already market as dried fish and in fish meal industry. The fish production statistics for the past four years indicate that a more or less stable level of production. This calls for expansion in areas exploited and diversified fishing efforts to cover resources hitherto not being fully exploited for augmenting fish production. The target is to achieve the fish production potential of 3.85 lakh tonnes by the end of Seventh Plan.

Direction and Administration

1.6.4.4. Along with expansion of the developmental activities and increase in size and sphere of the Plan with various programmes, the supervisory and administrative organisational structure to look after the compilation and various problems will have to be strengthened from time to time. The following two sub-schemes are proposed.

STRENGTHENING OF ADMINISTRATION AND SUPERVISORY SET-UP.

This comprises of,—

- Plan formulation, plan compilation and monitoring.
- Accounts, reconciliation, budget, budget performance, auditing and inspection.
- Establishment, service matters, administration, enquiries, public relations, public complaints.
- Decentralisation by creating more regional and district and sub-offices upto village/fishing centre level.
- Upgrading the inland fishery development at Ukai.
- Enforcement staff required to enforce the Gujarat Fisheries Act.

1.6.4.5. The Gujarat Fisheries Bill, now under active consideration of the State Government, is likely to come into force during the Seventh Plan period. The Bill provides for effective conservation of the flora and fauna in both the marine and inland sectors and aims to regulate the fisheries on rational lines. An enforcement unit will have to be created at the Commissionerate for enforcing this Act; in addition necessary supervisory staff will also be needed at the district level. An outlay of Rs. 6 lakhs is provided in the Seventh Plan for these activities.

Extension

1.6.4.6. Extension support is very essential to acquaint actual users for whose benefit the schemes are formulated with details of various schemes of development. The beneficiaries are to be persuaded to adopt new technique developed in gears, boat designs, marketing, fish handling and processing etc. They are also to be helped to form co-operatives in various fields of fisheries activities to take full advantage of the various schemes implemented through co-operatives. The ultimate aim of all the developmental schemes is to increase fish production and there by augmenting the supply of proteinous fish food and improve the socio-economic conditions of the people engaged in fishing industry. It is, therefore, proposed to undertake the following activities to give extension support during the Seventh Plan Period with an outlay of Rs. 32 lakhs.

Strengthening of Publicity and Extension

1.6.4.7. To contact the general masses the means of personal contact through television, broadcasting, pamphlets, films, audiovisual aid etc. is to be adopted by the field staff to transmit the result conducted from various resources, projects and experiments to fish farmers in the interior remote places and all along the coastal villages. The field staff will be required to participate in village fairs, organise marine melas where newly developed techniques, equipments like fish finders, fuel saving devices, charts, models of gears, boat, navigational charts, diversified fishing methods, fish products etc. will be displayed to motivate the fishermen and the people engaged in fishing industry to adopt them to improve the means of their livelihood.

Development of Aquaculture Fish Culture and Display

1.6.4.8. To inculcate the habit of aquarium keeping by the people at their houses, place of business etc. required publicity will be made. Apart from this, the weaker sections will be imparted training for aquarium fish, breeding ornamental fish and arrange aquarium in an attractive manner so as to earn extra income. Besides the

State will establish and maintain good permanent attractive fish aquarium at big cities and towns to encourage people to have aquarium at their places.

Progressive Fishermen's Tour

1.6.4.9. To teach the fishermen through methods of "learning by seeing" would prove more effective to induce them to new methodology and means of diversified fishing etc. It is, therefore, proposed to arrange tours of progressive fishermen to important successful projects of fisheries in the State and outside the State.

Demonstration of new design of craft and gear in marine/inland fisheries

1.6.4.10. It is proposed to involve fishermen to adopt new designs of crafts and gears. For this, subsidy may be given to co-operatives/G. F. C. C. A./G. F. D. C. to actively participate in preparing/introducing and exhibiting new methods, designs of crafts and gears and to demonstrate the use of the same among the fishermen.

It is proposed to establish demonstration ponds where fishermen, adivasis and weaker sections will be given actual demonstration in new techniques of fish farming to raise fish production.

Fish farms and Hatchery Units

1.6.4.11. To boost up fish seed production in the potential areas, it is proposed to establish more fish seed production/rearing farms, hatchery units and dry bundhs and to expand the existing ones. Fish seed is the main component of input in inland fish culture programme and in coastal aquaculture programme. So far, the State was procuring major portion of fish seeds (Catle, Rohu and Mrigal) from West Bengal and rearing them in our nursery to fingerling stage and to stock them reasonably in village ponds and reservoir so as to ultimately raise the fresh water fish production. The State has become successful in developing induced breeding technique to procure fish seeds (spawns) from the State local resources during Sixth Plan period and scale-down the procurement of the same gradually from the West Bengal.

1.6.4.12. At present, the State has 22 fish seed production/rearing farms. This includes 14 farms for which work is in progress. During the course of the Seventh Plan, it is proposed to add fish seed production/rearing farms for inland pisculture covering about 12 hectares. Two hatchery units are coming up in Kheda and Surat. In the direction of coastal aquaculture programme, it is proposed to select suitable sites for establishing more brackish water/coastal aquaculture fish seed production/rearing farms alongwith hatchery units. During Sixth Plan period, the State has conducted a survey of the Gujarat coastal belt and located 132 sites of possible location for launching coastal aquaculture programme. Out of these, sites at Mundra (Kachchh), Sartanpur (Bhavnagar) and Dandi-Matwad (South Gujarat) have been selected. The farm construction at Sartanpur is now completed and the work at Mundra is in progress. The work at Dandi-Matwad is also being taken up. This is a new activity for which enough experties is still not available in the country. The coastal aquaculture/brackish water fish farming is to be developed through introduction of modern technology of fish culture in the coastal areas. Coastal aquaculture/brackish water fish farming/mariculture holds good prospects of assured supply of selected varieties of fish seed and enable the fish farmers to harvest two or three crops during the year. Presently, the Central Institute for Coastal Aquaculture Engineering, Bangalore is assisting the State in the selection of suitable sites and preparation of plans and estimates. The Government of India has assured 50% central assistance on capital cost of CAC farm. The Government of India have urged rapid development of this area firstly because of the potential for increasing fish production, the prospects of decline at the present rate of exploitation of

shrimp grounds and the need to conserve the costly fuel otherwise needed in conventional fisheries.

1.6.4.13 It is also proposed to give incentive in the form of subsidy to private fish farmers/cooperatives/corporation and companies for participation in site selection and establishment of fish seed production/rearing farms in both the areas of inland pisculture and coastal aquaculture/mariculture brackish water fish farming and in production/ procurement and rearing of fish seeds in local resources of the State. It is proposed to establish 4 new fish seed production/rearing farms by the State for inland pisculture and in addition to encourage the private sector/cooperatives/corporation/companies to come forward and establish about 9 fish seed production/rearing farms during Seventh Plan. Two, 10 hectares hatchery units are also coming up in Kheda and Surat District as a centrally sponsored programmes. It is also proposed to establish two Coastal Aquaculture Farms during the Seventh Plan.

1.6.4.14 To attract the industrial houses in this venture and to tap this new and productive area, it is proposed to make adequate provision to provide and extend reasonable incentives to them for taking up the projects.

1.6.4.15 The outlay of Rs. 362 lakhs is provided for establishing fish farms during Seventh Five Year Plan.

Research.

1.6.4.16 In the years past, the emphasis was more on the exploitation of the resources of the capture fisheries. The important studies taken up (from 1977 onwards) were work on pearl culture, oyster culture, fresh fish utilization and prawn hatchery. The survey and investigation of marine resources through departmental survey vessels was done. Research and development on some of these topics would be carried forward during the Seventh Plan period. Investigation studies in inland fisheries are now proposed to be taken up during the Seventh Plan period.

1.6.4.17 On marine fisheries side, studies will be undertaken on gear fuel economy, fish preservation on board without use of ice, fresh preservation in remote villages without ice, fresh fish transport, resource development (biological), Bombay duck fishery prawns fishery of Surbari project area, pearl culture, molluscan culture, prawn hatchery, pollution effects pre-pollution survey to preserve rich fishing grounds, Bacteriological effects, pomfret fishery, fish value etc, would be made during the Seventh Plan.

1.6.4.18 On inland fisheries side, studies will be continued on production of Hilsa seeds, fish preservation at landing site without use of ice, indigenous piscicide, cheap fish food, hybridisation of carps, transportation of fish, *Macrobrachium rosenburgii* etc.

Education and Training

1.6.4.19. This programme includes—

Training of departmental personnel, which in addition to departmental staff training centre, aims at deputing staff and officers to various institutions of the State, Centre/and abroad in the short/long term courses in specialised disciplines to upgrade the skills of technical expertise from grass root level functionaries and to higher level executives. Besides HSC passed students would be deputed for B. F. S C. course at University of Aquaculture Science and depute science graduate for post-graduate studies in C. I. F. S. Bombay.

—Vocational training to young fishermen (boys and girls) on various aspects of fisheries, fish processing gear technology, engine driver and allied courses

on marine fisheries aims at improving their skills for better fish production through diversified fishing methods, fishing gear technology and to process and preserve fish in better hygenic condition for better realisation of price of their catch/products.

—Vocational training to develop skills of weaker section and tribals in the inland fisheries area on modern practices of fish culture and fish capture and its handling is also proposed so as to enable them to get gainful sustained income through fisheries.

1.6.4.20. It is proposed to depute 360 departmental personnel/officers for various courses during Seventh Plan period. It is also projected to impart training to 1235 young fishermen and women and 200 adivasis in marine fisheries. In addition 1800 young men from weaker sections in tribal area will be trained in inland fisheries culture and capture practices. Besides, 500 fish farmers and 400 workmen from weaker sections would be imparted training of short term course of a month in fish handling, processing, preservation net mending etc., on inland fisheries side in tribal area.

Inland Fisheries

1.6.4.21. While Gujarat offers vast potential scope for development of inland fisheries, the programme in this field is slow due to local natural conditions as also partially due to local causes. The programme here mainly covers exploitation of inland fishery since establishment of fish farmers and hatcheries which are main pre-requisite component for inland fisheries are now separated to have close watch on its progress distinctly as per guidelines of the Planning Commission. The inland based fisheries programme comprises of—

	(Rs. in lakhs)
Pond culture	90
Reservoir fisheries	20
Riverine/estuarine fisheries	35
Social game fisheries	5
ICAR sponsored programme (25% State/75% ICAR)	3
Fish Farmers Development Agencies	52
Infrastructure facilities	15
TOTAL	220

1.6.4.22. All these programmes aim to utilise the large number of village ponds profitably for intensive fish culture systematically to bring all the reservoirs under formation and scientific management so as to reach reservoir fish production of 40 kg/hectares, to promote tourist attraction in the State by introducing angling or game fishing at Saputara, Ahmedabad and Junagadh, to study the field applications of various research findings under different agro-climatic conditions as per guidelines of the Indian Council of Agriculture Research (I. C. A. R.), all India Co-ordinate Research Project Sponsored by I. C. A. R., to increase fish production from the natural fisheries of rivers and estuarines, strengthen the existing fish farmer development agencies at Valsad, Surat and Godhra and to establish new ones under centrally sponsored programmes (50-50% sharing basis), to involve tribals/

weaker sections in exploitation of capture fisheries from developed reservoirs, increase in infrastructure facilities in rural and tribal area like petrol boat, demonstration boat, cold storage etc., and grant assistance for inputs and implements required for exploitation of fisheries developed and organise undeveloped resources, development of Sardar Sarovar etc., so as to increase inland fish production from the present level of around 25,000 tonnes to the level of 35,000 tonnes per annum by the end of the Seventh Plan. This will generate significant and sustained self-employment of weaker sections and adivasis trained involved in inland fisheries.

Fishing Harbours and Land Facilities

1.6.4.23. Gujarat fishermen have 11774 fishing vessels/boats which includes 4245 mechanised fishing vessels/boats (as on 31st March 1984) for which landing and berthing facilities are pre-requisite. Recognising inadequate facilities and looking to the trend of development of fishing boats etc., lot of endeavours has been done right from the First Plan period. As a result, World Bank aided project for development of fishing harbours at Veraval and Mangrol was taken up. It is nearing completion and would be commissioned during 1984-85. Porbandar is also being developed as fishing harbour under centrally sponsored programme (50 : 50% sharing basis). Ten projects to provide landing and berthing facilities at Vansi borsi and Kosamba (Valsad District), Mandvi (Kachchh District), Jafrabad, Rajpara, Madhwad, and Surajbari Mul-Dwarka (Amreli District) and Salaya-Sachana (Jamnagar District) are in progress as sanctioned by Government of India during the Sixth Plan period are likely to be completed earlier part of the Seventh Plan. Initial facilities at Kolak, Umarsadi and Umbergaon is already provided water supply facilities to all these fishing centres are projected in Seventh Plan. Shivrajpur project at an estimated cost of Rs. 30.68 crores is under consideration of the Government of India for development of fishing harbour in Jamnagar District as per project report prepared by C. I. C. E. F. Bangalore. In addition, it is proposed to provide initial landing and berthing facilities at Navabandar, Navibandar (Kotda) and Miyani (Junagadh), Bhimpore/Daman (Surat), Kankara, Dholai, Onjal (Surat) and Shiyalbet, Dhora and Chhanchi (Amreli) during Seventh Plan period after proper investigation.

1.6.4.24. It is proposed to provide navigational aids to 16 centres and approach roads to 9 centres. Besides, it is proposed to provide dredging facilities for fishing centres at Jafrabad, Porbandar, Kolak, Madhwad and Mangrol during the Seventh Plan. Post harvest technology is to be created and subsidy for ice plant cold storage etc., to entrepreneurs is proposed to achieve this aim and object.

Deep Sea Fisheries

1.6.4.25. Off-shore waters of the North-West region of India has resources to sustain deep sea fishing as evident from activities of foreign deep sea fishing vessels operating in this area. Results of the charter deep sea vessels of Gujarat Fisheries Development Corporation are encouraging. Catch statistics indicate that the exploitation of the resources in the inshore water of this area upto 40 fathoms, especially the demersal fisheries resources has attained near peak level. Therefore, it is now necessary to encourage deep sea fishing on a larger scale. Appropriate strategy for the proper utilisation of the resources and development of these deep sea resources, is therefore, proposed. The scheme aims at needed financial support to entrepreneur in this capital intensive programme. The priority of assistance to cover margin money to the beneficiaries is proposed as under :

- Government undertaking.
- Fishermen's co-operatives of Gujarat.
- Entrepreneurs having fish processing establishments in Gujarat.
- Individuals/firms based in Gujarat.

Processing, Pre-Servation and Marketing

1.6.4.26. The programme comprises of sub-schemes namely :—

(i) Scheme for improving marketing support with outlay of Rs. 20 lakhs. The programme aims at,

- commercialisation of products developed from low valued and unconventional species of fish in domestic market.
- development of transit and terminal markets.
- cold chain for marketing of fish and fish products.
- research and extension support for technology for product development from low valued species.

—**Regulation of Primary market** : These programmes are to achieve the main objective to get higher remuneration for fish to the fishermen producers and more equitable distribution of income to the fishermen by reducing their exploitation by the middlemen and to obtain greater availability of more fish to the consumers through product developed from low valued species.

—Scheme to support fishermen's co-operatives and Gujarat Fisheries Development Corporation for intervention in fish marketing. It is proposed to improve financial assistance to the State level organisations and fishermen's co-operatives and enable them to play an important role in marketing of fish and fish products both within and outside the State and minimise the hold of private merchants on the fish trade.

—Schemes for co-operative marketing for inland fisheries in non-tribal area and in tribal areas.

1.6.4.27. It is proposed to involve inland fisheries co-operatives duly affiliated with the Apex Co-operative Organisation/Federation for marketing of fish and fish products by the fish farmers. It is, therefore, proposed to support such societies financially and with technology of fish trade and thereby to enable them to minimise exploitation by private fish merchants.

Mechanisation and Improvement of Fishing Crafts

1.6.4.28. This programme is a core of sub-sector especially in the development of marine fisheries. It comprises of —

- Mechanisation of fishing crafts (Rs. 115 lakhs)
- Introduction of fibre glass boats (Rs. 70 lakhs)
- Subsidy on non-mechanised boats (Rs. 15 lakhs)
- Subsidy for improved gears (Rs. 7 lakhs)
- Establishment of service stations (Rs. 7 lakhs)
- Establishment of fuel stations (Rs. 4 lakhs)
- Financial assistance towards the insurance of boats (Rs. 55 lakhs)

—Inshore fisheries extension and diversification (Rs. 40 lakhs).

—Grant-in-aid to Gujarat Fisheries Development Corporation (G. F. D. C.) and Gujarat Fisheries Central Co-operative Association Ltd. (G F C C A) (Rs. 15 lakhs)

1.6.4.29. The present mechanisation of fishing craft programme is well tried and repetitative of character. It has proved production oriented one generating significant sustained self-employment of fishermen. Against the proposed outlay of Rs. 115 lakhs, institutional finance of Rs. 525 lakhs is expected during the Seventh Plan period. It is proposed to introduce 505 inboard marine diesel engines and 1000 outboard motors to mechanise/motorise fishing boats.

1.6.4.30. Introduction of fibre glass mechanised motorised boats is a new success and it is proposed to introduce 300 FRP-boats. This being new modern boat, element of subsidy of 50% for boats upto 7 metre and 25% of the boats above 7 metre is proposed. Besides, 15% of additional subsidy for backward area is proposed. Remaining portion of finance is expected through institutional financial resources. Against the proposed State Plan outlay of Rs. 70 lakhs, institutional finance to the tune of Rs. 165 lakhs is estimated to flow.

1.6.4.31. It is proposed to grant subsidy of Rs. 15 lakhs towards introduction of 300 non-mechanised boats during the course of Seventh Plan. Similarly, subsidy of Rs. 7 lakhs is proposed for introducing 25 lakh tonnes of nylon/monofilament requirement estimated for the Plan period.

1.6.4.32. To induce the fishermen to invariably insure their vessels, the scheme is evolved from 1984-85 in the State. 50% of the premium will be subsidised by the State. This will help the fishermen to recoup their loss sustained during the course of natural calamities like cyclone, heavy monsoon etc. which has become a phenomenal character of the Gujarat coast since last 3-4 years. Present service stations of the State at various places for repairs and installation of engines in the fishing vessels will continue. Apart from this, it is proposed to grant subsidy to unemployed engineers to set up service stations in remote places where fishing activities have considerably increased. 25% of subsidy is proposed on the cost of service station including building and machineries.

1.6.4.33. Mechanisation has been adopted even at remote places but fuel stations to cater the need of the mechanised fishing vessels on the spots are not available there. It is, therefore, proposed to provide incentive to co-operative corporation and/or private entrepreneurs in order of preference to set up fuel stations at different remote fishing centres. Preference will be given to unemployed engineer in case of private entrepreneurs. The thrust on introduction of trawlers so far has resulted in near peak level of exploitation of demersal resources. The marine fish production of the Gujarat State has reached a level around 3 lakh tonnes. It is, therefore, necessary to intensify exploitation of bottom resources and pelagic resources. Hence, the programme for inshore fisheries, extension and diversification is to be implemented to evolve the new crafts and gears and equipments, testing and demonstration for diversification of fishing methods etc. Financial assistance in the form of subsidy at 25% is proposed to be given to the fishermen for aquisition of such newly designed crafts, gears and equipments for diversified fishing methods. Besides, additional subsidy of 15% is proposed for backward area over the normal rate of 25% proposed for other rural/urban area.

1.6.4.34. Grant-in-aid is proposed to be given to Gujarat Fisheries Central Co-operative Association and Gujarat Fisheries Development Corporation for evolving new types of improved crafts, gears and equipments and improving their

efficiency and for taking up R & D works on this aspect and popularise it amongst the fishermen for diversified fishing.

Others

1.6.4.35. This programme covers —

- Strengthening of statistical set up for fisheries statistics (Rs. 5 lakhs).
- Strengthening of fisheries co-operatives (Rs. 8 lakhs).
- Strengthening of fisheries co-operatives/National Co-operative Development Corporation (N. C. D. C.) added programmes (Rs. 182 lakhs).
- Accident insurance of fishermen-members of co-operatives (centrally sponsored) (Rs. 10 lakhs).
- Subsidy for constructions of houses for fishermen (Rs. 70 lakhs).
- Saving-cum-incentive scheme for upliftment of fishermen (Rs. 90 lakhs).
- Construction of office building and quarters (Rs. 90 lakhs).
- National Welfare Fund Programme (Rs. 10 lakhs).

1.6.4.36. The increasing challenges of the developmental programmes on fisheries emphasises the need to reform and revitalise the statistical set up. It has to affectively carry out (a) fish production survey, (b) collection of market statistics, (c) prices/export of fish statistics (d) fishing equipment (boats/nets etc.), manpower engaged and socio-economic conditions of fishermen (e) census and other survey studies and (f) biological research statistics etc. In the field of inland fisheries the new methodology is being evolved by the Central Government to be adopted. In the field of marine fisheries, a tested methodology as adopted and evolved by the Central Marine Fisheries Research Institute (C. M. F. R. I.) is being fruitfully-utilised by the State Government for estimating marine fish landings. The statistical organisation is to be strengthened to cope with the increased work in different fields of fisheries development.

1.6.4.37. Presently there are 212 co-operatives, including 51 in tribal area, of these 74 are reported to be profit making, 56 in no profit-no loss position and 70 in loss as on 30-6-1983 and 12 have been formed recently. It is proposed to grant State share capital to 83 co-operatives and N. C. D. C. share capital to 55 co-operatives besides managerial subsidy to the requisite societies. Appropriate guidance is also given for proper working of the co-operatives. All these components aim at strengthening the co-operative movement of the fishermen so as to enable them to raise their socio-economic conditions and not to play in the hands of middlemen exploiters.

1.6.4.38. In the direction of welfare measures for fishermen, a part from training, grant of sub-sidy for boats, nets, engines and other implements, the Gujarat State has adopted the accident insurance of the fishermen member of the co-operatives. 50 % premium is borne by the State and remaining 50 % is shared by the Government of India. 14,473 members of 130 co-operatives and 15,177 members of 150 cooperatives of fishermen have been insured in the year 1983-84 and 1984-85- respectively. The State has also launched programme to subsidise construction of houses for fishermen from 1983-84. An amount of Rs. 38 lakhs have been provided in two years 1983-84 and 1984-85 in the first instance. An outlay of Rs. 90 lakhs is proposed for Seventh Plan for subsidising about 2600 houses to the houseless fishermen.

1.6.4.39. Under the scheme namely saving-cum-incentive introduced from 1984-85, the fishermen operating gill netters and dol-netters has to deposit Rs. 250/- p. m. and Rs. 100/- p. m. respectively for 9 months from September, regularly in special saving account in the Nationalised banks. Equal amount alongwith total deposits will be returned to the beneficiary during off-season for fishing by the State Government at matching contribution. The matching contribution would be in the forms of interest free loan and subsidy as off season financial support at the rate of 2 : 1 respectively. This aims at saving them from the clutches of the middlemen during off-season. This would inculcate the habit of saving among the fishermen which would thrive them and improve their socio-economic conditions.

1.6.4.40. The expansion of developmental activities would entail new office building and training centre complex with hostel buildings and residential staff quarters. Most of these locations are in remote places. Works for construction office building at 7 places and 215 units of staff quarters would remain as spill-over works in progress during the Seventh Plan, besides, 5 new office buildings and 405 new units of staff quarters are proposed to be constructed during Seventh Five Year Plan.

STATEMENT

Schemewise outlay for the Seventh Plan 1985-90

(Rs. in lakhs)

Sr. No.	No. and Name of the Schemes	Outlay
1	2	3
1. DIRECTION AND ADMINISTRATION		
1	FSH-1 Strengthening of administration and supervisory set up of Fisheries Department	3.00
2	FSH-2 Enforcement staff to enforce Gujarat Fisheries Act	3.00
Total		6.00
2. EXTENSION		
3	FSH-3 Strengthening of publicity and extension	6.00
4	FSH-4 Development of aquarium fish culture and display	18.00
5	FSH-5 Scheme for progressive fishermen's Tour	2.00
6	FSH-6 Demonstration of new Designs of craft and gear in marine inland Fisheries	3.00
7	FSH-7 Demonstration of ponds for inland fish culture	3.00
Total		32.00
3. FISH FARMS		
8	FSH-8 Fish seed production in Non-Tribal area	70.00
9	FSH-9 Fish seed production in tribal area	233.00
10	FSH-10 Development of brackish water/coastal aquaculture fish farm	50.00
11	FSH-11 Establishment of coastal aquaculture fish farm and hatchery units (Centrally Sponsored Scheme)	9.00
Total		362.00
4. HATCHERIES		
12	FSH-12 Establishment of two 10 hectares hatchery unit at Kheda and Surat Districts (Centrally Sponsored Scheme)	40.00
Total		40.00

1	2	3
	5. RESEARCH	
13	FSH-13 Research and Development programme of Marine fisheries	30.00
14	FSH-14 Applied research studies in inland fisheries	15.00
	Total	<u>45.00</u>
	6. EDUCATION AND TRAINING	
15	FSH-15 Training of departmental personnels	7.00
16	FSH-16 Training of fisher youths/weaker sections in non-Tribal area	57.00
17	FSH-17 Training of Adivasis in tribal area	60.00
	Total	<u>124.00</u>
	7. INLAND FISHERIES	
	<i>(a) In Non-Tribal Areas</i>	
18	FSH-18 Pond culture scheme	90.00
19	FSH-19 Reservoir fisheries development scheme	20.00
20	FSH-20 Scheme sponsored by ICAR (Centrally Sponsored Scheme)	3.00
21	FSH-21 Scheme sponsored by Fish Farmers Development Agencies (Centrally Sponsored Scheme)	52.00
22	FSH-22 Riverine fisheries and astaurine fisheries	5.00
23	FSH-23 Game fisheries	5.00
	Total	<u>175.00</u>
	<i>(b) In Tribal Areas</i>	
24	FSH-24 Reservoir fisheries development	30.00
25	FSH-25 Scheme for infrastructure facilities	15.00
	Total	<u>45.00</u>
	Grand Total (A+B)	<u>220.00</u>

1	2	3
8. FISHING HARBOURS AND LANDING FACILITIES		
26	FSH-26 Development of fishery harbours (Centrally Sponsored Scheme)	509.00
27	FSH-27 Landing and Berthing facilities at ports (Centrally Sponsored Scheme)	70.00
28	FSH-28 Water supply at various fishery centres (Centrally Sponsored Scheme)	20.00
29	FSH-29 Scheme to provide other infrastructure facilities at various fishing centres (Centrally Sponsored Scheme)	50.00
30	FSH-30 Providing dredging facilities at minor ports (Centrally Sponsored Scheme)	40.00
	Total	<u>689.00</u>
9. DEEP SEA FISHERIES		
31	FSH-31 Deep sea fishing	10.00
	Total	<u>10.00</u>
10. PROCESSING, PRESERVATION AND MARKETING		
32	FSH-32 Scheme for improving marketing support	20.00
33	FSH-33 Scheme to support fishermen's co.ops and G.F.D.C. Ltd. for intervention in fish marketing	75.00
34	FSH-34 Scheme for Coop. marketing for inland fisheries in Non-Tribal area	5.00
35	FSH-35 Scheme for coop. marketing for inland fisheries in tribal area	5.00
	Total	<u>105.00</u>
11. MECHANISATION AND IMPROVEMENT OF FISHING CRAFTS		
36	FSH-36 Mechanisation of fishing crafts	115.00
37	FSH-37 Introduction of fibre glass boats	70.00
38	FSH-38 Subsidy for non-mechanised boats	15.00
39	FSH-39 Subsidy for improved fishing gears	7.00
40	FSH-40 Establishment of service station	7.00

1	2	3
41	FSH-41 Establishment of fuel station	4.00
42	FSH-42 Financial assistance towards the insurance of boats	55.00
43	FSH-43 Scheme for inshore fisheries extension and diversification	40.00
44	FSH-44 Grant-in-aid to M/s. Gujarat Fisheries Development Corporation Ltd. and Gujarat Fisheries Central Co-operative Association Ltd.	15.00
	Total	<u>328.00</u>
12. OTHERS		
45	FSH-45 Strengthening of statistical set up for fisheries statistics	5.00
46	FSH-46 Strengthening of fisheries Coop. in non-tribal areas	8.00
47	FSH-47 Strengthening of fisheries Coop. through N.C.D.C. sponsored scheme	182.00
48	FSH-48 Accident insurance of fishermen members of Coop. Societies (Centrally Sponsored Scheme)	10.00
49	FSH-49 Scheme of subsidy for constructing houses for fishermen	70.00
50	FSH-50 Saving-cum-incentive scheme for upliftment of fishermen	90.00
51	FSH-51 Construction of buildings and quarters	70.00
52	FSH-52 Financial assistance to Guj.-Fisheries Development Corporation.	20.00
53	FSH-53 National Welfare Fund Programme	10.00
	Total	<u>465.00</u>
	GRAND TOTAL	<u>2426.00</u>

1.7 FORESTS

1.7.1. Introduction

1.7.1.1. Forests have provided the foundation for development of civilization through the ages. The very ecological stability of a region depends upon the quantum of forests and tree vegetation existing in that area.

1.7.1.2. Forests are needed for economic, social and psychological development of the tribals who constitute an integral but vital part of the forest environment. As much as 14% of the State's population of 3.4 crores (1981) is comprised of tribals a majority of whom live in or near about the forest areas. Gujarat has only about 10.05 percent of the State's geographical area of 1,95,984 sq.km. under forests (nearly half of it being degraded) in contrast to the national policy of having a minimum of 33 percent of land area under forests. As against the world average of 1.04 ha/capita and all India average of 0.11 ha/capita, Gujarat has only about 0.06 ha. of forests per capita.

1.7.1.3. Besides providing timber and fuelwood the forests yield a wide range of minor forest produce which are collected, processed and marketed by the Gujarat State Forest Development Corporation. The forestry sector through the Forest Department, and the GSFDC generates nearly 2.20 crores mandays of employment opportunities for tribals and landless workers. Most of the labour is generated during the agricultural off-season, very often at the door steps of adivasis. As compared to only one wildlife sanctuary in 1960 when Gujarat State was formed, there are now 4 national parks and 11 sanctuaries covering more than 20% of the State's forests area.

1.7.1.4. While in 1980-81, 3.22 crore seedlings were planted under afforestation and social forestry programmes, and 4.92 crores distributed, 9.79 crore seedlings have been planted under afforestation and social forestry and 18.75 crores distributed during 1984 rains. Thus there has been more than 351% increase in the tempo of planting seedlings in the State.

1.7.1.5. Gujarat can also take pride in having some of the rare wildlife species available in the world such as Asiatic Lion, Wild Ass, Great Indian Bustard etc. The first marine national park in the country has been set up off the coast of Jamnagar in 1981-82.

1.7.2. Objectives and Strategy

1.7.2.1. In view of the foregoing and in conformity with the policy of the State and needs of the people, the thrust of development will be towards efforts at reaching ecological balance in meeting the requirements of fuelwood and fodder of the rural population, employment generation, energy conservation, economic stability of the tribal population and development of wildlife. This will be achieved through :

- improving environment by protecting forests and undertaking massive afforestation in the degraded forests;
- undertaking a massive programme of social forestry to meet the fuelwood and fodder needs of the rural people and cattle respectively;
- providing employment to the rural population, with special attention to the weaker sections of the society in the rural and tribal area so as to give a permanent support to their economy through forestry programmes;

- consistent with the above, increase productivity of the forests, so as to march towards the goal of self sufficiency in meeting the economic, industrial and rural needs of the State in respect of forest products; and
- development of wildlife.

1.7.2.2. In consonance with these objectives the priorities are fixed as under :—

- conservation programmes;
- community forestry programmes;
- production programmes;
- tribal welfare programmes;
- wildlife development programmes.

1.7.2.3. The overall strategy for development of forestry sector in the State would be to increase tree growth wherever possible both inside and outside the forest areas. The core activity of the programme will therefore be the plantation schemes including conservation measures and protective and productive plantations.

1.7.2.4. Welfare activities for the tribals residing in the forest areas cannot be isolated from other forestry activities. By far most of the forestry activities are designed to increase production and improve the environment which concomitantly improve the socio-economic condition of the tribals. However, some specific schemes designed for tribals welfare would also be undertaken.

1.7.3. Review of Past Performance

1.7.3.1. The emphasis during the first four Five Year Plans have been on conservation and afforestation of assigned forest areas. It was during the Fifth Plan that the development programmes took into consideration the present and perspective demands of major and minor forest produce and extension of social forestry in areas outside the traditional forest. During the Sixth Five Year Plan, the concept of social/community forestry witnessed its full development as the measures initiated during the Fifth Plan started yielding results. Through the community forestry project large chunks of un-productive community-lands, strips, marginal and sub-marginal agricultural lands and other un-productive forest lands were afforested. While till the end of Fifth Plan the total afforestation was 2,57,500 hectares, during the Sixth Five Year Plan period 2,22,400 hectares were afforested. Farm forestry saw its peak during the last years of the Sixth Five Year Plan, farmers and other people planted as many as 18.75 crore seedlings in the year 1984-85 alone.

1.7.3.2. Gujarat can take pride in having one of the oldest wildlife preserve. The Gir Sanctuary, in the former princely State of Junagadh. However, it was restricted to Gir forest areas only. Development activities during the first three Five Year Plans were concentrated on road construction and fire protection. New wildlife preserves were identified during the Fourth Five Year Plan and constituted into sanctuaries and national parks. More funds were also allocated for developing these preserves. During the Sixth Five Year Plan period 5 new sanctuaries and 1 national park were added bringing the total number of sanctuaries to 11 and national parks to 4. Programme of educating children through nature education camps was given greater importance. Uptil now, 665 nature education camps have been conducted. Gujarat Environmental Education Research (GEER)

Foundation was established for research and education in the field of ecology and environment conservation.

1.7.3.3. Under the centrally sponsored programme, the following schemes were implemented during the Sixth Five Year Plan :—

- Soil conservation in catchment areas of river valley projects;
- Social forestry including rural fuelwood plantation.
- Eight schemes for development of wildlife.

Under NREP, RLEGP, DPAP, DDP etc., increasing funds were made available to the forestry sector for under-taking forest development activities, especially plantation activities during the Sixth Plan. An area of 32,000 hectares was afforested under these special programmes during the Sixth Five Year Plan.

1.7.3.4. Recognising the need to improve the economic status of the tribals residing in the forest areas some of the schemes specially designed are :

- Grain bank;
- Development of forest settlements;
- Establishment of wood workshop-cum-production-cum-carpenters' training centre at Waghai;
- Kotwalia welfare;
- Tagavi loans;
- Social security through forest plantation

1.7.4. Perspective of development

1.7.4.1. Until recently, agricultural demands had precedence over the needs of the forests. However during the Sixth Plan period there was a distinct change in the outlook in respect of the role of forests. This has manifested in the form of social awareness to preserve forests and also to increase tree vegetation wherever possible. By enacting the Forest Conservation Act, 1980, the Government of India has made it obligatory for the State Governments to obtain prior approval for deforesting any reserved forest area. The Government of India besides giving liberal financial assistance for social forestry programmes has made it obligatory for the States to spend minimum 10% of NREP funds on social forestry programmes.

1.7.4.2. It has been estimated that more than 20% of the presently cultivated agricultural lands are degraded and really not fit for agriculture. Emphasis will, therefore, have to be given to divert these lands for tree farming to increase their productivity and prevent further deterioration. An estimated 18750 hectares of such lands are proposed to be brought under tree cover through the World Bank assisted Community Forestry Project during the Seventh Plan period.

1.7.4.3. To reduce the extent of theft of forest produce, section 61 of the Indian Forest Act has been amended to empower forest officials to confiscate vehicles engaged in unauthorised removal of Government owned forest produce. Other measures such as incentive awards to subordinates for meritorious service, establishment of checking nakas, mobile squads, wireless network etc., will be strengthened during the Seventh Five Year Plan.

1.7.4.4. To maximise production of small timber and fuelwood within the shortest time possible, densification in planting intensity and inputs of fertilizer and water to ensure optimum utilization of scarce land resource have been proposed.

1.7.4.5. Besides continuing the development of existing national parks and sanctuaries, a few additional sanctuaries will be established and developed during the. Seventh Five Year Plan.

1.7.4.6. Individual and tribal beneficiary schemes would also receive increasing attention during the Seventh Five Year Plan. The 194 forest settlement villages would be provided with infrastructure facilities and loans and subsidies made available to the inhabitants for improving agriculture, animal husbandry, horticulture etc

1.7.5. Programmes for the Seventh Plan

1.7.5.1. An outlay of Rs. 129.64 crores is provided for the Seventh Plan-1985--90. The State plan outlay for the Seventh Plan is likely to be supplemented by about Rs. 599 lakhs for the centrally sponsored scheme of social forestry including rural fuelwood plantation, soil conservation in catchments of river valley projects and wild life schemes.

1.7.5.2. The details of outlays are as under:

(Rs. in lakhs)

Programme	Outlay for Seventh Plan- 1985-90
Direction and Administration	188.40
Research	35.00
Education and Training	144.20
Forest Conservation and Development	714.00
Plantation Schemes	1089.20
Farm Forestry	106.20
Communication and Buildings	161.55
Preservation of Wildlife	387.00
Extension	9848.65
Management of Zamindari	67.80
Others	222.00
Total ...	12964.00

1.7.5.3. Nearly 90% of the total outlay is provided for World Bank assisted community forestry project, centrally sponsored schemes, forest conservation and development programmes and plantation schemes.

1.7.5.4. Keeping in view the objectives and strategies enumerated above, the programmes to be undertaken during the Seventh Plan are outlined in the following paragraphs.

Direction and Administration Forest Protection

1.7.5.5. The demand for timber and firewood has increased rapidly due to increase in population and industrial development. This has led to increase in prices of timber and firewood. Anti-social elements have found the trade in illicit timber and firewood lucrative. It is, therefore, necessary to equip forest staff to face the exigencies and provide for regular combing of forests to keep control over illegal activities.

1.7.5.6. To keep check over the forest produce going out of forest, it is necessary that checking nakas be provided at exit points of the forests. It is proposed to provide 6 checkig nakas for the purpose. To provide support and enable the forest guards to meet difficult situations created by gang operators, this scheme also provides to arm forest subordinates posted in vulnerable areas with suitable weapons. For quick communication and to watch the movement of offenders, this scheme also provides for a network of wireless communication, 3 vehicles and 3 mobile squads to quickly reach on tip offs. Strengthening of the vigilance cell at head-quarters is proposed to co-ordinate and keep vigil over the protection programmes.

1.7.5.7 Forest fires have been another major cause of forest destruction. They do not only disfigure timber but also destroy the ground cover and humus and also the essential micro-organism in the soil. Destruction of ground cover and humus also accelerates soil erosion. It is, therefore, imperative that any accidental or intentional fire is immediately spotted, localised, brought under control and extinguished.

1.7.5.8 To minimise fire damage, the forest is proposed to be honey combed with fire lines to localise fires and reduce chances of accidental fires. Fire guards and watch towers are provided for quick reporting of fire incidents. Wireless network also come handy in quick reporting and sending help in fire fighting.

1.7.5.9 An outlay of Rs. 174.30 lakhs is provided for these schemes for the Seventh Five Year Plan period.

Planning and Evaluation

1.7.5.10. Expenditure on forestry sector during Seventh Five Year Plan period is estimated at Rs. 129 crores. Evaluation of on going schemes and planning for future needs proper monitoring and collection of statistical data. It is proposed to provide statistical cells at various levels and a planning, monitoring and evaluation cell at head-quarters. The scheme will cost Rs. 14.10 lakhs during the Seventh Plan period.

Research

Forest Research.

1.7.5.11 Continued research is an essential ingredient of progress. The yield of timber and firewood per unit area which is one of the lowest for our forests, can be stepped up by manipulating the composition of our forests through propagation of high yielding strains and hybridization of selected species. A regional forest resea-

rch institute has been set up in Gujarat during the Sixth Plan period but it is in infancy and needs to be strengthened. A botanical garden is established at Waghai (Dangs). The same shall be further developed to provide research facilities. Additional seed banks will also be established under the scheme to supply quality seeds for various plantation programmes. An outlay of Rs. 35 lakhs is provided for research programme during the Seventh Plan period.

Education and Training

1.7.5.12 Forestry is a technical subject requiring technically qualified personnel for its proper management and development. Central Government bears the responsibility for training officers. Till recent past, even Range Forest Officers were trained at training institutes run by Union Government. However, with increase in demand Central Government is unable to meet the requirement of various States and Gujarat has opened a Rangers Training Institute of its own with the consent of Government of India in 1979-80. Forestry Training Institute at Kakrapar imparts training to the direct recruits, Foresters, Forestry extension assistance, and also in service training to the Foresters and guards. Both these training institutes will have to be continued and would have to be better equipped. It will be necessary to train some of the officers at management and extension training institutes run by other organisations. An outlay of Rs. 144.10 lakhs is provided for the Seventh Plan period.

Forestry Conservation and Development.

Soil and Moisture Conservation

1.7.5.13 Destruction of forests, indiscriminate grazing, repeated fires are main causes of denudation of forests. It is estimated that almost half the State forest area needs to be rehabilitated immediately. Denudation has been such that prior to putting it to economic use under tree cover it should be treated with soil conservation measures and afforested to improve the top soil. The scheme proposes to take up intensive soil and moisture conservation measures followed by reforestation with small timber, fuelwood, fodder yielding tree species and grasses. During the Seventh Plan period, it is proposed to treat 5160 hectares at a cost of Rs. 435.7 lakhs.

Afforestation of Desert Border

1.7.5.14 The little and large runn of Kachchh which are vast saline wastes are sandwiched between Kachchh in the north and west, main land Gujarat in the east and Saurashtra in the south. The winds blowing from desert carry with them fine particles of silt heavily laden with salt. These particles are deposited in the adjoining agricultural lands thereby reducing the fertility of the lands and gradually rendering them uncultivable due to accumulation of salt in the soil. The scheme proposes to establish belts of trees on the border of the desert to reduce such effect. During the Seventh Plan, it is proposed to afforest 2430 hectares of desert border at the cost of Rs. 235.4 lakhs

Coastal Border Plantations

1.7.5.15 Gujarat has a coast line of over 1600 Kms. A strip of about 200 to 400 metres in width along the coastal line consists of loose shifting sand. Due to heavy wind action along the coastal belt, the sand gradually drifts inwards converting agricultural lands into sandy waste. The object of this scheme is to stabilise the sand and also to obtain returns in the form of fuelwood and small timber by raising plantations of suitable species like Casurina Equisetifolia and Prosopis juliflora. It is proposed to cover 260 hectares of coastal area at the cost of Rs. 42.9 lakhs during the Seventh Plan.

River Valley Projects (Fully Centrally Sponsored Scheme)

1.7.5.16 Siltation poses the greatest threat to the various irrigation reservoirs in the State. If soil erosion is allowed to continue in the catchment areas, the life span of dams may get reduced greatly. In order to check the rate of erosion, catchment areas of 3 major irrigation projects in the State are being treated suitably under the scheme. During the Seventh Plan period, it is proposed to treat 5,000 hectares of land at the cost of Rs. 275 lakhs under the Fully Centrally Sponsored Scheme.

Plantation Schemes.

Fuelwood and Small Timber Plantations

1.7.5.17 Demand for firewood and raw material for paper and other industries has been increasing rapidly both due to rapid increase in population and industrialisation. It is imperative to meet these needs especially that of firewood in the interest of protection of trees on forest land and village lands. This can be done by raising suitable fast growing fuelwood and timber species in areas adjoining habitation and in forest areas which are not suitable for raising valuable timber species. This scheme therefore aims at raising fast growing tree species to meet growing fuelwood and small timber demand in suitable forest areas at close spacing. It is proposed to cover an area of 5,000 hectares at a cost of Rs. 442.15 lakhs during the Seventh Plan.

Raising Teak, Khair and Bamboo Plantations.

1.7.5.18 The productivity and economic value of India's forests has been one of the lowest. It is necessary to progressively replace poor quality forest in potentially valuable forest land by valuable trees. This is possible by converting such forests into man made forest plantations of economically important species like teak, khair, bamboo etc. This scheme therefore proposes to cover the annually clear felled potential forest areas and raise plantations of teak, khair and bamboo in such areas. It is proposed to cover an area of 16,800 hectares at a cost of Rs. 452.5 lakhs during the Seventh Plan.

Irrigated Plantation.

1.7.5.19 Under rainfed condition, the average production of wood per hectare in Gujarat forests is between 2.5 to 3 tonnes per annum. However, with application of irrigation and fertiliser to plantations of selected fast growing species, production of wood can be increased upto 4 to 5 times *i. e.* 10 to 15 tonnes per hectare per annum. In addition, under irrigated conditions bamboos can also be intermixed with trees species. Economically, irrigated plantations with higher inputs are much more attractive compared to unirrigated plantations. It is proposed to take up this activity through the Gujarat State Forest Department Corporation by obtaining institutional finance. However the Plantation raised in the part, including 115 hectares in 1985-86 will be maintained, for which a provision of Rs. 149.2 lakhs is made for the Seventh Plan period.

Plantation of Minor Forest Produce

1.7.5.20 Minor forest products have proved of substantial economic value for tribals residing in the forest areas. Their contribution for the well-being of the forest dwellers through employment opportunity they provide and the food value of some of them has been immense. Looking to the important contribution MFP makes to tribal life, it is proposed to raise MFP farms. Tree and shrub species like timru, Mahudha, Kadaya; etc. will be raised in concentrated patches either singly or as under storey or mixed crop under the scheme. It is proposed to raise 930 hectares of MFP farms at the cost of Rs. 30.95 lakhs during the Seventh Plan period.

Plantation of Medicinal Plants

1.7.5.21 Ayurvedic stream of medical science has of late gained considerable importance in Gujarat. Ayurvedic medicines are extracted mostly from plant material such as flowers, fruits, bark, leaves, roots etc. As trees yielding these are generally found scattered over wide areas, their collection is made difficult and economically unviable. Also because of excessive biotic influence, some of the plant species, especially some herbs and shrubs are becoming rare. It is, therefore, proposed to raise plantations of important medicinal plants over an area of 385 hectares during the Seventh Plan at a cost of Rs. 14.4 lakhs.

Farm Forestry.

Distribution of Seedlings

1.7.5.22 Under this scheme it is proposed to raise and distribute 100 crore seedlings during the Seventh Plan period under Community Forestry Project phase-II. Efforts will be made to raise more seedlings through other programmes of NREP and RLEGP. The State Government Department would also motivate the public to raise their own nurseries and provide technical know-how to them. A provision of Rs. 106.2 lakhs is made for the Seventh Plan period.

Communication and Buildings.

Development of Communication

1.7.5.23 The value of forest produce depends to a large extent on its accessibility and quick transport to the marketing centre. A good network of roads not only adds to the value of the forest produce but also make it possible to harvest economically inaccessible areas in the interior of the forests. The scheme aims at converting some of the existing cart tracts into motorable roads and also lay out new alignments and construction of roads. It is proposed to improve metal 40 km. of roads at the cost of Rs. 31.4 lakhs during the Seventh Plan.

Construction of Buildings

1.7.5.24 Forest Department needs to construct buildings of two categories. (1) Grass godowns and (2) office and residential buildings for forest subordinates in interior forest areas. There is need to expand storage capacity for grass to meet scarcity conditions. It is proposed to construct 3 additional grass godowns to increase storage capacity by 4.5 lakh kgs. during the Seventh Plan. The godowns will also have Chowkidar quarters, fencing and fire fighting equipments etc.

1.7.5.25 Forest subordinates are required to stay in interior forest area. But living accommodation in such areas is hardly available. Forest protection duties demand the continued presence of field staff in the interior areas. With this in view, forest subordinates have been entitled to free Government accommodation and attempts have been made in the past to provide accommodation in the interior areas to enable the subordinates to stay at their headquarters. However, at a large number of places accommodation facilities are still lacking. It is, therefore, proposed to construct 450 buildings for forest subordinates and offices during the Seventh Plan at a cost of Rs. 130.15 lakhs.

Preservation of Wild Life

1.7.5.26 Considering the importance of wildlife the plan embarks upon a strategy for intensive development of existing 11 sanctuaries and 4 national parks in the State and also to develop new sanctuaries to be established during the Seventh Plan

period. In order to have scientific management of the sanctuaries and the national parks, detailed management plans are on the anvil. With the purpose of creating awareness of importance of wildlife, in the ecology and environment, zoological gardens and parks are also proposed to be established.

1.7.5.27 Wildlife has not remained a matter of mere sight seeing and tourism but its scientific management, the interpretation of their behaviour in different conditions are all matters of understanding and learning. The education in wildlife management will be imparted to forest officers and people in general in order to create awareness of nature and wildlife. Nature camps would be organised for children and also for general public.

1.7.5.28 Gujarat's unique diversity of its habit and its wide spread fauna requires realization of the complex eco-system and its interdependence with the wildlife. This is required to be studied in depth. Thus, the need for systematic research in the environment and wild life management is recognised and it is proposed to establish an institute for the purpose.

1.7.5.29 In order to get people's participation in the conservation efforts due priority has been given by providing separate schemes for education, interpretation and publicity.

In view of the above background following schemes under wildlife management are proposed in the Seventh Plan.

(Rs. in lakhs)

Name of the scheme.	Outlay for Seventh Plan period—1985-90.
Management of sanctuaries and national parks.	46.65
Development of Gir Lion in Barda Lion Sanctuary.	66.35
Development of Wild Ass Sanctuary.	13.00
Development of Zoological and Wildlife Parks.	26.00
Development of Jessore, Ratanmahal, Dumkhal Sloth Bear Sanctuary	13.00
Development of Vansda National Park and Purna Game Sanctuary.	13.00
Wildlife Education Interpretation and Training.	37.80
Esstt. of Marine National Park.	84.50
Exhibition to promote wildlife.	16.25
Development of Nalsarovar Bird Sanctuary.	19.50
Preparation of wildlife management plans for Sanctuaries and National Parks.	16.25
Wildlife conservation outside Sanctuaries and National Park.	9.75
Development of Black Buck National Park.	24.95
	<hr/> 387.00

Extension

Community Forestry Project (World Bank Programme)

1.7.5.30 For a forest poor State like Gujarat extension of tree boundaries to all possible unutilised and under utilised lands is the only way to solve fuelwood problem. Because of scarcity of firewood large quantity of dunge cake is burnt which could otherwise be diverted to farm as manure. In order to meet the requirement in shortest possible time, to induce the village community to actively participate in tree plantation programme through appropriate extension programme and sharing of the plantations revenue, Gujarat started social forestry programme in 1969-70. The programme gradually expanded in scope and implementation.

1.7.5.31 The programme finally matured in the form of a Five Year World Bank Project viz Community Forestry Project, Gujarat with a target of raising 1,05,440 hectares of plantation on strips, village lands, degraded forest lands; marginal and sub-marginal private lands and wood saving devices in the form of smokeless stoves and improved crematoria at the cost of Rs. 65.4 crores, implementation of which coincided with Sixth Plan period 1980-85. All the physical targets have been fully achieved. Encouraged by the success of the project, Community Forestry Project Phase-II is proposed for the Seventh Plan period.

Phase-II of the Community Forestry Project proposes to cover 1,20,000 hectares of different kinds of lands as under:

<i>Model</i>	<i>Area</i> (in hectares)
Strip plantations	15,000
Village woodlot (Irrigated)	5,000
Village woodlot (rainfed)	20,000
Fodder development (Irrigated)	2,000
Fodder development)(rainfed)	10,000
Reforestation of degraded areas	35,000
Farm forestry	30,500
Rural fuelwood plantation	2,500
Distribution of seedlings	100 seedlings.

The project is estimated to cost Rs. 150 crores of which Rs. 93.40 crores are provided during Seventh Plan covering an area of 60500 hectares.

Social Forestry including Rural Fuelwood Plantation (Centrally Sponsored)

1.7.5.32 Nearly 85% of the domestic fuel in the rural areas consist of firewood (74%) and dung cake (11%). Dung cake which is a good field manure is burnt as fuel because firewood is in short supply. In the rural areas in most of the house holds, atleast one member of the family spends nearly half of his/her working time in collecting twigs, brush wood, dung cake for use as fuel. Supply of firewood at reasonable price close to habitation has, therefore, assumed great importance.

1.7.5.33 Therefore, under the Centrally Sponsored Scheme, fuelwood plantations are proposed to be raised in rural areas in 12,300 hectares during the Seventh Plan period at the cost of Rs. 770.71 lakhs of which Rs. 508.65 lakhs would be State share and the balance Central share.

Management of Zamindari

Acquisition of Private Forests

1.7.5.34 Gujarat State acquired nearly 1187 sq.kms. of privately owned forest areas in 1973 for bringing them under scientific management. Under the private Forest Acquisition Act, 1973, the ex-owners of the private forests are eligible for compensation as per the provisions of the Act. The proceedings by the Revenue Department to determine the amount of compensation to be paid in individual cases are still in progress. Since the proceedings are not yet completed, provision for payment of awards and for management of the forest will have to be made during the Seventh Plan 1985-90. It is proposed to provide an amount of Rs. 67.8 lakhs for this scheme during the Seventh Plan.

Other Programmes

Individual Beneficiary Schemes

1.7.5.35 To create a sense of belonging increase the goodwill between tribals and foresters and stop exploitation of tribals by local money lenders and middlemen, welfare schemes for tribal and others living in and around forest areas have been initiated:—The following schemes are therefore proposed for the purpose :

- (a) Grain bank.
- (b) Tagavi loan
- (c) Firewood depots.

An amount of Rs. 37.1 lakhs has been proposed for these scheme for the Seventh Plan.

Tribal Welfare Schemes

1.7.5.36 The following tribal welfare schemes are proposed during the Seventh Plan.

- (a) Kotwalia Welfare
- (b) Wood Workshop

A provision of Rs. 4 lakhs is made for these schemes during the Seventh Plan.

Demarcation and Survey

1.7.5.37 There are forest areas which are yet to be surveyed and demarcated and are in the process of being declared reserve forests. It is necessary to survey and demarcate these areas for better protection and save them from encroachment.

An amount of Rs. 34.9 lakhs is provided for the scheme during the Seventh Plan to survey and demarcate 34,000 hectares of forest areas.

Forest Publicity

1.7.5.38 During the Seventh Plan, it is proposed to strengthen publicity organisation by equipping it with modern means of publicity and also strengthen publicity organisation. A provision of Rs. 27.5 lakhs is made for the Seventh Plan.

Development of Special Sites

1.7.5.39 Industrialisation and development has led to fast moving life not only in cosmopolitan cities but also in smaller townships. With this, recreation opportunities have also come to be appreciated. But unfortunately all the development in the field of recreation has been centred around un-natural surroundings and paucity of recreational opportunities in natural surroundings has been felt. Forests can meet the requirements, if some suitable sites are properly developed. Two specific sites identified for the purpose have been Victoria Park at Bhavnagar and Kabir Vad in Bharuch District. It is proposed to identify more of such spots and develop them along highways to provide opportunity for short breaks and picnic. It is proposed to provide a sum of Rs. 12.50 lakhs during the Seventh Plan for the purpose.

Gujarat State Forest Development Corporation

1.7.5.40 During the Seventh Plan, the GSFDC proposes to increase activities under its on-going programmes of collection and marketing of minor forest products, operation of integrated wood working unit etc. and proposes to initiate new activities and projects.

1.7.5.41 These activities would involve a total investment of Rs. 2650 lakhs of which Rs. 64.4 lakhs will be provided by the State Government. Some of the proposed activities are as under:—

- Grading, marketing and improvement in quality of MFP.
- Expansion of integrated wood working unit.
- Intensive development of Valsad forests.
- Establishment of forest based industries.
- Establishment of oil mill and Soap making unit.
- Training of tribals to increase qualitative and quantitative collection of MFP by the tribals.
- Establishment of MFP processing units.
- Creation of additional storage facility.
- Establishment Saw mills.
- Bidi rolling training.
- Development of Kolghas.
- Game farming.
- Bullock Cart Project for tribals.
- Inter-cropping of annual crops of MFP

- Supply of Nagli seedling to tribals.
- Establishment of grain banks.
- Planting of economically important and useful trees in homesteads.
- Incentives to tribals for the removal of fire-wood from rabs.
- Plantation scheme of M.F.P. species.
- Soil conservation in catchment of Daman-Ganga Project.

1.7.5.42 It is also proposed to form small co-operative societies of 10 to 15 primary collectors engaged on M.F.P. collection who shall carry out grading and processing of M.F.P. and work on finished products.

Forest Labourer's Co-operative Societies

1.7.5.43 With a view to a meliorating the economic conditions of the adivasis and eliminating the middlemen. Forests Labourers Cooperative Societies have been organised in the State since pre-independence period. The societies are allotted forest coups by Government. These coups are operated by the tribals under the guidance of the Forest Department. The administrative and other expenses are incurred as per the rates fixed by the Wage Board. The profit in the working of coups is shared in the ratio of 80:20 between Government and societies. The work of collection of minor forest produce is also handled by such societies. By and large, the management of the societies is in the hands of adivasis.

1.7.5.44. The number of forest labourers societies in the State was 150 as on 30th June, 1983 with a membership of 1,13,000. The turnover of these societies was of Rs. 1625.53 lakhs.

1.7.5.45. Financial assistance by way of sub-sidy and share capital contribution is given to newly organised societies @Rs. 1500/. for welfare activities for first 3 years and @Rs. 1200/ for management expenses for five years and share capital @Rs. 3000/ per society.

A package scheme to provide financial assistance to forest labourer co-operative societies for purchasing transport vehicle, for construction of workshed and for working capital is proposed replacing the present pattern of assistance in the Seventh Plan. An outlay of Rs. 6 lakhs is provided for the Seventh Plan for this purpose.

STATEMENT

Schemewise outlays for the Seventh Five Year Plan 1985.90

(Rs. in lakhs)

Sr. No. 1	No. and name of the scheme 2	Outlay 3
I. DIRECTION AND ADMINISTRATION		
1.	FST—1 Forest Protection	174.30
2.	FST—2 Planning and Evaluation	14.10
	Total :—I	188.40
II. RESEARCH		
3.	FST—3 Forest Research	35.00
	Total : II	35.00
III. EDUCATION AND TRAINING		
4.	FST—4 Training of staff	144.20
	Total : III	144.20
IV. FOREST CONSERVATION AND DEVELOPMENT		
5.	FST—5 Soil and Moisture Conservation	435.70
6.	FST—6 Desert border	235.40
7.	FST—7 Coastal border	42.90
	Total:—IV	714.00
V. PLANTATION SCHEMES		
8.	FST—8 Fuelwood and Small timber plantation	442.15
9.	FST—9 Teak, Khair and Bamboo Pltn.	452.50
10.	FST-10 Irrigated Plantation	149.20
11.	FST-11 Plantation of Minor Forest Products	30.95
12.	FST-12 Plantation of Medicinal plants	14.40
	Total:—V	1089.20
VI. FARM FORESTRY		
13.	FST-13 Distribution of seedlings	106.20
	Total : VI	106.20
VII. COMMUNICATION AND BUILDINGS		
14.	FST-14 Development of Communication	31.40
15.	FST-15 Construction of buildings	130.15
	Total:—VII	161.55

Sr. No.	No. and name of the scheme	Outlay
1	2	3
VIII. PRESERVATION OF WILD LIFE		
16.	FST-16 Management of Sanctuaries and National Parks	46.65
17.	FST-17 Development of Gir and Barda Lion sanctuaries (css)	66.35
18.	FST-18 Development of Wild Ass sanctuaries (css)	13.00
19.	FST-19 Development of Zoological and Wildlife Parks (css)	26.00
20.	FST-20 Development of Jessor, Ratanmahal and Dumkhal Sloth Bear Sanctuaries (css)	13.00
21.	FST-21 Development of Vansda National Parks and Purna Game Sanctuaries (css)	13.00
22.	FST-22 Wild life Education, Interpretation and Training	37.80
23.	FST-23 Establishment of Marine National Park	84.50
24.	FST-24 Exhibition to promote Wild Life	16.25
25.	FST-25 Development of Nalsarovar Bird Sanctuary	19.50
26.	FST-26 Preparation of Wildlife management plans for sanctuaries and national parks (css)	16.25
27.	FST-27 Wild Life Conservation outside sanctuaries and national parks	9.75
28.	FST-28 Development of Black Buck National Parks (css)	24.95
Total:— VIII		387.00
IX. EXTENSION		
29.	FST-29 Community Forestry Project	9340.00
30.	FST-30 Social Forestry including Rural Fuelwood Plantation (css)	508.65
Total:— IX		9848.65
X. MANAGEMENT OF ZAMINDARI		
31.	FST-31 Acquisition of Private Forests	67.80
Total ;—X		67.80
XI. OTHERS		
32.	FST-32 Individual Beneficiary Scheme	37.10

Sr. No.	No. and name of the scheme	Outlay
1	2	3
33.	FST-33 Tribal Welfare	4.00
34.	FST-34 Demarcation and Survey	34.90
35.	FST-35 Forest Publicity	27.50
36.	FST-36 Development of Special Sites	12.50
37.	FST-37 Contribution to GSFDC	64.40
38.	FST-38 Forest Labourers Cooperative Society	6.00
	Nucleus Budget	35.60
	Total:— XI	<u>222.00</u>
	GRAND TOTAL	<u><u>12964.00</u></u>

1.3 INVESTMENT IN AGRICULTURAL FINANCIAL INSTITUTIONS

1.8.1. Introduction

1.8.1.1. Progressive institutionalisation has been the strategy in the field of agricultural credit. Long term finance is provided to the agriculturists by the Gujarat State Cooperative Land Development Bank for construction of wells, repairs or deepening of old wells, pump sets, (engines and motors), tractors, purchase of occupancy rights under the Land Reforms Act and other miscellaneous purposes.

1.8.1.2. At present, the Gujarat State Co-operative Land Development Bank Ltd. provides long term finance to the farmers for increasing agricultural production. It gives loans to the farmers for land development and improvement, Minor irrigation, purchase of tractors, oil engines, electric motors, for repairing of old wells and other diversified purposes, like dairy development, cold storage etc. The loan is given against the mortgage of lands. The funds required for these purposes, are raised by floating ordinary and special debentures guaranteed by the Government.

1.8.1.3. The Bank mainly issues two types of debentures, viz., (1) Ordinary Debentures and (2) Special Debentures. In special debentures NABARD, Central Government and State Government invest the following ratios :—

<i>Schemes</i>	<i>NABARD</i>	<i>Central Govt.</i>	<i>State Govt.</i>
Farm mechanisation	75%	12.5%	12.5%
Minor Irrigation	95%	2.5%	2.5%
Others	85%	7.5%	7.5%

1.8.1.4. In ordinary debentures, investment is made by the L.I.C., Commercial Banks, Provident Funds Commissioner, Land Development Bank of other States, Central Government, State Government as advised by the NABARD.

1.8.2. Review of Progress

1.8.2.1. In the Sixth Five Year Plan, an outlay of Rs. 350.00 lakhs was provided for investment in the debentures floated by the Bank for carrying out its lending programme against which Rs. 306.01 lakhs have been utilised. Details of year-wise provisions and expenditure are as under :—

Year	(Rs. in lakhs)	
	<i>Provision</i>	<i>Expenditure</i>
1980-81	90.00	19.95
1981-82	60.00	27.07
1982-83	75.00	73.99
1983-84	85.00	85.00
1984-85	100.00	100.00 (Provisional)

1.8.2.2. Details regarding target of long-term finance and achievement by the Land Development bank during the Sixth Plan period are as under :—

(Rs. in crores)

<i>Year</i>	<i>Target</i>	<i>Achievement</i>
1980-81	10.00	5.77
1981-82	15.00	13.99
1982-83	15.00	14.53
1983-84	19.00	22.57
1984-85	19.00	18.60

1.8.3. Strategy of Development

1.8.3.1. Important aspects of development strategy for this sub-sector are :

(1) The Land Development Bank will continue to give priority for development of minor irrigation because of its importance in the context of enhancement and development of agricultural productivity.

(2) Concerted efforts will be made by Land Development Bank to diversify their lending programmes for non-land based purposes and other developmental activities which are subsidiary to agriculture.

In this context, the bank will intensify their credit support and substantive coverage of small farmers and weaker sections so that by the end of the Seventh Plan, at an aggregate level, 60% of their advances would go to weaker sections.

(3) Concerted efforts will be made to strengthen the organisational structure of Land Development Banking at various levels. Besides, functional coordination between two segments of co-operative agricultural credit sector- short term and long-term will be developed.

1.8.3.2. In order to improve recovery position, steps will be taken for sound lending, monitoring of the proper use of fund and establishing more effective link and contacts with borrowers.

1.8.4. Programme for Seventh Plan 1985-90

1.8.4.1. Looking to the proposed lending programme of the Land Development Bank and achievements in the Sixth Plan an outlay of Rs. 971.00 lakhs has been provided for the Seventh Plan for making investment in the debentures floated by the Gujarat State Co-operative Land Development Bank Limited, Ahmedabad.

1.8.4.2. During the Seventh Plan period, LDB is expected to advance additional long-term finance to the tune of Rs 215.00 crores.

Schemewise Outlay for the Seventh Five year Plan 1985-90

(Rs. in lakhs)

Sr. No.	No. and Name of the Scheme	Outlay
1	2	3
Agricultural Financial Institutions		
AGC-1	Investment in debentures of Gujarat State Co-operative Land Development Bank	971.00

1.9. MARKETING, AND WAREHOUSING

1.9.1. Introduction

1.9.1.1. A well developed marketing system implies in itself assurance of fair return of produce to farmers, curbing of irregular or unfair malpractices in trade, providing better facilities and amenities in mandies and providing ware housing facilities. Under the aegis of the Gujarat Agricultural Produce Market Act, 1963 there are 147 market committees together with 129 principal yards and 179 sub-yards. The Gujarat State Warehousing Corporation has also been established under the Warehousing Corporation Act, 1962 and the Corporation has created the storage facilities of 96800 M. Ts. upto 31-3-1984.

1.9.2. Review of Progress

1.9.2.1. Financial assistance in terms of loan and subsidy is being provided for implementing the Gujarat Agricultural Produce Market Act. A separate Directorate of Agricultural Marketing is envisaged in the Seventh Plan. Contribution is also being made to the State Agricultural Marketing Fund as laid down under the statute. A State Agricultural Marketing Board has also been constituted.

1.9.2.2. The Central Government also extends the assistance to the regulated markets under various Central Sector schemes and the market committees of the State have availed of the assistance of Rs. 82 lakhs upto 30-6-1984.

1.9.2.3. The number of regulated markets which was 287 in 1979-80 has increased to 303 by the end of the Sixth Plan; while storage capacity of State Warehousing Corporation reached to 0.96 lakh tonnes from 0.73 lakh tonnes during the same period.

1.9.3. Strategy for Development

1.9.3.1. The main strategy for Seventh Plan period along with the present scheme can be briefed as under

—To enforce the legislation in the remaining talukas/areas of the State and create infrastructural facilities and amenities in sub-yards and yards .

—To establish separate Directorate for Agricultural Marketing.

—To constitute statutory State Agricultural Marketing Board by law.

—To establish Central Agmark Laboratory.

—To establish Research and Training Centres.

—To bring under regulation the hats and mandies especially in tribal areas.

1.9.4. Programmes for Seventh Plan 1985-90

An outlay of Rs. 121 lakhs has been provided in the Seventh Plan for this Sub-sector.

Scheme for Development of Regulated Markets

1.9.4.1. At present loan covering 100% of the cost of the land subject to a ceiling of Rs. 5 lakhs is being provided to the market committees. No loan is

available for other development works. It is therefore, felt necessary to expand the scope of the scheme to sanction loan for all developmental purposes within the revised ceiling of Rs. 20 lakhs. The market Committees of tribal areas would be given 50% amount of the estimated expenditure as loan and 50% as subsidy. A sum of Rs. 38.00 lakhs has been provided for the scheme in the Seventh Plan.

Share Capital contribution to the State Warehousing Corporation

1.9.4.2. Under the provisions of the Warehousing Corporation Act, 1962 State Government contributes on matching basis to build up the share capital of the State Warehousing Corporation at the rate of 50% of the issued share capital. An outlay of Rs. 10 lakhs has been provided in the Seventh Plan for this purpose.

Establishment of Directorate of Agricultural Marketing

1.9.4.3. The State Government in principle has agreed to establish a separate Directorate of Agricultural Marketing. An outlay of Rs. 30 lakhs has been provided in the Seventh Plan.

Agricultural Produce Market Fund

1.9.4.4. As laid down under the statutory provisions, the State Govt. has to contribute to the fund. An amount of Rs. 5 lakhs has been provided for this scheme in the Seventh Plan.

State Agricultural Marketing Board.

1.9.4.5. The State Agricultural Marketing Board (Advisory) is constituted by the Government, To assist the board in its smooth functioning till the statutory marketing board is constituted and till it creates its own sources of income, an outlay of Rs. 3 lakhs provided for the Seventh Plan period.

Financial assistance to Market Committees

1.9.4.6. In the initial years of establishment, the market committees have no funds and surpluses to implement the Act and to enforce its provisions. Therefore to meet the managerial expenses for the first two years it is felt necessary to reimburse the market committees such expenses to a ceiling of Rs. 20,000. Again rural market committees need to be given loan at the rate of Rs. 20,000 to commence the functions when no sources of income have been created. An outlay of Rs. 6 lakhs is provided for the Seventh Plan.

Assistance for Market intelligence

1.9.4.7. Financially weak market committees find it difficult to meet the post/ telegraphic and other expenses incurred in furnishing the price data and information regarding arrivals of commodities etc. to various Govt. Offices/agencies. It is proposed to sanction subsidy to meet local day-to-day expenses to a ceiling of Rs. 10,000. An amount of Rs. 2 lakhs is provided for the Seventh Plan.

Loan for equipment and instruments

1.9.4.8. The market committees which find it difficult to install weigh bridges and to purchase weigh scales etc. in bulk as required by them are proposed to be assisted in terms of loan. An initial amount of Rs. 2 lakhs is provided for the scheme.

Central Agmark Laboratory

1.9.4.9. To act as supervisory role over the existing State Agmark Laboratories and to extend the scope of additional commodities under Agmark it is proposed to have a Central State Level Agmark Laboratory and an outlays Rs. 5 lakhs is provided for the purpose in the Seventh Plan.

Research and Training Centre

1.9.4.10. For providing training facilities to persons connected with market regulations and for carrying out market research in agricultural marketing it is proposed to establish training and research centre at an estimated cost of Rs. 4 lakhs.

Hats and Mandies

1.9.4.11. In tribal areas of the State, weekly Hats/Mandies are being organised at many places which are yet not brought under the fold of Agricultural Produce Market Act. To protect the interest of agriculturists and to create basic infrastructure an amount of Rs. 16 lakhs is provided for this scheme to assist the agencies which may develop rural hats in terms of loan, subsidy and managerial assistance.

Schemewise Outlay for the Seventh Five Year Plan 1985-90

(Rs. in lakhs)

Sr.No.	Head of Development	Outlay
1	2	3
I. Marketing		
1	WRH-1 Development of Regulated Markets	
	(a) Loan	30.00
	(b) Subsidy	8.00
	Total	<u>38.00</u>
2	WRH-2 Establishment of Directorate staff	30.00
3	WRH-3 Financial Assistance to State Agricultural Marketing Board	
	(a) Subsidy	3.00
4	WRH-4 Financial Assistance to State Agricultural Produce Market Fund	
	(a) Subsidy	5.00
5	WRH-5 Financial Assistance for Market Intelligence	
	(a) Subsidy	2.00
6	WRH-6 Loan for equipment and Instrument	2.00
7	WRH-7 Financial Assistance to Market Committee	
	(a) Loan	3.00
	(b) Subsidy	3.00
8	WRH-8 Establishment of research and Training Centre	
	(a) Subsidy	4.00
9	WRH-9 Establishment of Central Agmark Laboratory	
	(a) Subsidy	5.00
10	WRH-10 Scheme to regulate Hats & Mandies WRH-10	
	(a) Staff	4.00
	(b) Loan	6.00
	(c) Subsidy	6.00
	Total-I-Marketing	<u>111.00</u>
II. Storage and Warehosings		
11	WRH-11 State Warehousing Corporation	
	(a) Share Capital	10.00
	Total : Storage and Warehousing	<u>10.00</u>
	Grand Total	<u>121.00</u>

2. RURAL DEVELOPMENT

2.1. SPECIAL PROGRAMMES FOR RURAL DEVELOPMENT

2.1.1. Introduction

2.1.1.1. Poverty and unemployment are the main problems of the rural areas. Removal of poverty and unemployment has underscored the philosophy behind all Five Year Plans in India. A variety of programmes and schemes were designed to ameliorate the conditions of rural poor. The approach of a frontal attack on poverty by designing specific programmes for creation of employment and transfer of assets became well delineated in the Sixth Plan. With a view to accelerating economic activities and stepping up of employment opportunities in rural areas to alleviate poverty it was necessary to create and increase opportunities for employment and income generation. To achieve these objectives a multi-pronged strategy was adopted during the Sixth Plan.

The main elements in the strategy included :-

- Programmes for transfer of productive assets, skills and technology to the rural poor,
- Works programmes for creation of supplementary employment opportunities and
- Special Area Development Programmes.

2.1.2. Review of Progress

2.1.2.1. During the Sixth Plan major efforts of rural development were centred on the following Programmes:

- Resource and income development for the rural poor through Integrated Rural Development Programme (IRDP)
- Works programmes for creating supplementary employment opportunities through National Rural Employment Programme (NREP) and Rural Landless Employment Guarantee Programme (RLEGP)
- Special Area Development Programme through Drought Prone Area Programme (DPAP) and Desert Development programmes (DDP)
- During 1983-84, a new programme *Viz.* Development of women and Children in Rural Areas (DWCRA) was taken up.

2.1.2.2. Physical Progress realised under important programmes is as under:-

Integrated Rural Development Programme (IRDP)

2.1.2.3. Under IRDP, against the target of assisting 6.54 lakh families during the Sixth Plan in 218 Blocks at the rate of 1,30,800 families per annum about 7.10 lakh families were assisted. Against the target of assisting 3000 families per Block during the Sixth Plan, on an average 3258 families were assisted. Further, of the families assisted during the Sixth Plan, the proportion of SC/ST works out to 37.1% as against minimum 30% as per guideline of the programme.

2.1.2.4. TRYSEM which is an integral part of IRDP aims to equip the rural youth with necessary technical skills and technology to enable them to seek self-employment. During the Sixth Plan about 63049 rural youths had completed training, of whom about 25271 youths have become self-employed and about 8459 youths have got wage employment.

2.1.2.5. The Antyodaya Scheme was introduced as a State Plan Scheme with effect from 1st May, 1979. It was meant for assisting the poorest among the poor for acquiring income generating assets by giving 50 percent subsidy assistance and loan wherever necessary. During the Sixth Plan 55,732 families were assisted under the scheme. With the extensive coverage under IRDP, the scheme was slowed down during the Sixth Plan.

Development of Women and Children in Rural Areas (DWCRA)

2.1.2.6. The scheme for Development of women and children in rural areas (DW-CRA) was introduced in 1983-84 as a sub-scheme of IRDP in Ahmedabad and Junagadh districts. The scheme aims to help women to avail of the facilities already available under IRDP and, where individual women are found to be incapable of taking advantage of these facilities this scheme helps organising women in homogeneous groups to take up economically viable activities on a group basis. 118 women groups with membership of 2056 women have been organised during the Sixth Plan.

National Rural Employment Programme (NREP)

2.1.2.7. National Rural Employment Programme (NREP) aims at providing additional gainful employment for the unemployed and underemployed persons in the rural areas and creating durable community assets for strengthening the rural infrastructure, which will lead to rapid growth of rural economy while providing employment opportunities and steady rise in the income level of the rural poor. The programme also aims at improving the nutritional status and living standard of the rural poor. Community works which directly help in strengthening the rural infrastructure and result in the creation of durable community assets in the rural areas are undertaken under the programme. Under the programme priority is given to such community works which provide a direct boost to rural economy. (It was 10% during the Sixth Plan) In order to ensure that benefits of this programme reach the weaker sections of the society, 10% of the allocation under the programme is earmarked for schemes directly benefiting the scheduled Castes and Scheduled Tribes. For social forestry 20% of the outlay is now earmarked. The Programme is being implemented as a centrally sponsored scheme on 50:50 sharing between the State and Central Government.

2.1.2.8. The labourers on NREP works were being paid their daily wages on the basis of Minimum Agricultural Wages prevalent in the State. From 5-11-84 Government of Gujarat has directed payment to the labourers on NREP works on the basis of minimum wages fixed for Departmental Works under the Minimum wages Act.

2.1.2.9 In addition to allocation of Rs. 5077.50 lakhs (state and central share) made during the Sixth Plan through Annual Plans, an amount of Rs. 355.20 lakhs comprising Rs. 141.41 lakhs during 1982-83, Rs. 12.79 lakhs during 1983-84 and Rs. 200.00 lakhs during 1984-85 was given as additional allocation by the Government of India and the state Government provided the matching share. Thus for NREP a total outlay of Rs. 5787.91 lakhs (Comprising state share and central share) was made available during the Sixth Plan against which expenditure of Rs. 5656.88 lakh has been incurred. Against the target of generating employment of 363.88 lakh mandays the achievement was 504.40 lakh mandays during the Sixth Plan.

2.1.2.10. As against the prescribed minimum of 10% outlay being utilised for works directly benefitting SC/ST about 34.1% of the total expenditure has been incurred during the Sixth Plan for the works/assets directly benefitting SC/ST. Further, of the total employment of 504.40 lakh mandays generated under the programme during the Sixth Plan, 52.8% was availed of by scheduled caste (14.4%) and scheduled tribes (38.4%).

2.1.2.11. Further, as per the guidelines of the programme atleast 10% of the outlay was to be earmarked for social forestry. Of the total expenditure under NREP during the Sixth Plan 13.8% was incurred on social forestry.

The details of assets created under NREP during the Sixth Plan is brought out below.

Item	Unit.	Achievement (1980—85)
Social Forestry	Hect.	21758
	No. of trees in lakhs.	1710
Housing units for SC/ST.	No.	44133
Village Tanks	No.	540
Minor Irrigation/Flood Protection works etc.	No.	527
Soil & Water Conservation	Hect.	12113
Rural Roads	K. M.	7400
School Rooms	No.	717
School Compound walls	No.	106
Panchayat Ghars	No.	106
Community Centres	No.	10
Balwadi Buildings	No.	13

Rural Landless Employment Gurantee Programme (RLEGP)

2.1.2.12. The RLEGP, introduced during 1983-84, with more or less the same objectives as those of NREP is entirely funded by the Central Government. The projects under the scheme are sanctioned by the Central Sanctioning Committee. Under various sectors works with total estimated cost of Rs. 2985.32 lakhs were sanctioned by Government of India during the Sixth Plan. Against the allocation of Rs. 1920.00 lakhs during the Sixth Plan, expenditure of Rs. 1595.71 lakhs has been incurred. Employment of 85.33 lakh mandays was generated during the Sixth Plan.

Drought Prone Area Programme (DPAP)

2.1.2.13. The centrally sponsored scheme for DPAP was being implemented in 42 talukas in the districts of Ahmedabad, Amreli, Bhavnagar, Jamnagar, Kachchh, Panchmahals, Rajkot and Surendranagar during the Sixth Plan. During 1982-83, with a view to removing the overlapping of the DPAP and the DDP the former was discontinued in 8 talukas of Banaskantha and Mehsana districts where the DDP alone is to be implemented. The programme lays stress on integrated area development to restore the ecological balance and to make the best use of the limited resources in the drought

affected areas to achieve drought proofing. The ultimate objective is to reduce through appropriate investment and technology, the severity of drought conditions and create a long term stable base for production and employment. The important programme elements are development and management of water resources; afforestation and grassland development; soil and moisture conservation on water-shed basis; animal husbandry and dairy development. An expenditure of Rs. 3070.35 lakhs comprising state share and central share was incurred during the sixth plan. The important achievements under the programme during the Sixth plan are given below :

Item	Unit	Achievement 1980—85
Direct irrigation potential created.	Hect.	9060
Afforestation and Pasture Development.	Hect.	17940
(a) Plantation	Hect.	17940
(b) Pasture Development.	Hect.	4231
Soil Conservation :		
(a) Area under soil conservation.	Hect.	10950
(b) Farm ponds	No.	860
Animals Husbandary & Dairy Development		
(a) Establishment of milk co-operative societies.	No.	760

Desert Development Programme

2.1.2.14. The main objective of this centrally sponsored programme is integrated development of the desert areas by increasing the productivity, income level and employment opportunities for the inhabitants through optimum utilisation of physical, human, livestock and other bio-logical resources. In striking to achieve this ultimate objective, the programme would emphasise prevention of further deterioration of the desert areas and arrest the spread of desert and desertic condition. The programme is a centrally sponsored one and funds are provided on 50:50 basis by the State Government and the Central Government. The programme was introduced in 11 talukas in 1977-78 and was being implemented in 11 talukas of the State upto 1981-1982. From 1982-83 onwards DDP has been discontinued in 3 talukas of Kachchh district where the DPAP alone is to be implemented. During the Sixth Plan the programme was implemented in 6 talukas of Banaskantha district and 2 talukas of Mehsana district. An expenditure of Rs. 569.90 lakhs (comprising State share and Central share) was incurred during the Sixth Plan. The important achievements under the programme during the Sixth plan are given below ;

Item	Unit	Achievement 1980—85
Afforestation		
(a) Plantation	Hect.	10720
(b) Shelter Belt	K.M.	90
(c) Grass Improvement	Hect.	440
(d) Irrigation Tubewells	No.	21
Fodder Farm Development	No.	36
Soil Conservation	Hect.	480

2.1.3. Approach and strategy for the Seventh Plan

2.1.3.1. Approach to Seventh Plan lays emphasis on rural development through programmes like IRDP, NREP and RLEGP. These programmes will continue with better planning, closer monitoring and tighter organisation for effective implementation. These programmes will be implemented during the Seventh Plan with their focus sharpened for taking the benefits to the target groups and households.

2.1.4. Programmes proposed for Seventh Plan 1985-90

2.1.4.1. A programme with an outlay of Rs. 11035 lakhs in the State Plan has been proposed for the Seventh Plan. The schemewise outlays proposed are given below:

Sr. No.	Programme	Outlays proposed (Rs. in lakhs).
1.	Integrated Rural Development Programme (IRDP)	5284.00
2.	Development of Women and Children in Rural Areas (DWCRA)	40.00
3.	National Rural Employment Programme (NREP)	3700.00
4.	Drought Prone Area Programme (DPAP)	1575.00
5.	Desert Development Programme (DDP)	256.00
6.	Strengthening and Supporting of Special Programme Organisation.	80.00*
7.	Strengthening of Training Facilities for Rural Development.	10.00
8.	Project Linkage	35.00
9.	Regional Rural Bank	11.00
10.	Integrated Village Environment Improvement programme (IVEIP)	44.00*
	Total	11035.00

*The outlay will be enhanced through the mechanism of Annual Plan.

Integrated Rural Development Programme.

2.1.4.2. In conformity with the approach laid down by the Planning Commission efforts will be concentrated for providing income-generating assets to the identified poorest among the poor families as the core of the antipoverty programme.

2.1.4.3. It has been observed that inadequate per household investment has resulted in low economic returns to the beneficiary families. In view of this the scope of

the programme is proposed to be focused on giving sufficient investment to the identified poor.

2.1.4.4. The strategy for IRDP during the Seventh Plan will be two fold. Firstly to consolidate the gains made during the Sixth Plan and those beneficiaries who have not been able to cross the poverty line, will have to be given supplementary dose of assistance. It is proposed to complete the process of giving supplementary dose of assistance during the first three years of the Seventh Plan. The exact number of families assisted during the Sixth Plan but not crossing the poverty line and eligible for supplementary dose will be determined through a case to case survey. Considering the relevant criteria on a broad estimate, the supplementary dose of assistance may have to be provided to about 25% of those who were assisted. About 7.10 lakh families (including 0.85 lakh SC families and 1.78 lakh ST families) were assisted under IRDP during the Sixth Plan. It is estimated that the number of families requiring supplementary dose of assistance may be about 1.77 lakhs. The exact figure of course can be arrived at only after the detailed case to case survey is completed. The question of eligibility in terms of regular repayment of instalment, proper maintainance of assets etc. will also be relevant in selecting the old beneficiaries for the second doze of assistance.

2.1.4.5. The second part of the strategy would be to take up new beneficiaries. After providing for the supplementary dose of assistance to the eligible old beneficiaries it would be possible, within the given financial outlay, to cover about 3.08 lakh new families during the Seventh Plan. This is based on the assumption that as against investment of about Rs. 3000 per family towards the end of the Sixth Plan, the investment per new beneficiary family for package of assets/activities should be at least Rs. 6000 so that it is able to get a return from the assets as would enable the family to cross the poverty line in one go. Thus during the Seventh Plan the average per beneficiary family subsidy would be Rs. 2000 which will enable the beneficiary family to get a credit of Rs. 4000 from financial institutions.

2.1.4.6. During the Seventh Plan, rural women would be treated as part of the target group for the IRDP and would be identified and assisted to a significantly larger extent. The DRDAs would identify economic activities preferred by the rural women, and provide them necessary support for undertaking such activities. It is proposed to pay special attention to the rural women by covering atleast 30% of the IRD beneficiaries from such families of identified group as are headed by women.

2.1.4.7. There was a uniform target of assisting 3000 families per Block with a uniform outlay of Rs. 35 lakhs per Block for the Sixth Plan period. This uniform approach cannot be continued during the Seventh Plan because the incidence of poverty is not distributed uniformly over the blocks.

2.1.4.8. The Planning Commission has indicated that during the Seventh Plan the allocations under IRDP would be on the basis of selectivity based on poverty incidence rather than on a uniform basis. As the information regarding incidence of poverty based on the report of the NSSO survey of 1983 is not available at this stage, it has been decided that for the first two years of the Seventh Plan 50% of the funds would be allocated to states on the basis of selectivity (incidence of poverty as per NSSO survey of 1977-78) and 50% on a uniform basis per Block. In the last three years of the Seventh Plan the whole amount would be allocated to the state on the basis of selectivity, that is, according to the population below the poverty line (incidence of poverty as per NSSO survey of 1983). Further, the formula indicated above for the first two years would be used for determining the outlays for the state level and below that level it has been decided to have a uniform allocation per Block since disaggregated data on the incidence of poverty is not available.

2.1.4.9. The spirit of Antyodaya concept could be fully recaptured under IRDP provided in selection of beneficiaries emphasis is laid on the lowest strata of the poor. To ensure proper selection of the beneficiaries and to create a better climate of awareness of beneficiaries it is proposed to demistify the whole process of identification of families and implementation by involving village panchayats, voluntary agencies, Banks etc.

2.1.4.10. The poverty alleviation and rural employment programmes should be oriented to the kind of development that would shift sizeable part of the rural population to secondary and tertiary sectors. TRYSEM aims to impart new skills or upgrading the existing skills of the rural unemployed youths. TRYSEM has been found useful in training rural youths and hence it is proposed to be continued in the Seventh Plan as an integral part of IRDP. The proper co-ordination of the training efforts is envisaged through the establishment of composite Rural Training and Technology Centres. This is under consideration of Government of India and the guidelines are awaited.

2.1.4.11. Giving of productive assets to the rural poor is not enough. Necessary back-up services and inputs shall have to be provided and forward and backward linkages established to ensure that the assets generate incremental income to the beneficiaries. The linkages with infrastructure and institutions that can provide back-up support will be strengthened. Special attention would be given to the rural artisans and craftsman and would be provided adequate support in procuring raw material, credit, technological improvements and innovations and marketing of products. The existing marketing and other organisations would extend their support in procuring raw materials and marketing of products.

2.1.4.12. The Special Programme Organisational set up at State district and block level will not only be maintained; but also suitably strengthened during the Seventh Plan.

Antipoverty programmes are to be continued with better planning and closer monitoring. A new system of concurrent evaluation is being introduced to have a closer monitoring of the programme which will give timely feed back on the scheme implementation. Such timely feed-back will identify the strength and weakness of the programme enabling timely corrective measures.

2.1.4.13. For the Seventh Plan an outlay of Rs. 5284.00 lakhs has been proposed as state share for IRDP. It is tentatively targetted to assist 1.77 lakh old beneficiary families and 3.08 lakh new families during the Seventh Plan.

Development of Women of Children in Rural Areas (DWCRA)

2.1.4.14. The scheme of DWCRA was introduced during the Sixth Plan (1983-84) and is being implemented with State Govt., Government of India and UNICEF participation. Women participation in rural development programmes will be augmented by developing proper skills so that they can contribute to economic activities. This is sought to be achieved among other means through the scheme of DWCRA in selected districts/blocks. The scheme aims at identifying the productive areas in which women in a group can involve themselves on the basis of locally feasible technologies. In Gujarat, the scheme has been under implementation in Ahmedabad and Junagadh districts with the help of certain voluntary agencies. The scheme is proposed to be continued during the Seventh Plan with an outlay of Rs. 40.00 lakhs as State share.

National Rural Employment Programme (NREP) and Rural Landless Employment Guarantee Programme (RLEGP).

2.1.4.15. Landless labourers are the most under privileged and malnourished sections of the rural population and they face a compounded problem of unemploy-

ment or under-employment, low and uncertain income and nutritional deficiencies. Seasonal fluctuations hit them very hard. For providing gainful employment opportunities to such unemployed and underemployed persons in rural areas particularly in slack agricultural season, centrally sponsored (50:50 basis) scheme of NREP and fully funded central scheme of RLEGP will have to be continued and implemented during the Seventh Plan.

2.1.4.16. Special Employment Schemes form a crucial part of the package of poverty alleviation programmes. In pursuance of approach laid down by the Planning Commission, the State Government would implement NREP and RLEGP on a more systematic basis.

2.1.4.17. Among the important gains, NREP has helped in ensuring payment of minimum wages to the rural worker and thereby increase their income. It has provided the rural work-force with some bargaining power, and it has enabled them to get foodgrains at comparatively cheaper rates. It has been helpful in arresting the exodus of rural population to urban areas. It has also checked the migration of tribal population. The programme has augmented rural infrastructure facilities. The strategy behind this programme being sound, this programme will be continued in Seventh Plan with greater vigour.

2.1.4.18. An outlay of Rs. 3700.00 lakhs has been proposed towards State share for NREP and it is targeted to generate additional employment opportunities under NREP for about 231.25 lakh mandays. RLEGP being entirely centrally sponsored scheme no outlay is proposed in the State sector. For RLEGP an outlay of Rs. 3700.00 lakhs is expected to be provided by Central Government during the Seventh Plan period. This outlay is expected to generate additional employment of about 231.25 lakh mandays during the Seventh Plan. The mandays for NREP and RLEGP have been worked out on the basis of Rs. 16.00 as daily average wage rate and 50:50 as ratio of wage component and material component.

Drought Prone Area Programme/Desert Development Programme.

2.1.4.19. In a country like India which has experienced famine and drought for centuries a main plank of rural development should be drought mitigation. The DPAP/DDP area of Gujarat is spread over 52 talukas. Various studies indicate that DPAP areas are some of the most backward talukas in the State in terms of the index of development. These areas are more vulnerable to ecological degradation leading to increasing economic dependence and social deprivation. Unplanned and over exploitation of natural resources and neglect of conservation measures are responsible for imbalance in the ecology of this area. Coupled with the natural factors, this imbalance has risen because of factors like denudation of forest and tree growth over grazing of pasture, crop farming on marginal lands resulting in surface runoff of rainwater and soil erosion. The solution to this situation lies in the restoration of ecological balance between the water and the soil, plant and animal population. This would indicate the need for bringing out appropriate land use pattern which will be conducive to obtain the necessary ecological balance.

2.1.4.20. The strategy underlying the present approach in DPAP/DDP includes appropriate land use and development of pasture and tree crop, shelter belt, afforestation of westland and improvement of pasture and farm forestry, diversification of occupational pattern, cattle and sheep rearing, establishment of fodder farms, providing facilities and infrastructure for cross breeding and animal health cover, construction of percolation tanks and land treatment on water-shed basis. This--strategy has been designed to achieve the following basic objectives:

- reducing the severity of impact of drought,
- stabilising the income particularly of weaker sections of the society.

—restoration of ecological balance

2.1.4.21. One of the major shifts in policy has been to take up land development works only on watershed basis because treatment of land in a haphazard way was found to be counter productive and land treatment alongwith intergration of dry farming practices on watershed basis alone is found to be yielding the desired result. The approach to land development in DPAP/DDP areas will therefore continue to be on watershed approach.

Drought Prone Area Programme

2.1.4.22. The main objective of these programmes is integrated development of the drought prone and desert prone areas. It aims at providing the optimum utilisation of land, water and livestock resources, stablisation of the income of weaker sections of the society and minimisation of the impact of drought on agricultural production and the income of rural poor.

2.1.4.23. In the light of these objectives, development of the Drought Prone Area Programme will consist of the following major components.

- Treatment of land on watershed basis and proper land use, for soil and moisture conservation and water harvesting.
- Extension of the vegetative cover by afforestation and improvement of pasture
- Efficient optimum use of water by improving efficiency of delivery of existing irrigation systems and creating new irrigation potential including percolation tanks.
- Scientific dry farming practices to be transferred to farmers through existing extension services.
- Live stock development.
- To broaden resource base and infrastructure which would directly stimulate providing of assets and its efficient use by target group living below poverty line.

2.1.4.24. In order to achieve the objectives, special emphasis has been laid on planning, co-ordination and implementation of integrated area approach to have desired impact and thrust in area. Further it is proposed to strengthen administrative machinery at State and district levels.

2.1.4.25. The programme was in operation in 42 Talukas during the Sixth Plan. Lodhika taluka of Rajkot district has been included under DPAP from 1985-86. Thus the programme will be implemented in 43 talukas of the State during the Seventh Plan. An outlay of Rs. 1575.00 lakhs has been proposed as state share for the Seventh Plan against which equal central share is anticipated from Government of India. Programmewise allocations of the State share are proposed as under.

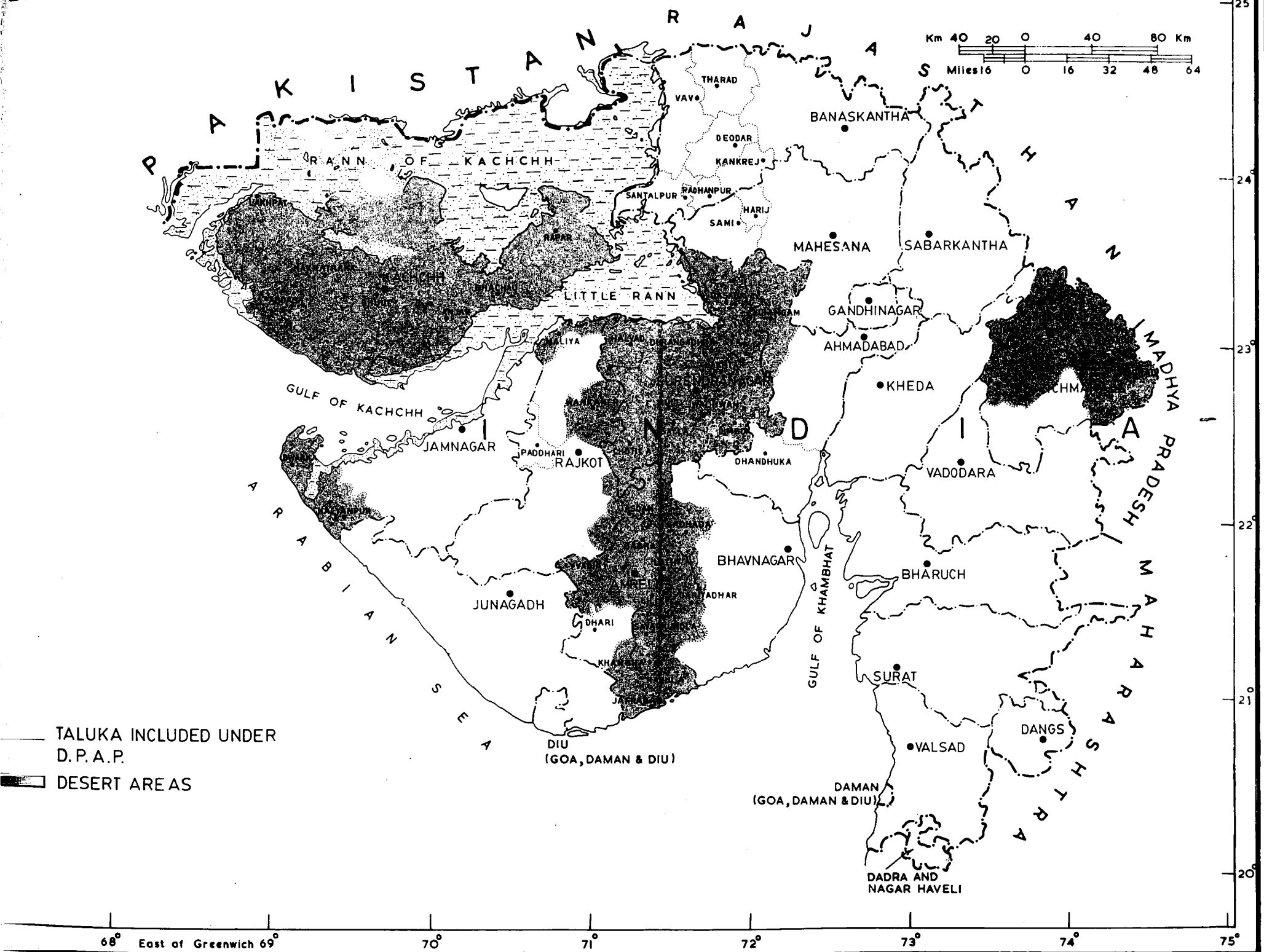
Programme	Proposed outlay
	Seventh Plan 1985-90
1	2
Minor Irrigation	315.00
Afforestation and Pasture Development	315.00

GUJARAT

DROUGHT PRONE AREAS PROGRAMME

BOUNDARIES:
INTERNATIONAL
STATE / UNION TERRITORY
DISTRICT
TALUKA

Km 40 20 0 40 80 Km
Miles 16 0 16 32 48 64



MAP OF INDIA WITH THE PERMISSION OF THE
GOVERNMENT OF INDIA
THE WATERS OF INDIA EXTEND INTO THE SEA TO A DISTANCE OF TWELVE NAUTICAL MILES
FROM THE APPROPRIATE BASE LINE.
THE CORRECTNESS OF INTERNAL DETAILS RESTS WITH THE PUBLISHER.

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1	2
Soil and Water Conservation	395.00
Animal Husbandary and Dairy Development	235.00
Agriculture	30.00
O and M and Un Committed	285.00
Total	1575.00

2.1.4.26. The physical targets proposed for important items under the programme are given below.

Item 1	Unit 2	Seventh Plan Target. 3
Irrigation potential to be created.	'000 Hect.	4.18
Soil conservation works	"	26.20
Afforestation plantation	"	24.75

Desert Development Programme

2.1.4.27. The DDP was being implemented in 8 talukas during the Sixth Plan. Dhanera taluka of Banaskantha district has been included under the programme from 1985-86. Thus from 1985-86 the programme is proposed to be implemented in 9 talukas covering an area of 9.84 lakh sq. Kms. The programme is being implemented as a centrally sponsored scheme on 50:50 basis for the Seventh Plan an outlay of Rs. 256.00 lakhs has been proposed as State share. Allocation of Rs. 512 lakhs comprising State and Central share for the programme during the Seventh Plan is at the rate of Rs. 10.00 lakhs per 1000 sq. Kms. per annum

2.1.4.28. Keeping in view the objectives for the programme, it is proposed to take up minor irrigation, soil and water conservation, afforestation and pasture development, fodder development, Animal husbandry during the Seventh plan.

2.1.4.29. The physical targets proposed for important items are given below :

Item 1	Unit 2	Seventh Plan 1985—90 Target 3
Tubewell to be drilled.	No.	5
Percolation tanks to be constructed.	No.	75
Afforestation and pasture development and plantation.	'000 Hect.	5.80
Soil conservation works.	"	8.40

Strengthening and Supporting of Special Programmes Organisation

2.1.4.30. Better planning and implementation, closer monitoring and concurrent evaluation will be necessary to achieve the desired results out of poverty alleviation programmes. During the Sixth Plan a Commissionerate of Rural Development was created at the state level for planning, monitoring, directing, guiding and supervising rural development programmes. A monitoring cell was also created at the State level in the commissionerate during the Sixth Plan with 50% central assistance. Moreover for effective implementation of rural development programmes the Block level organisation was also strengthened during the Sixth Plan with 50% central assistance. Government of India has informed that 50% Central assistance will be continued during the Seventh Plan as in the Sixth Plan. Therefore state's matching share has been proposed under this scheme. The Seventh Plan approach for the rural development programmes states that the administrative set-up at block, district and state level should be streamlined and strengthened wherever necessary. A High Level Committee has been appointed by the Planning Commission to review the existing administrative arrangements for implementation of rural development programmes within the given plan ceiling an outlay of Rs. 80.00 lakhs has been proposed for the Seventh Plan for maintenance and strengthening of organisation for implementation of rural development programmes. The proposed outlay being inadequate shall be enhanced through the mechanism of Annual Plan.

Strengthening of Training Facilities for Rural Development.

2.1.4.31. With the launching of IRDP, NREP and other special programmes, the need for training of development personnel at various levels such as Project Directors and Assistant Project Officers of DRDAs, BDOs, EOs and VLWS and officials of Banks has become imperative. Besides, the officials of other development departments particularly at State and below the district levels require to be oriented in the concept and approach of the new strategies with a view to impart them appreciation and bringing about co-ordination in the implementation of the programmes. Also the functionaries of voluntary organisation and non-officials will have to be oriented to the current strategies as they have a major role to play in the promotion of people participation in the programmes. Thus the task of training is stupendous calling for concerted and urgent action.

2.1.4.32. The training strategy would include not only recasting the contents of the existing training programmes for induction job courses for the new incumbants but also organising special induction courses, seminars and workshops on the new programmes for the personnel who are already on the job.

2.1.4.33. The type of programmes proposed for various categories of functionaries already on job are:

- Special course on Rural Development/Rural Development Management for District Development Officer, Directors and APOs of DRDA, BDOs, Extension officers, VLWS. These will be in the form of orientation and skill development programmes with emphasis on for APO, BDO and Extension officers and VLWs.
- General orientation courses on Rural Development for Officials and non-officials directly/indirectly or partly associated with rural Development Programme at the State, District, Block and village levels.
- Functional courses on aspects relating to IRDP, NREP, TRYSEM such as project formulation, implementation, monitoring and evaluation, block planning, financial management, rural industrialisation etc.

—Workshops/seminars with the participation of officials, non-officials, representatives of banks and voluntary organisations.

2.1.4.34. The existing training institutions in the State, with their limited resources will not be able to cope up with this huge task. Therefore these institutions will have to be further strengthened and some more training centres will have to be opened. It is therefore proposed as follows.

—Sardar Patel Institute of Public Administration, Ahmedabad is declared as the Apex training institute to the State with three regional centres under the over all charge of this institute.

—The State Institute of Rural Development, Junagadh is proposed to function as a regional centre.

—As per Government of India's recommendations one extension training centre per 40 blocks is proposed to be opened to look after the training of Gram Sevaks, Gramsevikas, Extension Officers, Talati cum-Mantris, Secretaries of Co-operative etc. Hence Extension Training centres are proposed to be opened in the State. In order to achieve this objective, a new scheme namely 'a scheme for strengthening training facilities for Rural Development' with an outlay of Rs. 10.00 lakhs is proposed in the Seventh Plan as a new State plan scheme. Some contribution is expected to come from E.E.C. The proposed outlay include provision for strengthening the Apex Institute at the State level and for setting up/strengthening the Extension Training Centres, including the regional training centres.

Project Linkage

2.1.4.35. The scheme of Project Linkage introduced during the Sixth Plan was concerned to provide linkage between the industrial requirement of labour and rural areas' requirement of employment outside the agriculture sector. The Project Linkage was, therefore, initiated in Vapi (Valsad district) and Ankleshwar (Bharuch district). On reconsideration at the end of the Sixth Plan the State Government has decided to discontinue this scheme during the Seventh Plan except to meet with the spill over liability.

Integrated Village Environmental Improvement Programme

2.1.4.36. The scheme of Gram Safai Shibir, Improvement of Rural Houses, Abhinav Gram Nirman Karyakram and Environmental Improvement of Harijan Localities were in operation during the Sixth Five Year Plan, primarily intended for providing basic amenities and reducing the attraction of the rural people towards the urban areas so as to diminish the magnitude of migration towards urban areas.

2.1.4.37. However, the components of the various schemes were found being overlapped in nature and some of the components of the schemes were being found not adequately attended too. Further the ceiling limit of the financial assistance needed to be enhanced due to increase in actual cost and to make available the benefits of the scheme to the most needy families. Thus the components of the various schemes—Gram Safai Shibir, Abhinav Gram Nirman Karyakram, Improvement of Rural Houses, Environmental Improvement of Harijan localities have been suitably integrated in the form of New scheme named as "Integrated Village Environmental Improvement Programme"

2.1.4.38. The Scheme envisages to cover community type of activities as well as individual beneficiary oriented activities aimed at removing the backwardness of the area, providing healthy and hygienic environment and primary basic amenities for

targetted group viz. families having yearly income less than or equal to Rs. 6000/- per annum with the following norms of assistance:

Sr.No.	Family Income	Norms of Assistance.
1.	Family income upto Rs. 3600/-.	75%
2.	Family income upto Rs. 4800/-	60%
3.	Family income from Rs. 4800/- to Rs. 6000/-	50%
4.	Family income above Rs. 6000/-	Nil.

} of actual cost
} limited to the
} amount of assistance
} fixed for each items.

2.1.4.39. It is proposed that following community works/individual works be allowed to be taken under this scheme with the norms of assistance suggested against the activities.

Sr.No.	Item	Proposed Norms of Assistance
COMMUNITY WORKS		
1.	Public latrines including latrines for women.	Rs. 8000 Maximum.
2.	Stone paving (with open drainage facilities) in Harijan basti.	Availability of Amount of Assistance depends upon the pattern of assistance proposed to be adopted for respective taluka.
above assistance would be subject to the people's contribution being 10% of the actual cost for commenity type of works.		
INDIVIDUAL WORKS.		
1.	Latrines (Water closed)	Rs. 500 Max.
2.	Latrines (Kachha)	Rs. 160 Max.
3.	Chokadi/Bathrooms	Rs. 275 Max.
4.	Sockage pits	Rs. 45 Max.
5.	Paniyara	Rs. 120 Max.
6.	Ventilators	Rs. 75 Max.
7.	Nirdhum Chulahs	Rs. 125 Max.
8.	Improvement of Kachha roof	Rs.1000 Max.
9.	Initial Electrification	Rs. 200 Max.
10.	Providing doors for huts/houses having no doors	Rs. 200 Max.

2.1.4.40. The scheme contemplates to select cluster of villages having population ranging 3000 to 5000 with varying ceiling depending upon the size of the population. Further it is also proposed to spent on the various components in the following way.

(1) Family oriented works	50% of outlay
(2) Women Latrines works	10% of outlay
(3) Community works	38% of outlay
(4) Gram Safai Shibirs (Activities)	2% of outlay (According to proposal)

The detailed talukawise norms of assistance proposed to be provided is as follows.

(A) Taluka having One (1.00)

C.P.A. Unit : Rs. 20,000 for each taluka.

(1) Gram Safai shibirs contingency Expenditure	Rs. 250
(2) Cultural Works	
(a) Women latrines	Rs. 12000 (Minimum Five)
(b) Stone paving in Harijan basti	Rs. 750
(3) Individual Assistance Works	Rs. 5000/
Total..	Rs. 20,000

(B) Taluka having 1.50 C.P.A. unit Rs. 30,000 for each talukas.

(1) Gram Safai Shibirs	Rs. 250/—
(2) Community Works.	
(a) Women latrines	Rs. 15000/— (Minimum Seven)
(b) Stone paving in Harijan basti.	Rs. 5000/—
(3) Individual Programme.	Rs. 9750/—
Total..	Rs. 30,000/—

(C) Taluka having 2.00 C.P.A. Units Rs. 40,000/— for each taluka.

(1) Gram Safai Shibirs.	Rs. 250
(2) Community Works.	
(a) Women latrines.	Rs. 20000/— (Minimum Ten)

(b)	Stone paving in Harijan basti.	Rs. 5000
(3)	Individual programme.	Rs. 14750
	Total..	Rs. 40,000

(D) Taluka having 2.50 C.P.A. Units Rs. 50,000 for each taluka.

(1)	Gram Safai Shibirs.	Rs. 250
(2)	<i>Community Works.</i>	
(a)	Women latrines.	Rs. 20,000/- (Minimum Ten)
(b)	Stone paving in Harijan basti.	Rs. 5,750/-
(3)	Individual Programme (Works)	Rs. 24,000/-
	Total..	Rs. 50,000/-

(E) Taluka having 3.00 C.P.A. Units Rs. 60,000 for each taluka.

(1)	Gram Safai Sibirs.	Rs. 250/-
(2)	<i>Community Works.</i>	
(a)	Women latrines.	Rs. 30,000/- (Minimum Fifteen)
(b)	Stone paving in Harijan basti.	Rs. 5,750/-
(3)	Individual Programme.	Rs. 24,000/-
	Total..	Rs. 60,000/-

2.1.4.41. An outlay of Rs. 44.00 lakhs proposed for 1985-90 which will be enhanced through the mechanism of Annual Plans.

STATEMENT

Schemewise Outlays for Seventh Five Year Plan 1985-90.

(Rs. in lakhs).

Sr. No.	No. and Name of the Scheme	Outlay for Seventh Plan
1	2	3
1	RDD-1 Integrated Rural Development Programme.	5284.00
2	RDD-2 Scheme for strengthening and supporting special Programme Organisation*	80.00
3	RDD-3 Development of Women and Children in Rural Areas.	40.00
4	RDD-4 Project Linkage.	35.00
5	RDD-5 National Rural Employment Programme	3700.00
6	RDD-6 Drought Prone Areas Programme.	
	(i) Minor Irrigation	315.00
	(ii) Afforestation and Pasture Development.	315.00
	(iii) Soil and Water Conservation	395.00
	(iv) Animal Husbandry and Dairy Development.	235.00
	(v) Agriculture	30.00
	(vi) O & M and uncommitted	285.00
	Total..	1575.00

1	2	3
7	RDD-7 Desert Development Programme	256.00
8	RDD-8 Strengthening Training Facilities for R. D.	10.00
9	RDD-9 Regional Rural Bank.	11.00
	Total R.D.	10991.00
10	RDD-10 Integrated Village Environmental Improvement Programme (IVEIP)*	44.00
	Total :—	11035.00

* The outlay will be enhanced through the mechanism of Annual Plans.

2.2 COMMUNITY DEVELOPMENT AND PANCHAYATS

2.2.1 Introduction

2.2.1.1. The Community Development programme which ushered in a new era of people's participation in rural development grew into the Panchayati Raj system aimed at ensuring people's participation in a more meaningful manner through elected representatives at all levels of panchayats. The three tier system of the panchayat setup came into existence on 1st April, 1963 in Gujarat State. The panchayat set up has since grown into a vast organisation entrusted with the responsibility of implementing with a major share of state's development programmes. Resources and manpower have been transferred to the Panchayats in sectors like Agriculture, Animal Husbandry, Health etc. The panchayat agencies provide the support needed for implementation of anti-poverty programmes. During the Seventh Plan, Panchayat involvement in the anti-poverty programme is proposed to be made more and more effective and positive.

2.2.1.2. An outlay of Rs. 4.85 crores for the Seventh Plan is provided, the broad break-up of which is as under :

(Rs. in Crores)

Programme	Outlay proposed for Seventh Plan (1985-90)
Community Development and panchayats	1.48
Strengthening of the infrastructure of Nagar Panchayat (New programmes)	3.37
Total	4.85

Planning Cell for District Plan

2.2.1.3. The Planning Cell, created during earlier plan period and continued in the Sixth Plan would be strengthened on the Seventh Plan for ensuring formulation, guidance and reviewing the progress of the plan schemes. An outlay of Rs. 2.20 lakhs for the Seventh Plan is provided.

Training, Education and Research

2.2.1.4. For improving the Panchayati Raj administration, the Institute of Rural Development, Junagadh is imparting training to officials as well as non-officials associated with Panchayati Raj Institutions. Training programmes for office bearers of Taluka/Nagar/Gram Panchayats are also organised under the auspices of Gujarat Pradesh Panchayats Parishad at Gandhinagar. Training courses for Panchayat Secretaries are also conducted at Bardoli. Gandhinagar, Sadara, Samodh, Lunawada, Sanosara and Junagadh. The programme would be continued and suitably strengthened for which an outlay of Rs. 25 lakhs for the Seventh Plan is provided.

Community Development

2.2.1.5. The entire rural area of the State is covered by 250 CPA units of Post Stage-II Community Development Blocks. There is no schematic budget for Post

Stage-II Community Development Blocks. A Scheme of core budget was introduced in the Sixth Plan to provide funds for post stage-II Blocks to maintain the existing level of activities and to enable them to undertake Community Development programmes and local works which are not covered under the sectoral programmes. The scheme would be continued during the entire period of Seventh Plan with a ceiling of Rs. 30,000 per CPA unit. An outlay of Rs. 75 lakhs for the Seventh Plan is provided.

Strengthening of Block Level Agency

2.2.1.6. High Level Committee on Panchayati Raj (Shri Rikhavdas Shah Committee) had recommended creation of the posts of Assistant Taluka Development Officers on population basis. Accordingly 13 posts were created in the first instance. It is proposed to provide such posts in all the remaining talukas in the Seventh Plan. In addition to providing these posts, the present block level agencies are proposed to be strengthened. An outlay of Rs. 45.80 lakhs for the Seventh Plan is provided.

Strengthening the Infrastructure of Nagar Panchayats

2.2.1.7. There are 143 Nagar Panchayats as on 31-3-85 in the State. Nagar Panchayat areas are those villages having population ranging from 10,000 to 25,000. These areas have been often noticed passing through transitional period in development structure. They have urban characteristics like pucca houses, better transport facilities, better schooling, higher literacy rate etc. and also having greater diversification on occupational structure. The nagar panchayat areas are also having higher rate of population growth resulting in increased requirement of basic civic amenities. Financially the Nagar Panchayats are virtually not better placed though they have the advantage of the additional income through octroi.

2.2.1.8. With a view to provide and strengthen the amenities and also to augment the income of the nagar panchayats, a new scheme has been introduced in the Seventh Plan under the scheme assistance would be provided for various facilities like drinking water, Roads, Mandis (Markets) Public health amenities, electrification etc. An outlay of Rs. 337 lakhs is provided in the Seventh Plan for this scheme.

Schemewise outlays for Seventh Five Year Plan—1985—90.**(Rs. in lakhs)**

Sr. No. 1	No. and Name of the Scheme. 2	Outlay 3
Community Development and Panchayat.		
CDP-1	Planning Cell for District Plan.	2.20
CDP-2.	Training Education and Research.	25.00
CDP-3	Community Development (core budget)	75.00
CDP-4	Strengthening of Block level Agency.	45.80
CDP-5	Strengthening of the infrastructure of Nagar Panchayats.	337.00
Total :		485.00

2.3. LAND REFORMS

2.3.1. Introduction

2.3.1.1. Gujarat has been consistently following the policy of elimination of exploitation and achieving social justice. The State has been in the forefront in taking a number of progressive measures such as the tenancy and tenure abolition laws. The first Gujrat Agricultural Land Ceiling Act was enacted in the State in 1960.

2.3.2. Review of Progress

2.3.2.1. About 18005 hectares of surplus land has been taken over under the Gujarat Agricultural Land Ceiling Act of 1960. Out of this 18005 hectares of surplus land, 17766 hectares have been distributed to 14741 beneficiaries. Out of this 17766 hectares of distributed land, 10230 hectares of land have been distributed to the scheduled caste and scheduled tribe beneficiaries.

2.3.2.2. Twenty nine Agricultural Land Tribunals have been appointed to complete distribution of surplus land to beneficiaries. The State Government have issued orders on 1st September, 1980 and on 22nd June, 1981 for finalising all the pending cases including the revision appeals under the Ceiling Act and cases of appeals regarding lands held by gaushalas, Panjarapoles, etc. Most of the surplus land is poor in quality and requires development. A scheme envisaging an assistance of Rs. 2,500 per hectare for land development and inputs is already under implementation. The progress achieved upto the end of March, 1985, in implementation of the Gujarat Agricultural Land Ceiling Act is shown in the table below :

Item	Pre-revised Ceiling Act-Achievement Upto March, 1985	Revised Ceiling Act Achievement upto March, 1985	Total under Pre-revised Act & Revised Act (2+3)
Area declared surplus	18598 Hec.	74174 Hec.	92772 Hec.
Possession taken of	18005 Hec.	35603 Hec.	53608 Hec
Allotment on permanent basis to-			
—Scheduled Tribes	7,777 Hec. (9937 No.)	2579 Hec. 1143 No.	10356 Hec. 11080 No.)
—Scheduled Castes	2453 Hec. (1497 No.)	17690 Hec. 6002 No.	20143 Hec. 7499 No.)
—Co-operative Societies and other Backward Classes	7536 Hec. (3307 No.)	615 Hec. 391 No.	8151 Hec. 3698 No.)
	17766 Hec.	20884 Hec.	38650 Hec.
Total	(14741 No.)	7536 No.	22277 No.)

Twenty Point Programme

2.3.2.3. The new Twenty Point Programme for economic and social development was announced in January, 1982. The programme takes into account the changes that have taken place in economic and social life of the people and the new challenges that have arisen.

2.3.2.4. Land Reforms is one of the items of the 20 Point Programme. The aim of the programme would be to implement the Agricultural Land Ceiling Act, organise distribution of surplus lands and complete compilation of land records by removing all legal and administrative obstacles.

2.3.2.5. The revised Ceiling Act which lowered the ceiling on holdings came into force from April, 1976. Until March, 1985, about 74174 hectares of land has been declared surplus, possession of 35603 hectares of land has been taken and 20884 hectares allotted to 7536 beneficiaries. In the districts affected by Narmada Project, distribution of 7433 hectares of land is made on Eksali basis.

2.3.2.6. The work of implementation of the pre-revised Ceiling Act is practically over except for cases under litigation.

2.3.2.7. In order to protect the rights of tenants who are in arrears of payment of purchase price, a scheme of giving financial assistance for acquisition of occupancy rights has been introduced during the Fifth Plan. Occupancy rights have been conferred to 12.16 lakh tenants in respect of an area of 10.00 lakh hectares so far. Defaulting tenants who could not pay the purchase price and have fallen in arrears of four or more instalments have been given, a further opportunity to pay up the purchase price before 31st December, 1985. During 1980-85, Government have also sanctioned an amount of Rs. 107.57 lakhs as tagavi loans to 9028 tenant cultivators to save their purchases from becoming ineffective for default in payment of purchase price. A programme has been formulated to make payment of purchase price before the extended time limit of 31st December, 1985 and all the Collectors have been asked to prepare case papers of defaulting tenants in arrears of three or four instalments for grant of tagavi advances well in advance to make payment towards purchase price.

2.3.2.8. Like-wise under the Bombay Inam (Kachchh Area) Abolition Act 1958, certain holders of Inam lands have not paid occupancy price as required under section 6 and 7 of the said Act. The date of payment of the occupancy price was last extended upto 31st December, 1985. In order to protect such khatedars from losing their rights over the land, the Government has sanctioned tagavi loan to the extent of Rs. 2.06 lakhs to 829 khatedars till March, 1984.

2.3.2.9. Under the Bombay Tenancy and Agricultural Land Act, 1948, occupancy rights are given to tenants on payment of purchase price of the land. The Gujarat State Co-operative Land Development Bank advanced loans to such tenant purchasers. As the rate of interest on loan charged by the bank is higher than the rate of interest charged by the Government, a scheme to subsidise the difference in rate of interest is introduced since 1976-77. From August, 1976 to March, 1985. Rs. 2.13 lakhs have been disbursed to 3235 persons under this scheme.

2.3.2.10. In order to discover concealed tenants and to update the record of rights and to ensure that position as on field tallies with the position as per record, a scheme for updating the record of rights has been introduced from the Fourth Plan. Upto March, 1985, the work was completed in 12965 villages in the first round and 15936 villages in the second round. This is inclusive of 6172 villages in Saurashtra area and 948 villages in Kachchh and 7566 tribal villages in the first

round. During 1985-86 the work is likely to be completed in 3240 villages (including 720 villages in tribal area).

2.3.2.11. Section 17-B of the Bombay Tenancy and Agricultural Land Act, 1948 as amended by Act No. 5 of 1973 confers occupancy rights on dwellers *i. e.*, tenants, agricultural labourers, artisans etc. on payment of occupancy price not exceeding 20 times the annual rent for the site on which dwelling houses are built by them. Accordingly, from 2nd May, 1973 every tenant, agricultural labourer, and village artisan is deemed to have purchased the home-stead land. Under this scheme, 31920 cases have been brought on record from 2nd May, 1973 to 31st March, 1985, out of which 31505 cases have been decided by the Agricultural Land Tribunals and conferred occupancy rights to 26493 persons in respect of 943.70 hectares of home-stead lands. The process of conferring the occupancy rights to the poor artisans, agricultural labourers etc. is nearly completed.

2.3.2.12. The occupancies held by the tribals in scheduled areas have been restricted under Section 73-A of Land Revenue Code, 1879 and Government Notification dated 6th April, 1961. Instructions were issued to the District Revenue Officers to enforce this provision strictly and to restore possession of land to those tribals who have alienated their lands unauthorisedly. Accordingly, teams appointed for tribal areas have been able to detect in all 18129 conductable cases of unauthorised transfer of land covering 21698 hectares and have restored the possession in 14530 cases covering 16837 hectares of land by the end of March, 1985.

2.3.2.13. In addition, a law has been enacted by insertion of sections 73-AA, 73-AB, 73-AC, 73-AD in the Bombay Land Revenue Code for safeguarding the rights/interests of the occupancies held by scheduled tribe persons all over the State with a view to making the same inalienable. This law has come into force with effect from 1st February, 1981.

2.3.3. Programmes for the Seventh Plan 1985-90

2.3.3.1. An outlay of Rs. 910 lakhs for the Seventh Plan 1985-90 is provided. The broad breakup is as under :

Item	(Rs. in lakhs)
Item	Seventh Plan outlay 1985-90
Financial assistance to allottees of surplus land	150.00
Other schemes	760.00
Total	910.00

2.3.3.2. The programmes relating to the consolidation of holdings, record of rights, survey and revision survey would be accelerated. The major elements of the programme would be the implementation of the Agricultural Land Ceiling Act and the provision of financial assistance to the allottees of surplus land.

Consolidation of Holdings

2.3.3.3. The scheme of consolidation of holdings contemplates making the operational holdings compact thereby providing for optimum result of the labour and money spent by cultivators.

2.3.3.4. This scheme is designed to-(a) curb the evil of fragmentation of holdings (b) consolidation of scattered holdings into a compact block, (c) effect economy in labour and cost of agriculture and (d) induce cultivators to take new improvement. The scheme was commenced in 1949 on experimental basis under "Post-war Reconstruction Schemes" and the regular scheme was commenced in the First Five Year Plan and continued in the subsequent plans.

2.3.3.5. The work of consolidation of holdings has to be undertaken in 14715 villages covering 7208 thousand hectares in the State. The State Government have declared its intention to prepare the scheme of consolidation of holdings in 7126 villages. The scheme had been implemented in 3220 villages covering 1425 thousand hectares upto the end of the year 1979-80. During the Sixth Plan 1980-85, the work of 738 villages covering 811 thousand hectares as against the target of 900 villages covering 450 thousand hectares is completed.

2.3.3.6. The scheme of consolidation of holdings carries much importance and it is also a part of the national programme. It is, therefore, proposed that the scheme of consolidation of holdings may be continued during the Seventh Five Year Plan with the physical target of 900 villages covering 450 thousand hectares and an outlay of Rs. 160 lakhs is provided for the Seventh Plan period 1985-90.

Introduction of Resurvey and Revision Survey of the Villages of the State

2.3.3.7. Revision survey is generally required to be undertaken every 30 years. Original survey of certain villages of the State was undertaken some 80 to 90 years ago and no revision or resurvey has been undertaken in those areas. The need for resurvey is, therefore, keenly felt. These operations will help to bring the land records upto date. The scheme is commenced since the Fifth Five Year Plan. The work of tribal area villages is also done under this scheme.

2.3.3.8. The work in 1114 villages had been completed by the end of 1979-80. During the Sixth Plan, the work covered 826 villages.

2.3.3.9. The total number of villages of Ex-Bombay regime and deemed settled villages in which the original survey had been done some 80 to 90 years ago is 3380.

2.3.3.10. In view of the position stated above, the scheme is to be continued in the Seventh Plan. An outlay of Rs. 233.55 lakhs is provided to complete the work in 700 villages.

Introduction of Village Site Survey

2.3.3.11 Village site survey activity is taken up under Section 95 read with Section 131/ 135-G of the Land Revenue Code under the following categories:

- The work of village site survey under State Plan scheme.
- Villages situated within the periphery of 5/1 kms. from urban agglomerations.
- Villages situated within the extended areas of Surat Municipal Corporation.
- Village site survey in the villages having population over 5,000 inhabitants,

2.3.3.12 Village site survey is a prerequisite for orderly development of the villages for various development activities both by Government and local bodies. It also provides the record of rights (Property Cards) showing clearly the right title interest and liabilities of all the individuals, local bodies and Govt. on each property. Such survey is also useful for administrative purpose and also for determining N.A. re-

venue, detection of encroachments on Govt. land and public street lands and detection of unauthorised N.A. uses etc. It also provides accurate maps.

2.3.3.13 The work of introduction of village site survey was completed in 102 villages by the end of the year 1979-80. During the Sixth Plan, the work of 472 villages, and enquiry work of 59 villages has been completed by the end of the year 1983-84, as against the target of introduction of village site survey in 382 villages.

2.3.3.14 Out of the 4 sub-schemes mentioned above, the work of sub-scheme No. 3 would not be completed by the end of Sixth Plan and hence it is included in Seventh Plan for the remaining work.

2.3.3.15 Since the village site survey work is yet remained to be done in the remaining villages and as also the work of enquiry into rights, titles, interest in and over the properties and the work of Sanad & P R Card writing has also remained to be done, the scheme is proposed to be continued during the Seventh Plan and a physical target of 250 villages is fixed with the financial outlay of Rs. 181 lakhs.

Re-Classification of the lands of the villages of Jamnagar District.

2.3.3.16 The classification of the lands of the villages of Jamnagar district was done in 1890 during the regime of the Ex-State of Jamnagar and no classification of lands of these villages has been done thereafter. The rates of remission in the assessment fixed during the Ex-State regime have been sanctioned under the provisions of Section 52, Land Revenue Code, and L.R. Rule 18 in the year 1959-60 and the revised agricultural assessment is levied accordingly. Most of the villages of this district are adjoining the sea-coast as a result of which the lands have become saltish. The water of the wells have also become saltish and as such it has adversely affected the fertility of the lands and the agricultural production as well.

2.3.3.17 By the end of Sixth Plan the work of reclassification would be completed in 90 villages and the work of about 277 villages remains to be done by the end of the Sixth Plan.

2.3.3.18 It is, therefore, proposed to include the scheme of re-classification of lands in the village of Jamnagar district in the Seventh Plan to complete the work of 277 targetted villages with an outlay of Rs. 10 lakhs.

Gujarat Survey Training Institute at Gandhinagar

2.3.3.19 The Land Records Department carries out survey and classification operations, measurement of lands, fixation of agricultural assesment, measurement for introduction of village site survey, city survey and survey for acquisitn of lands for public purposes and the work of updating and maintenance of land records.

2.3.3.20 After formation of the State, development activities have acquired great momentum and accordingly various schemes are being implemented through the Land Records Department, and as such there has been considerable increase in the establishment of officers and subordinate staff. Moreover during the Sixth Plan, the scheme for introduction of village site survey of the villages having population of over 5,000 inhabitants has commenced from 1980-81 and huge staff is recruited to implement these schemes. Similarly trained personnel are also required for the Public Works Department, Irrigation Department, Narmada and various big irrigation projects, public organisations like municipalities-G.I.D.C., G.E.B., Town Planning Department etc. for land acquisition work. These departments and public organisations often seek trained personnel in survey and allied fields.

2.3.3.21 In view of the above, it is necessary to employ and train personnel to cope with the requirements. In the near future, there will be a great demand of experienced trained personnel. To overcome the difficulty, it is necessary to impart pre & post recruitment training. It is proposed to impart in-service training to all officers of Department, of Survey & Settlement, training to Mamlatdars, Deputy Collectors, etc. through Gujarat Survey Training Institute.

2.3.3.22 Government has already earmarked 25 acres of land in Sector-14 at Gandhinagar for construction of the building of the proposed Gujarat Survey Training Institute. The plans/estimates of the above Survey Training Institute have been prepared by the Chief Town Planner and Architectural Adviser, Capital Project, Gandhinagar and the Govt. have also accorded administrative approval to the plans and estimates.

Specific Measures for Land Reforms-Record of Rights Scheme

2.3.3.23 In order to discover concealed tenancies and to update the record to ensure that position as in field tallies with the position as on record, a scheme to update the record of rights has been introduced from the Fourth Five Year Plan.

2.3.3.24 Up to the period ending 31-3-'84, 12965 villages have been covered in the first round and 15936 villages in second round. In addition, 5172 villages in Saurashtra area and 948 villages in Kachchh area are covered. However, updating the record of rights cannot be considered complete as with the passage of time it is again likely to lag behind and require to be updated. Moreover in the areas surrounding big cities, unauthorised constructions and other breaches are also required to be detected thoroughly. Record of rights teams have done basic work to the following extent upto 31-3-1985 :

—6172 villages of Saurashtra and 948 villages of Kachchh area.

—145.38 lakh pages of village form No. VII-XII verified.

—1.33 lakh orders of Agricultural Land Tribunals noted.

—0.60 lakh concealed tenants brought on record.

—0.33 lakh cases of breach of conditions discovered.

2.3.3.25 In Gujarat area, the teams have brought 67560 concealed tenants on record and have listed 285221 tenants in the detailed list.

2.3.3.26 The scheme would be continued during the Seventh Plan 1985-90 and an outlay of Rs. 90.00 lakhs is provided to cover 5500 villages.

Specific Measures for Land Reforms-Record of Rights Scheme-Tribal Area Sub-Plan.

2.3.3.27 In tribal areas the teams have done basic work to the following extent upto 31-3-1985.

—The work of 7566 villages have been completed.

—21.97 lakh pages of village form No. VII-XII verified.

—0.29 lakh orders of Agricultural Land Tribunals noted.

—0.01 lakh concealed tenants brought on record.

—Detected 18129 cases covering an area of about 18638 hectares of land regarding unauthorised alienation of land held by tribals.

2.3.3.28. The scheme would be continued in Seventh Plan with an outlay of Rs. 15.00 lakhs with a target to cover 1500 villages.

Protection against Unauthorised Alienation of land held by Tribals-Tribal Area Sub-Plan

2.3.3.29. The scheme for protection against unauthorised alienation of land held by tribals is introduced under Tribal Area Sub-Plan since the year 1976-77 to detect alienation of land held by tribals and to restore the possession of such lands to them. This is a detection scheme. Under the Land Revenue Code, a new Section 73-AA to 73-AD has been introduced from 1-2-1981.

2.3.3.30. Upto 31-3-1985 such alienation is detected in 18129 cases covering an area of 21698 hectares of land out of which 15803 cases covering an area of 18126 hectares of land are disposed off. In 14530 cases, possession is restored to tribals in 16837 hectares of land.

2.3.3.31. The scheme would be continued during the Seventh Plan 1985-90 with an outlay of Rs. 40.00 lakhs to cover all the villages in the State for this purpose.

Grant of Subsidy in interest payable to Tribal tenants-Tribal Area Sub-Plan

2.3.3.32. In the B. T. and A. L. Act 1948, the occupancy rights are given to tenants on payment of purchase price of land. In order to finance the purchase price to economically backward tribal tenants, the Gujarat State Co-operative Land Development Bank advances loan to such tenant purchasers. The rate of interest charged by the said bank is 11-1/2 % which is higher than the rate of interest charged by Government on tagavi loan. A scheme to subsidise the difference of rate in interest is, therefore, introduced as plan scheme since 1976-77.

2.3.3.33. The scheme would be continued during the Seventh Plan 1985-90 with an outlay of Rs. 0.10 lakh.

Financial assistance to the Assignees of Surplus Land under Gujarat Land Ceiling Act, 1960.

2.3.3.34. The new allottees of surplus lands get financial assistance of Rs. 2500/- per hectare for land development and agricultural inputs. The share of Central Government will be 50 percent. The benefit of the scheme is now extended to the allottees of land holders in programme areas also. Generally, the allottees of the surplus land belong to weaker section of the society and they need financial assistance for the purpose of development.

2.3.3.35. By the end of March, 1985 under the Revised Ceiling Act, possession of 35603 hectares of land is taken, out of which 20884 hectares of land is disposed off permanently. The remaining 14719 hectares of land could not be disposed off due to reservation of surplus land for Narmada Irrigation Project for affected persons in five districts viz Vadodara, Bharuch, Surat, Panchmahals and Surendranagar and due to litigation.

2.3.3.36. Thus, about 50206 hectares of surplus land which become available—(1) from the pending cases for disposal, (2) lands under stay if stay order is vacated and (3) cases under litigation will be required to be distributed to S. C./S. T. and other beneficiaries according to the provisions of the Act, as such they will be eligible for financial assistance.

2.3.3.37. Upto March, 1985, financial assistance is given to 6528 S. C., 1627 S. T. and 278 others—totalling to 8943 beneficiaries.

2.3.3.38. The scheme would be continued during the period 1985 to 1990 and about 50206 hectares of surplus land will have to be distributed to S. C./S. T. and others. As such, an outlay of Rs. 150 lakhs is provided as State's share as the financial assistance for the Seventh Plan period.

Loans to Tenant Cultivators for acquiring Occupancy Rights under the B. T. and A. L. Act.

2.3.3.39. Under the B. T. and A. L. Act, the confirmation of occupancy rights are subject to payment of purchase price fixed by the Agricultural Lands Tribunals.

2.3.3.40. The tenant cultivators from the weaker sections of the Society who are not in a position to make payment of the purchase price and also to protect the right of such tenant on lands, who are in arrears of payment of purchase prices, this scheme was introduced during the Fifth Plan for advancing loan to such tenant cultivators and also continued in Sixth Plan.

2.3.3.41. Upto 31-3-1984, an amount of Rs. 142.72 lakhs has been spent by way of advancing loans to 13963 tenant cultivators.

2.3.3.42. The scheme would be continued during the Seventh Plan and an outlay of Rs. 7.50 lakhs is provided towards advancing loan to tenant cultivators.

Financial assistance to Tribal Tenants to acquire Occupancy Rights under the B.T. and A. L. Act, 1948—Tribal Area Sub-Plan

2.3.3.43. The deemed purchaser under the B. T. and A. L. Act, 1948 have to pay the purchase price determined by the ALT under the Act by annual instalments. The interest at 4-1/2 percent is added to the purchase price and annual instalment is fixed accordingly. This is a general scheme for advancing loan to pay the arrears of instalments.

2.3.3.44. A scheme of financial assistance to the tribal tenant purchasers under the Tribal Area Sub-Plan is brought in force with effect from 1-4-1982 to enable them to acquire occupancy rights in respect of land for which purchase rights are conferred under the B. T. and A. L. Act. This helps in raising economic status of the society. Under this scheme, only those tribal tenants who were having less than 8 acres of land and have no other source of family income are covered.

2.3.3.45. During the year 1984-85, subsidy of Rs. 2.99 lakhs is given to 567 tribal tenants. While upto March, 1985, subsidy of Rs. 9.06 lakhs was given to 1811 tribal tenants. It is proposed to continue the scheme during the Seventh Plan. An outlay of Rs. 14.90 lakhs is provided as financial assistance to tribal tenants.

Financial assistance to scheduled caste tenant purchasers to acquire Occupancy Rights under B. T. and A. L. Act, 1948.

2.3.3.46. The deemed purchasers under the B. T. and A. L. Act, 1948 have to pay purchase price determined by the Agricultural Land Tribunals under the Act by annual instalments. The interest of 4-1/2 percent is added to the purchase price and the annual instalments are fixed accordingly. A general scheme for advancing tagavi loan bearing 7-1/2 percent interest is in operation in the State to pay the arrears of instalments.

2.3.3.47. A scheme for financial assistance to the scheduled caste tenant purchasers as a part of the Special Component Plan is brought into force from April, 1982 to enable them to acquire occupancy rights in respect of lands for which purchase rights are conferred under the B. T. and A. L. Act, 1948. This helps in raising economic status of this weaker section of the society. Under this scheme only those S C tenants who are having less than 8 acres of land and have no other source of family income, are covered. Upto March 1985, financial assistance was given to 355 S C tenants. The scheme would be continued in Seventh Plan with an outlay of Rs. 7.50 lakhs.

STATEMENT

Schemewise Outlays for the Seventh Five Year Plan 1985—90

(Rs. in lakhs)

Sr. No.	No. and name of the scheme	Outlay for the Seventh Plan 1985—90
1	2	3
1.	LND—1 Consolidation of Holdings	160.00
2.	LND—2 Resurvey/Revision survey of the villages of the State	233.35
3.	LND—3 Introduction of village site survey	181.00
4.	LND—4 Reclassification of the villages of Jamnagar district	10.00
5.	LND—5 Gujarat Survey Training Institute	0.65
6.	LND—6 Specific measures for Land Reforms—Record of Rights	90.00
7.	LND—7 Specific measure for Land Reforms-Record of Rights (TASP)	15.00
8.	LND—8 Protection against unauthorised alienation of land held by tribals	40.00
9.	LND—9 Grant of subsidy on interest payable by tribal tenants for acquiring occupancy rights	0.10
10.	LND—10 Financial assistance to the assignees of surplus land under Gujarat Land Ceiling Act, 1972	150.00
11.	LND—11 Loans to tenant cultivators for acquiring occupancy rights under B. T. and A. L. Act, 1948.	7.50
12.	LND—12 Subsidy for financial assistance to tribal tenants for payment of purchase price for acquiring occupancy rights under B. T. and A.L. Act, 1948	14.90
13.	LND—13 Subsidy for financial assistance to scheduled caste tenants for payment of purchase price for acquiring occupancy rights under B. T. and A. L. Act, 1948	7.50
TOTAL ..		910.00

3. CO--OPERATION

3.1. Introduction.

3.1.1. The Co-operative movement in Gujarat like in other State began with credit co-operatives in the early part of the 20th century but the last decade has witnessed the diversification on several new fronts like milk producers, organisations, co-operatives of cotton growers, groundnut growers, sugarcane-producers and processing units and organisations engaged in fertilizer production with centrally sponsored IFFCO and now KRIBHCO in the co-operative sector. The number of members in co-operative societies, the number of societies and areas of activity increased many fold. Provision of rural credit supply of agricultural inputs, marketing of agricultural produce, supply of consumer credit, regulation of private money-lending business development of regulated markets, organising milk producers in dairy co-operatives and development of sugar co-operatives, co-operative based procurement of ground-nut, cotton Ginning and Pressing Co-operatives, Powerloom Co-operatives, Labour Contract Co-operatives, Housing Co-operatives, Consumers' Co-operatives, Fishery Co-operatives of Fishermen co-operation, Handloom and Powerloom Weavers' are among the activities that have been brought under the co-operative movement through direct and active participation of primary producers and primary consumers.

3.1.2. Alongwith growth of co-operatives different apex federations like the Cotton Federation, Milk Marketing Federation, the Marketing Federation for Agricultural produce and the Oil-seeds Growers' Federation etc, with modern management techniques and latest technology and resources have thus developed into a well-knit co-operative organisation from primary to the national level.

3.2. Review of progress.

3.2.1. The following tables summarise the development that has taken place in various types of co-operatives in the State ;

TABLE No. 1

Sr. No.	Type of societies	1979—80	1981—82	1983—84 Provisional
1	2	3	4	5
(1)	PACS (including FSS & LAMPS)			
	(a) No. of societies	7684	7473	6779
	(b) Membership (in thousands)	1861	1827	1971
(2)	Sugar factories			
	(a) No. of Societies	15	15	16
	(b) production (in M. T.)	220890	531599	989670
(3)	(A) Oil seeds Gujarat State Co-op. Oil Industry Ltd.			
	(a) Quantity processed (in M. T.)	21555	33214	40389

1	2	3	4	5
	(B) Groundnut Growers' Gujarat State Co-op. Federation Ltd. (Quantity processed in M.T.)	..	....	33082
(4)	Cotton Ginning & Pressing Societies			
	(a) No. of Societies	110	108	109
	(b) Raw Cotton Ginned (in M.T.)	159798	238781	304508
	(c) Cotton processed (in bales)	410211	417454	426728
(5)	Gujarat State Co-op. Marketing Federation Ltd.			
	(a) Sales of agricultural produce (Rs. in Crores)	99.68	127.45	155.38
(6)	Cotton Marketing Federation			
	(a) Sales of cotton (Rs. in crores)	23.01	29.38	32.56
(7)	Milk Marketing Federation			
	(a) Milk purchased (Rs. in crores)	N.A.	161.77	396.90
(8)	All types of Co-op. Societies			
	(a) No. of Societies (in lakhs)	0.30	0.34	0.37
	(b) Membership (in lakhs)	63.73	73.97	83.03

TABLE No, 2

Sr. No.	item	1961	1971	1981	1982	1983
(1)	No. of societies	13959	20312	32229	34377	35786
(2)	Membership (in '000)	2053	4097	6865	7397	N.A.
(3)	Share Capital (Rs. in crores)	24	97	250	267	N.A.
(4)	Owned funds (Rs. in crores)	36	153	570	654	N.A.

3.3 Approach and strategy

3.3.1 The approach adopted in Sixth Plan is to be continued during the Seventh Plan period. The major areas of priority and expansion are as under :—

- Steps will be taken to mobilise rural credit for farmers who were affected due to drought and floods and were not capable of repaying their debt by providing them relief through interest subsidy and making them eligible for fresh finance.
- Attracting and activating participation of vulnerable section of societies viz. Small Farmers, Marginal Farmers and Agricultural Labourers, Tribals and Scheduled Caste Farmers in cooperative movement in a big way by providing higher rate of subsidy in share capital Contribution not only in credit and multi-purpose Societies, but also extending benefits in other economic activities like Lift Irrigation, Milk-Co-operatives, Labour Co-operatives, Consumers Co-operatives.
- Reorganising non-viable cooperative societies either by amalgamation or by way of liquidation, to strengthen the cooperative structure.
- Promoting cooperatives in tribal areas by special efforts to organise LAMPS in areas where cooperative movement has not made much progress.
- Strengthening organisational arrangements for supervision and monitoring of large number of cooperatives which are expanding in the State through administrative measures and decentralised decision making authority at regional level for various provisions in Cooperative Societies Act, and providing administrative back up to cooperative societies at block level.
- Attempts would be made to make the PACS, multi-purpose in a true Sense and diversify their activities.
- Steps will be taken for improving quality of loans, supervision of loans and to launch a device to establish more effective contacts with borrower members.

3.4 Programme for Seventh Five Year Plan 1985-90.

3.4.1 An outlay of Rs. 3640 lakhs for the Seventh Plan 1985-90 has been Provided the broad break-up of which is as under :

(Rs. in lakhs)

Programme	Seventh Five Year Plan 1985-90
Direction & Administration	350.00
Credit Cooperatives	1630.00
Labour Cooperatives	30.00
Farming Cooperatives	20.00
Warehousing & Marketing Cooperatives	461.00
Processing Cooperatives	110.00
Sugar Cooperatives	572.00
Consumers Cooperatives	68.00
Cooperative Training and Education	140.00
Other Co-operatives	259.00
Total..	3640.00

Direction / Administration

3.4.2 Reorganisation of the Cooperative Department was under consideration due to many fold increase in the number of cooperative societies and nature of their activities. The number of cooperative societies which was 13959 in the year 1961 has increased to 35786 in the year 1983.

3.4.3 A separate Milk Audit Supervision Committee was formed with adequate supporting staff and the audit functions in respect of the milk societies and unions were transferred to the Committee. The Chief Executive Officer of the Committee is an independent Head of the Department directly functioning under the Secretary, Cooperation Department. More recently a separate Directorate of Sugar started functioning in the State and proposal to create another Head of Department viz., Director of Agricultural Marketing is under active consideration. The idea is to give more attention to the problems of Milk/Sugar/Agri. Marketing cooperatives. During the Seventh Plan period measures for strengthening organisational arrangement for supervision and monitoring of large number of cooperatives need to be made and the decision taking authority at regional level for various provisions in the Co-operatives Societies Act as well as offices to service cooperative societies at block level are planned to be set up.

Taluka level Set-up

3.4.4 At present, there is no set-up at taluka level to assist District/Asstt. Registrar in discharging his functions like organisation, supervision, inspection, preparation of plan proposals and implementation of Government policy ect. It is proposed to create post of Cooperative officer Grade-I (Rs. 500--900) at taluka level during the Seventh Plan period.

Strengthening of District level offices

3.4.5 The work load of District Registrar office has increased every considerably and there is now need to have senior officer in 9 districts where there are only Asstt. District Registrars, Additional post of Asstt. District Registrar in each district office requires to be created.

Regional offices

3.4.6 At present, no regional offices have been set-up to assist the Registrar. During the Seventh Plan it is proposed to set-up regional offices at Vadodara, Surat and Rajkot. The proposed regional offices with officers of rank of Joint Registrar in-charge with adequate delegation of powers will help Registrar in ensuring effective supervision of the working of the Cooperative societies through inspection, coordination, meetings and review to qualify the targets as well. They would be performing statutory functions under the Cooperative Societies Act.

Monitoring Cell

3.4.7 Various plan schemes for the development of special types of cooperative societies are being implemented by the department, but no separate set-up for monitoring of the plan schemes and programmes exists at State level. A separate Monitoring Cell at Head office consisting of one Joint Registrar, one Deputy Registrar and 15 ministerial staff is proposed during the Seventh Plan period with a view to have constant monitoring of different schemes. A special Monitoring Cell to watch the progress of recovery of cooperative dues has also been proposed.

Supervision and Audit Committee

3.4.8 Audit of cooperative institutions Village, district and State level is the responsibility of Government. It is expected to cover through audit wider aspects of

financial management, financial propriety and public interest. The combined turnover of the milk union and federation comes around Rs. 400 crores and capital employed around Rs. 50 crores. It is therefore necessary that the audit of these bodies is conducted intensively and extensively.

Credit Co-operatives

3.4.9 For supporting the massive agricultural programme, the state tried to build up a strong credit structure. On the credit side, it consists of primary agricultural co-op. District Central Co.op. Banks State level Co.op. Bank. besides the unitary structure of the State Co-op. Land Development Bank and its 182 branches. The State's assistance to these cooperatives is in the form of loans and grants, guarantees for undertaking the special tasks and share capital contribution Bank is acting as an Apex agency for the District central Co-op. Banks and at the grass root level, there are primary agricultural credit societies. The important components of various schemes are :—

- Outright grant is given by the Government to primary Agriculture credit societies at the rate of 4 per cent on the additional short-term loans and medium-term loan advanced to the weaker sections. The scheme encourages the PACS to give more advances to the weaker sections of the society.
- The Agricultural Credit Relief and Guarantee Fund is created to serve as a reserve fund at the State level for writing off bad debts.
- Agricultural Credit Stabilisation Fund is created at the State level to give loans to the State Co-op. Bank for conversion of short-term loans and medium-term loans in accordance with principles laid down by the Reserve Bank of India.
- Government contributes to share Capital of agricultural credit institutions *i. e.* Apex Co-operative Banks, Central Co-operative Bank, PACS so as to supplement their owned funds and strengthen their capital base to enable them to borrow adequately from higher financing institutions for carrying out the lending programme.

3.4.10. Primary Agricultural Credit Societies are being reorganised in the State on the basis of the Viability norms prescribed by the Reserve Bank of India. The Primary Agricultural Credit Societies (PACS) in the State have been classified as viable, potentially viable and non-viable societies. The programme of reorganisation has been launched through the Gujarat State Co-operative Bank and District Central Co-operative Banks. A special provision for compulsory amalgamation and liquidation of primary Agricultural Credit Societies has been made in the Gujarat State Co-operative Societies Act, 1961 by amending the Act, suitably in the year 1982. The number of non-viable societies has decreased from 3556 (in 1971) to 2,331 (in 1980) and has reached to 1588 in the year 1982. At the end of the year ending June, 1983, only 407 societies had remained non-viable, out of which, 35 are to be taken into liquidation, 305 Societies are to be amalgamated and 67 are to be revitalised.

Long-term Agricultural Credit

3.4.11. Long-term agricultural finance is provided by the Gujarat State Co-operative Land Development Bank, through 182 branches in the State. The Bank advances loans for investment in agricultural lands, such as land improvement, construction of wells provision of minor irrigation facilities and purchase of agricultural implements. The Gujarat Co-operative Societies Act has been recently amended to provide for diversification of activities for which the Land Development Bank would advance loans, these purposes include dairying, poultry and rural electrification.

3.4.12. Details regarding target of long-term finance and achievement by the Land Development Bank from the year 1980-81 are as follows :—

(Rs. in crores)

Sr. No.	Year	Target	Achievement
1	1980-81	10.00	5.77
2	1981-82	15.00	13.99
3	1982-83	15.00	14.53
4	1983-84	19.00	22.57
5	1984-85	19.00	18.60

3.4.13. It is proposed that Primary Agricultural Credit Societies will advance additional short and medium term loans of Rs. 460 crores and Rs. 85 crores respectively during the Seventh Plan. Target of long-term loans to be advanced is fixed at Rs. 234 crores.

Farmers' Service Societies (FSS) and Large sized Agricultural Multi-purpose Societies (LAMPS)

3.4.14. In pursuance of the latest policy of the Government of India, the farmers' service societies are organised only in non-tribal areas. There were 41 FSS in the year 1981, while 22 Farmers' Service Societies are working in the different areas of the State at the end of December, 1983.

3.4.15. 121 LAMPS have been promoted in tribal areas. Out of 1,07,197 members in different LAMPS, 96,642 were Scheduled tribe members, while, 10,555 were Scheduled Caste and other member as on 30th June, 1983.

3.4.16. The State Government accords high priority to promoting large sized agricultural multi-purpose societies for better serving the farmers in tribal areas. The societies render the services like supplying of agricultural inputs, implements, consumer goods, food-grains, marketing and storage, besides providing short term agricultural credit. The short term and medium term loans advanced by them, were to the tune of Rs. 169.96 lakhs and Rs. 24.12 lakhs respectively as on 30th June, 1983.

The distribution of inputs, marketing activities and consumers activities undertaken by them were of the order of Rs. 66.76 lakhs and Rs. 38.25 lakhs and Rs. 68.84 lakhs respectively. It is proposed to organise 50 LAMPS in the Seventh Plan period. It is proposed to increase the number of member to 5 lakhs during the Seventh Plan period.

Full Coverage scheme

3.4.17. The scheme is being implemented in 32 tribal talukas of the State. The object of the scheme is to see that all the economic activities of tribal agriculturists in the areas of integrated tribal development projects are fully covered by

co-operatives. The scheme envisages the sale of agricultural produce of the members through co-operatives. The credit is to be linked with marketing.

3.4.18. Interest subsidy at the rate of Rs. 4% to 7% is given on the recovery from the sale of agricultural produce from the members, subsidy to FSS/LAMPS for undertaking distribution of agricultural activities consumers activities is given under this scheme.

3.4.19. During the Seventh Plan period, it is proposed to increase the limit of Rs. 2000 and Rs. 1000 for undertaking distribution of agricultural inputs and consumer activities, with a view to encouraging the LAMPS to open more new branches to extend their services in the tribal areas. It is proposed to increase the above limits from Rs. 2000 to Rs. 4000 and from Rs. 1000 to Rs. 2000. It is also proposed to give this assistance to the branches, taking each branch as a separate unit for the purpose of assistance.

3.4.20. An outlay of Rs. 79.00 lakhs has been provided for the Seventh Plan period.

Rehabilitation of short-term advances of agriculturists and financial assistance to District Cooperative Banks

3.4.21 Agricultural Primary Co-operative Societies in default, are not eligible for fresh finance. However, with a view to give relief to the members effected by natural calamities, like draught, floods, certain arrangements have been in existence as per RBI and NABARD norms. The short-term loans of the affected members are converted into medium-term loan, consumption loans and fresh finance is given to them. If the natural calamities occur during consecutive year or years, rephasing and rescheduling facilities are also provided as result of which affected persons are not treated as wilful defaulters.

3.4.22. A special scheme of rehabilitations of affected farmers in the scarcity affected areas in introduced by State Government in Sixth Plan period, The scheme provided rehabilitation facilities for overdues of short-term credit and relief in the interest to the debtors of scarcity affected areas, under certain conditions. Under the scheme, the over-dues of the short-term agricultural credit as on 30th June, 1981 were converted into 10 annual instalments, in respect of farmaers, who opted for the scheme which was a voluntary one. Following tables provide details regarding rehabilitation of overdues of short-term agricultural finance.

Under the scheme financial assistance given is as under:

Year	Provision			Expenditure		
	Loan	Subsidy	Total	Loan	Subsidy	Total
1	2	3	4	5	6	7
1982-83	200.00	235.00	435.00	350.00	79.72	429.72
1983-84	10.00	100.00	110.00	116.92	83.31	200.23
1984-85	85.00	66.00	151.00	381.00	63.95	444.95
Total ..	295.00	401.00	696.00	847.92	226.98	1074.90

3.4.23. Details regarding financial assistance given under the rehabilitation of short-term overdues are as under :—

Total No. of defaulters in case of the villages affected by scarcity conditions during the period 1972-73	Total amount of overdues as on 30-6-81 of the defaulter (Rs. in lakhs)	Total number of beneficiaries covered under the scheme/to be covered	
		(a)	(b)
412919	12876.72	210677	202242
Rehabilitation loan granted (Rs. in lakhs)			
	Principal	Interest	Total
	7910.45	3125.07	11035.52

3.4.24. The scheme provides relief in interest to the debtors in the scarcity affected areas. Relief in interest to the extent of 7% is given to the small and marginal farmers and to the extent of 5 1/2% in case of other farmers. In addition, there is a provision to grant relief of 7% in interest on principal to the members of the co-operative structure residing in the areas where the defaulter members qualifying of the rehabilitation scheme will also be eligible to get relief. The benefit is given in the form of rebate share and such relief is to be given in four annual instalments. Out of this 7% rebate in interest, the liability for 3 1/2% interest is to be borne by the State Government and the balance 3 1/2% liability is to be borne by the co-operative structure.

Rehabilitation of long-term overdues of Gujarat State Co-operative Land Development Bank

3.4.25. To tackle the problem of overdues and to ensure that the eligibility of the various branches of the Land Development Bank for fresh advances is ensured, and also with a view to improve the financial position of the bank, the State Government has evolved rehabilitation scheme in respect of borrowers of the Land Development Bank. The scheme aims at blocking the overdues as on 30th June, 1981, classifying them in four categories :—

- (1) Overdues arising out of mis-applied loans.
- (2) Overdues of farmers other than small farmers in respect of whom period of repayment is over.
- (3) Overdues of small, marginal and tribal farmers, and
- (4) Overdues of other farmers, whose period of repayment is not over.

3.4.26. The scheme provides for rescheduling of the overdues of the 3rd and 4th categories of the farmers, over a maximum period of 5 years, having regard to the repaying capacity of individual farmers. However, in the case of tribal and small farmers, the repayment period could be extended upto 7 years for justifying reasons. The benefit of the scheme is extended to 1,38,738 farmers of 3rd and 4th categories and the amount of overdues rehabilitated in 5 annual instalments is Rs. 3112.28 lakhs. As envisaged under the scheme, the State Government has given financial assistance to Gujarat State Co-op. Land Development Bank by way of loan / subsidy/share capital to the tune of Rs. 1614.89 lakhs upto 31st March, 1985.

3.4.27. An outlay of Rs. 300.00 lakhs has been provided for the Seventh Plan period.

Providing assistance to coop. credit institution in the under developed areas as special areas. Assistance to District Coop. Banks for non-overdue cover.

3.4.28. A scheme for providing assistance to cooperative credit institutions operating in the under developed States and areas was sanctioned by the Govt. of India in the year 1981-82. and has been continued since then. The scope of the scheme has been extended to cover cooperative credit institutions working in drought prone areas and areas having more than 20% scheduled castes population.

3.7.29. The scheme cover central coop. banks which are viable, potentially viable and need non-overdue cover to operate on NABARD credit limits in order to fulfil their loaning programmes. Under the scheme financial assistance will be given to District Cooperative Banks whose internal resources are not adequate to cover the overdues and their recovery performance has been over 50% in the previous year. The assistance to non-overdue cover will be in the form of the loan for a period of 9 years with a moratorium for first three years. The interest will be charged at the rate prescribed by the Government of India from time to time. The interest will be payable annually and even during the period of moratorium. The amount of assistance to be given to the District banks under the scheme is to be shared equally between the Central and State Government. An outlay of Rs. 120.00 lakhs has been for the Seventh Plan period.

Financial assistance to Gujarat State Co-operative Land Development Bank Limited against the shortfall in recovery of locked overdues

3.4.30. Under the scheme of rehabilitation, overdues of GSLDB as on 30th Jun 1981 are to be blocked in a separate account. The amount blocked in this account is further classified into 4 categories. The repayment of overdues in respect of 3rd and 4th categories is to be made in suitable annual instalments, related to the repaying capacity of individual borrowers, subject to a maximum period of 5 years. As per understanding between NABARD, and State Government the blocked amount of Rs. 17.50 crores is accepted.

3.4.31. As per the scheme, the average demand of the GSLDB is to be worked out on the basis of blocked overdues which is to be recovered for a period of 5 years. The State Government has to make good the shortfall in recovery by advancing loans to GSLDB.

3.4.32. Under the scheme, an outlay of Rs. 120.00 lakhs has been provided for the Seventh Plan period.

3.4.33. During the Seventh Plan period following new schemes have been envisaged.

Share Capital subsidy to the SC/ST members of agricultural credit societies

The object of the scheme is to encourage ST and SC people to join cooperative societies. Under the scheme, Scheduled Castes and Scheduled Tribes members desiring to be enrolled as a member of PACS would require to pay Rs. 1/- as entrance fee and he would be entitled to have initial share amount limited to Rs. 40/- by way of subsidy from Government.

An outlay of Rs. 50.00 lakhs has been provided for the Seventh Plan period.

Interest relief subsidy to tribal members and scheduled caste members on their short term agricultural borrowings

3.4.34. A scheme on interest relief subsidy to tribal and SC members of their short-term agricultural borrowing is envisaged. The object of the scheme is to provide agricultural finance at the differential interest rate of 4%. A large number of tribal farmers and SC farmers who are still outside the field of the coop. credit can also be brought under the coverage. An outlay of Rs. 50.00 lakhs has been provided for Seventh Plan period.

Labour Co-operatives.

3.4.35. Labourers engaged in various construction works are one of the most exploited classes in the unorganised sector. The Labour Co-operatives in the State reflect an attempt to minimise this exploitation through organised economic activities. The object of these societies is to provide substantial employment to their members by obtaining various works on contract from Government, semi Government organisation Government undertakings and other public institutions.

3.4.36. At the end of 1983, there were 1699 labour cooperative societies in the State. The value of works executed by them during the year 1982 was Rs. 1863.00 lakhs out of which wages paid were Rs. 528.00 lakhs.

3.4.37. During the period 1980-84, against the target of 162 societies, 429 societies have been organised. 40 more societies were to be organised in the year 1984-85.

3.4.38. During the Seventh Plan period it is proposed to set up District Labour Contract Co-operative Societies in each district to provide proper supervision and guidance to primary labour co-operatives, in addition to 150 new primary labour contract societies to be promoted in different areas.

Farming Co-operatives.

3.4.39. Farming Co-operative Societies are promoted to help farmers with small holding to adopt better techniques of agricultural production and to raise productivity. At the end of June, 1983, there were 386 farming co-operative societies, with a total membership of 14751 out of which 14475 were scheduled caste members. Out of 386 farming societies, 25 were joint farming societies and 361 were collective farming societies. During the Sixth plan period, 50 Societies have been organised. 40 new farming societies are to be organised during the Seventh Plan period.

Warehousing and Marketing Co-operatives.

3.4.40. This is one of the most innovative areas in expansion of Co-operative activities in Gujarat. The Gujarat State Co-operative Marketing Federation is a body at State level which is interlinked with District Purchase and Sale Unions and 169 Taluka Purchase and Sale Unions. However, the outstanding feature, is the working of commoditywise Marketing Federations dealing with single commodity like Gujarat State Co-operative Cotton Marketing Federation, Gujarat State Oil Seeds Growers' Federation and Gujarat State Co-operative Fruits and Vegetable Marketing Federation with Primary marketing societies for Cotton, Oil seeds and fruits and vegetables besides Gujarat Milk Marketing Federation. These societies are organised for distribution of agricultural inputs and marketing of crops. Some marketing Co-operatives are engaged in processing too.

Financial Assistance to Marketing Co-operative.

3.4.41. To enable marketing societies for undertaking activities of sale of Agricultural produce, inputs and to strengthen them, the State Government provides share capital contribution and subsidy for construction of godowns under the National Grid Godown Scheme, subsidy on sharing basis (25% : 25%) is also provided by the Central Government, subsidy for price fluctuation fund of the value of the agricultural produce purchased directly from marginal, small and tribal farmers is also provided.

3.4.42. The National Co-operative Development Corporation also provides financial assistance under N.C.D.C. sponsored schemes. The National Co-operative Development Corporation also provides financial assistance for construction of godown to primary marketing societies and District Marketing Societies.

3.4.43. During the year 1983-84, agricultural produce worth Rs. 272 crores was marketed through Co-operatives as against the target of Rs. 210 crores.

3.4.44. During the year 1984-85, agricultural produce worth Rs. 300 crores would be handled by the Co-operatives. At the end of Seventh Five Year Plan, agricultural produce worth Rs. 450 crores would be handled by the co-operatives annually.

3.4.45. At the end of the Sixth Five Year Plan, it was proposed to create storage capacity of 3.85 lakhs M. T. as against this target, the storage capacity is likely to be 5.98 lakhs M. T. During the Seventh Plan, additional storage capacity of 2.00 lakhs M. T. is planned to be created.

3.4.46. In Gujarat, 80% of the fertilizer are being distributed by the co-operatives. During the Seventh Plan period, it is proposed to include the scheme for strengthening of commodity marketing organisations, the scheme for creating price stabilisation fund and the scheme for assistance to co-operatives for creating processing units. Under the first scheme, commodity marketing Federations are to be organised/strengthened. Under the scheme of creating price stabilisation fund, An amount equal to 0.05 per cent of the total turnover is to be credited by Federations to this fund and the Government will contribute equal amount for assistance to co-operatives for creating processing units .

3.4.47. An outlay of Rs. 461.00 lakhs has been provided for marketing co-operatives in the Seventh Plan.

Processing Co-operatives

3.4.48. Processing co-operatives are established to encourage farmers to process their produce to fetch better prices. There are 110 Cotton Ginning and Pressing Societies with a membership of 1,07,422, 49 rice mills with 4,543 members and 8 oil mills with 2132 members. The Gujarat State Co-operative Oilseeds Growers' Federation Ltd., is federal society of primary oil seed grower societies and has its own oil seed processing units at Bhavangar, Dhasa in Bhavnagar, District, Jamnagar and Jagudan in Mehsana District. It is envisaged to establish 15 new processing units (6 oil mills complex, 5 Dal mills and 4 Ginning and Pressing) during the Seventh Plan. An outlay of Rs. 110.00 lakhs has been provided during the Seventh plan period.

Sugar Co-operatives

3.4.49. There are 16 Co-operative Sugar Factories in the State with a total daily crushing capacity of 34,756 tonnes per day. The Ukai Pradesh Sahakari Khand

Udhyog Mandali Ltd., at Paniyari, District Surat is under construction with a crushing capacity of 1250 M. T. per day.

3.4.50. 4 New Sugar Co-operatives are to be established during the Seventh Plan each with a capacity to produce 1250 M. T. per day at the following centres:

Sr.No.	Taluka	District
1.	Nizar (Tribal Area)	Surat
2.	Vapi	Valsad
3.	Valia (Tribal area)	Bharuch
4.	Idar	Sabarkantha

3.4.51. An outlay of Rs. 497.00 lakhs has been provided in the Seventh Plan for the programme.

3.4.52. A separate office for the Directorate of Sugar has started functioning from the year 1982-83. The outlay proposed for the Directorate is Rs. 75.00 lakhs and thus, the total outlay for Sugar Co-operatives is Rs. 572.00 lakhs for the Seventh Plan.

Consumers Co-operatives

3.4.53. Consumers Co-operatives are established in a three tier system to supply essential articles to the consumers at fair price. There were 1072 Primary Consumers Co-operatives with 3,16,508 members at the end of 1983. The total sales of these stores was of the order of Rs. 40.65 crores. There were 26 Central Co-operative Consumers stores of which, 16 were departmental stores at the end of 1983, with a membership of 1,69,796 and a total sale of Rs. 31.88 crores in the year 1981-82. The Gujarat State Co-operative Consumers Federation Limited., has a Membership of 207 members and had a turn over of Rs. 930 crores during the year 1982-83.

3.4.54. During the Seventh Plan, 250 primary consumers stores, 4 Departmental stores and 3 regional distribution centres are to be organised. The targets of additional distribution of necessities of life in rural and urban areas are as under:—

	Sale : Rs. in crores
State Consumers Co-op. Federation	20.00
Central Consumers Co-op. Stores	40.00
Primary Consumers Co-op. Stores	60.00
Primary Service Co-op. in Rural areas	80.00
	<u>200.00</u>

An outlay of Rs. 68.00 lakhs has been provided for the Seventh Plan.

Co-operative Training and Education

3.4.55. The co-operative movement in the State has made rapid progress and has diversified its activities in several fields catering to the various needs of the people. Co-operative being democratic institutions, the members require necessary training to know their rights and duties as member, Managing Committee members and also the employees of the co-operatives need similar training.

3.4.56. The task of co-operative training and education is being performed by the two tier co-operative education structure, consisting of Gujarat State Co-operative Union and 18 District Co-operative Unions. The Gujarat State Co-operative Union is a federal body of 18 District Co-operative Unions and runs 4 Co-op. Training centres at Nadiad, Patan, Bhavnagar and Surat for the training of junior personnel of co-operative institutions and for intermediate personnel of various co-operatives Training College at Gandhinagar known as Udaybhansinhji Co-operative Training College. The District Co-op. Unions provide training to Secretaries, managing committee members, etc.

3.4.57. The training programme during the Sixth Plan period covered 1.86 lakhs trainees as under :—

Nature of Training Courses	No. of persons trained
Lower Diploma Course	3121
Training to Secretaries and Managers	7824
Managing Committee Members	40493
Members and future members	97587
Youth Co-op. Training Class	22562
Other training	14824
Total	1,86,411

3.4.58. During the Seventh Plan following training programmes are to be undertaken by the Gujarat State Co-op. Union.

Type of Class	No. of Classes to be held	No. of Persons to be trained
Secretary/Manager Training Class	225	5625
Training Class for Managing Committee members and Office-Bearers	2700	40500
Village level campus for ordinary members	5400	135000
Leadership Campus	95	2850
Youth Co-op. Training Class	500	20000
		2,03,975

3.4.59. During the Seventh Plan period following new schemes have been envisaged.

1. Financial assistance for co-operative education and Training for the personnel of co-operative in tribal areas.
2. Financial assistance for establishment of two additional Junior Training Centre.
3. Financial assistance for construction of campus for Junior Training Centres.
4. Financial assistance for research review on co-operation.
5. Financial assistance for setting up of an additional co-op. Training College.
6. Financial assistance to Universities for introducing co-operation diploma in higher studies at university level.
7. Financial assistance for inter-state cooperative study tour and exchange programme.
8. Financial assistance to Gujarat State Co-op. Union for production of documentary films on co-operation.

3.4.60. During the Seventh Plan period an outlay of Rs. 140.00 lakhs has been provided.

Other Cooperatives

Auto Rickshaw and Redda Pullers' Cooperatives

3.4.61. There were 23 Auto Rickshaw Cooperative Societies with a membership of 1755, 11 Redda Pullers, Co-op. Societies with a memberships of 1238 and 44 Transport Cooperatives with a membership of 6550 by the end of June, 1983.

3.4.62. An outlay of Rs. 9.00 lakhs has been provided for the Seventh Plan period

Share Capital Contribution and Co-operative for Contribution towards participating in Share Capital of KRIBHCO

3.4.63. The Krishak Bharti Cooperative Fertilisers Ltd., the second organisation of its kind having objectives of producing and providing Ammonia and Urea Fertilisers to farmers is in the process of setting up 2 Ammonia plants of 1350 M.T. capacity each and 4 Urea plants of 1100 M.T. per day at Hajira an Surat district. The estimated cost of the project is Rs. 980 crores. Contribution towards share capital of KRIBHCO from Gujarat was proposed to be of Rs. 1000 lakhs in Sixth Plan. Out of this, Rs. 350 lakhs were to be provided by the Government while the balance of Rs. 650 lakhs were to be contributed by cooperatives Rs. 334 lakhs have been paid as loan to Gujarat State Cooperative Marketing Federation for purchase of share of KRIBHCO during 1980-84. The balance of Rs. 16 lakhs have been sanctioned during 1984-85.

3.4.64. It is proposed to provide additional loan of Rs. 250 lakhs for purchase of shares KRIBHCO during the Seventh Plan period.

STATEMENT

Schemewise outlay for the Seventh Five Year Plan 1985-90

(Rs. in lakhs)

Sr. No. 1	No. and Name of the Scheme 2	Seventh Plan Outlay. 3
<i>Co-operation.</i>		
I. Direction and Administration.		
1	COP—1 Establishment of Taluka level set-up of Dist. Level office etc.	298-00
2	COP—2 Financial assistance to supervision committee of Co-operative dairy audit Board for staff.	30.00
New Scheme.		
3	COP—3 Strengthening of statistical staff.	12.00
4	COP—4 Setting up of monitoring cell and creation of New Administrative supervisory and statistical staff.	10.00
Total :		350.00
II. Credit Co-operatives.		
5	COP—5 Village Co-operative.	30.00
6	COP—6 Reorganisation and revitalisation of Co-op. Credit structure.	30.00
7	COP—7 Financial assistance to FSS/LAMPS for training training their staff.	1.00
8	COP—8 Risk fund for Q Consumption Finance	2.50
9	COP—9 Risk fund Contribution outright grant to I.D.B. for long term advances to tribals.	2.00
10	COP—10 Full Coverage scheme for Projects in Tribal	79.00
11	COP—11 Scheme for Secretarial cader for Agril. Cooperatives.	2.50
12	COP—12 Agricultural Relief and guarantee fund	30.00
13	COP—13 Stabilisation fund arrangement flow of crop credit for short and medium term.	150.00
14	COP—14 Rehabilitation of Short-term advance of Agril. and financial assistance to Dist. Co-op. Bank.	423.00

1	2	3
15	COP—15 Credit stabilisation fund to G. S., L. D. Bank for long term advances.	150.00
16	COP—16 Share capital contribution to Agril. Credit Institutions.	90.00
17	COP—17 Rehabilitation of long term advances and financial Assistance to GSLD Bank	300.00
18	COP—18 Scheme for Providing financial assistance to coop. institutions in the co-operatively under developed areas Assistance to Dist. Central coop Banks for Non-Overdues cover.	120.00
19	COP—19 Scheme for financial assistance to GSLD Bank Ltd., against the Short falls in recovery of blocked overdue.	120.00
20	COP—20..Share capital subsidy to SC/ST members of Agril. credit Coop.	50.00
21	COP—21 Interest subsidy to SC/ST members of Agril. credit Coop.	50.00
	Total Credit Coop II	<u>1630.00</u>
III. Labour Co-operatives.		
22	COP—22 Labour Cooperatives.	30.00
	Total : III	<u>30.00</u>
IV. Farming Co--operatives.		
23	COP—23 Cooperative farming socys.	19.80
24	COP—24 Share capital Subsidy to farming co-op. for S/c. members.	0.20
	Total : IV	<u>20.00</u>
Warehousing and Marketing Cooperatives		
25	COP—25 Financial assistance to Marketing Co-op.	8.00
26	COP—26 Margin Money assistance to Primary Co-op. Socys/taluka Purchase and Sale Union for out right purchase and pooling of Agril. Produce in tribal areas.	3.00
27	COP—27 Dist. Marketing societies do godowns.	3.00
28	COP—28 Price Fluctuation Fund.	30.00

4.I. WATER DEVELOPMENT (IRRIGATION)

4.1.1. Introduction.

4.1.1.1. The task of building an expanding national economy is to a large extent, dependent on the development and conservation of the nations water and land resources. Both agricultural and industrial expansion can be achieved by multipurpose development of river systems particularly for irrigation, flood control, power generation etc. In Gujarat, agriculture is the back-bone of the State's economy as nearly two-thirds of the population depend upon agriculture. It is essentially rainfed and dependent upon the vagaries of monsoon with hardly 18% of the cultivable lands being provided with irrigation facilities from all sources at present. Good monsoon, thus augers prosperity for Gujarat and a bad one lands to real disaster. Irrigation water inevitably is the fundamental and indispensable input to increase agricultural production in as much as it has a potential to increase the productivity at times even more than two to three times. In this context making available water for irrigation through various water development projects has inevitably been the prime concern of the State with a view to ensure that the agriculture base is on a sound footing and it is independent of the vagaries of rainfall at least in some parts of the State benefitting by such schemes.

4.1.1.2. Gujarat is one of the States in the country with relatively limited water resources for irrigation. Moreover, there are physical limitations about the available storage and diversion sites for economic and optimum exploitation of the resources. They are either not available or are inadequate in view of the flat nature of the terrain in the region where principal rivers flow. The ultimate irrigation potential being reported so far was based on very old estimates. Thereafter the process of investigating new schemes, re-appraising the potential of each scheme on the basis of detailed field survey of command area etc. were continued. For completed and ongoing Major/Medium irrigation schemes. (other than Narmada project), a Committee headed by Shri M. G. Shah, Additional Chief Secretary was appointed. The State Government has accepted most of its recommendations. In view of all these aspects the ultimate irrigation potential of surface and ground water has also been reassessed in April, 1984. Likewise potential harnessed upto June, 1983, for Major/Medium irrigation schemes is also re-assessed. Under Major/Medium irrigation schemes, there are 77 completed and 107 budgetted schemes. The ground water potential for each district is also re-assessed on the basis of long term data in consultation with the Central Ground Water Board which is an expert body at the National Level.

4.1.1.3. The ultimate irrigation potential through surface water as per latest estimate is assessed at 39.40 lakh hectares including 17.92 lakhs hectares through Sardar Sarovar (Narmada) Project. As regards ground water resources, also, they are relatively limited without augmentation by the Sardar Sarovar (Narmada) Project. In fact, some of the ground water resources have been depleted specially in Mehsana district (where control on the sources tapping ground water is called for) and the coastal parts of Saurashtra where the advancing ingress of salinity into the ground water has reduced potentially fertile soils into marginally productive or unproductive soils. The precise assessment of ultimate irrigation potential by ground water in alluvial and rocky tracts depends upon several factors and studies covering the whole of Gujarat are yet to be made. However, it is recently estimated that about 25.48 lakh hectares can be irrigated by ground waters. Thus, the total ultimate irrigation potential of the State as now re-assessed (April 1984) works out to 64.88 lakh hectares. The present status of development is given in the table below:

(in lakhs Ha.)

Item	Ultimate irrigation potential Re-assessed April, 84.	Harnessed potential June-85	Maximum utilization
1	2	3	4
(A) Surface Water			
1 Major and Medium Schemes based on surface water (without Narmada)	18.00	10.81	7.15
2 Narmada Project (including conjunctive use)	17.92	..	..
3 Minor Irrigation Schemes	3.48	1.66	1.00
Total:..(A)	39.40	12.47	8.15
(B) Based on ground waters			
Total..	64.88	30.61	23.56

4.1.1.4. It will be seen from the above table that the total resources are harnessed to the extent of about 47% while the surface resources are harnessed to the extent of about 31%. The total cultivable area in the State is 124.45 lakh hectares and with the present potential created and irrigation (utilisation) achieved, these percentages are 24% and 17.68% respectively. Out of this, the contribution of the surface schemes comes to about one-third. The percentage ultimate irrigation according to the above table with a cultivable area of 124.45 lakh hectares would work out to 52% only. This percentage would be very much below the ultimate figure of 62.7% estimated for India as a whole. Thus, even with Narmada the State would remain permanently well below the All India level in respect of irrigation facilities. Irrigated agriculture, therefore, assumes high priority in Gujarat.

4.1.2. Review of Progress during earlier Plans

4.1.2.1. There had been very poor irrigation facilities existing before 1950 in all the constituent parts of the present Gujarat State viz., Saurashtra, Kachchh and Ex. Bombay State. There were no important irrigation systems existing in the State and only small irrigation systems were in existence the benefits from which covered hardly an area of 21,000 hectares. Highest priority has, therefore, been accorded to the irrigation sector right from the inception of plans.

4.1.2.2. The plan periodwise position in respect of the major and medium irrigation schemes taken up to the end of the year 1979-80 is depicted in the table below :—

Sr. No.	Plan period	NUMBER OF SCHEMES							
		Spilled over from the previous plan.		Newly Taken up		Total in progress		Completed.	
		Major	Medium	Major	Medium	Major	Medium	Major	Medium
1	2	3	4	5	6	7	8	9	10
1	Pre-plan	..	..	..	2	..	2	..	..
2	1st Plan	..	2	3	30	3	32	..	2
3	2nd Plan	3	30	5	19	8	49	..	16
4	3rd Plan	8	33	..	..	8	33	1	22
5	Three Annual Plans.	7	11	1	..	8	11	2	4
6	4th Plan	6	7	6	43	12	50	..	2
7	5th Plan	12	46+ (48)	4	13	16	59	..	13
8	Two Annual Plans.	16	46	1	69	17	115	2	5

+ Two schemes transferred as water supply schemes.

4.1.2.3. The State has been allocating substantial outlay on the major and medium irrigation projects during the course of the various five year plans.

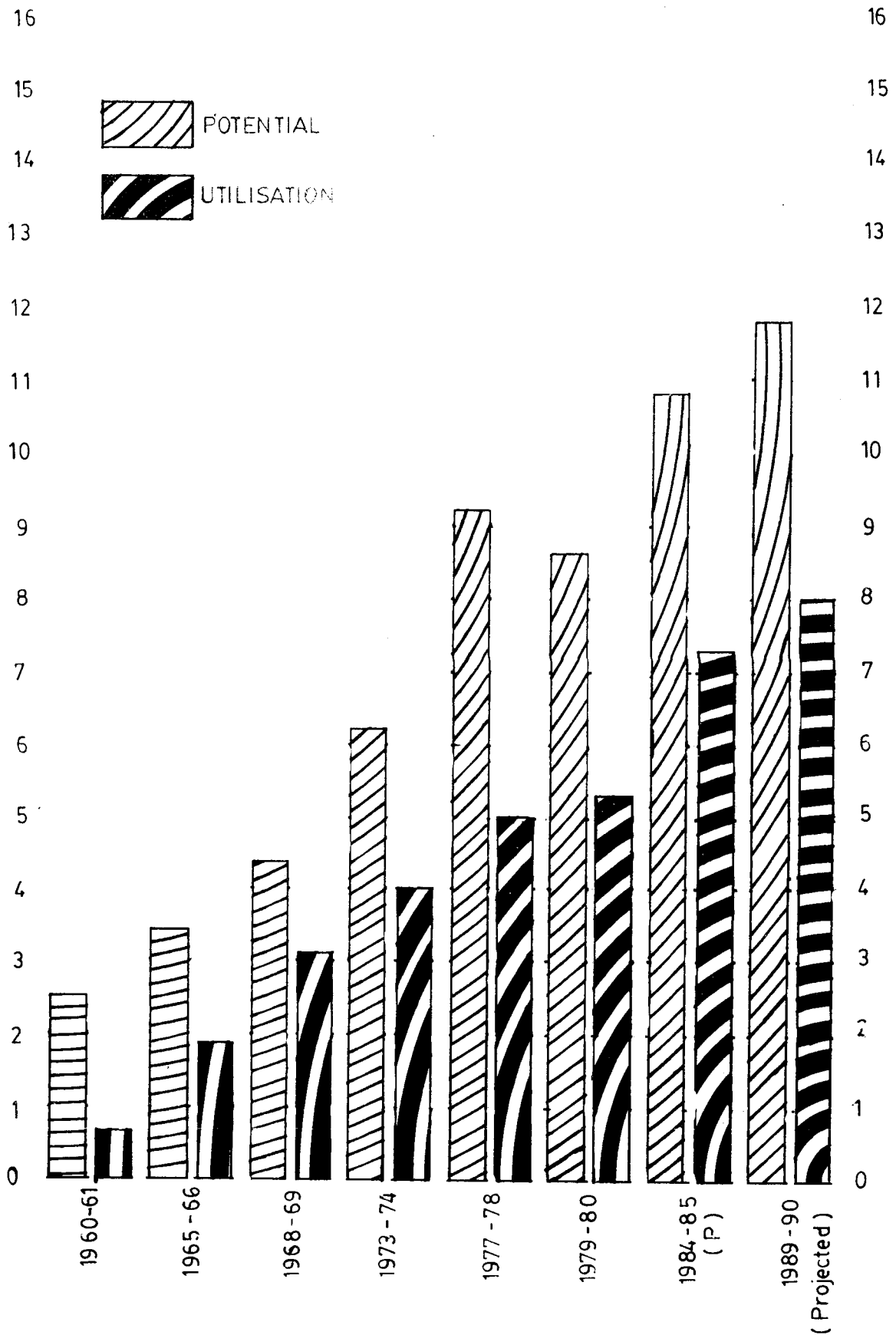
4.1.2.4. The following table depicts the physical achievement by way of creation of irrigation potential and levels of utilisation in the various plan periods commencing from First Five Year Plan.

(in lakh hectares)

Sr. No.	Plan	Irrigation potential during Plan/Annual Plans.	Irrigation potential created (cumulative)	Utilisation achieved.
1	2	3	4	5
1	At the end of the First Plan (1951—56)	0.23	0.23	..
2	At the end of the Second Plan (1956—61)	2.25	2.48	0.66
3	At the end of the Third Plan (1961—66)	0.93	3.41	1.90

IRRIGATION

MAJOR AND MEDIUM IRRIGATION PROJECTS IN LAKH HECTARES



1	2	3	4	5
4	At the end of the Three Annual Plans (1966—69)	0.98	4.39	3.11
5	At the end of the Fourth Plan (1969—74)	1.83	6.22	4.01
6	At the end of the Fifth Plan (1974—78)	3.02	9.24	5.01
7	At the end of the Two Annual Plans (1978—80)	0.88	10.12 (8.62)+	5.29

+ Reappraised.

4.1.3. Review of Progress during the Sixth Five Year Plan

4.1.3.1. At the beginning of the Sixth Five Year Plan carryover schemes of the earlier plans were as under :—

(i) No. of schemes spilling over

Major	..	15
Medium	..	110

(ii) Balance cost of spill-over schemes at that stage Rs. 767.25 crores

4.1.3.2. With such a large spillover liability it became evident that the first priority for the Sixth Five year Plan should be for expeditious completion of all potential creating schemes. This emphasis on completion of ongoing projects in the Sixth Five Year Plan has paid good dividends as will be seen from the following :—

(i) The Major ongoing projects like Kakrapar, Mahi-Stage-I, Ukai, Kadana are completed.

(ii) Other major projects like Sabarmati, Panam and Damanganga will be nearing completion. These projects have contributed to a sizeable extent to the irrigation potential developed in the State during Sixth Five Year Plan.

(iii) A number of medium irrigation projects like Machhanlala, Ver-II, Baldeva, Pigut, Wankleshawar Bhey, Lakhigam, Esdalwada, Kelia, Shingoda, Chhapparwadi (J), Waidy, Goadthad, Raval-II Goadadharoi, Hiran (S) Mitti Rajawal, Kharo, Lakhanka & Fategadhd located in the drought affected for Tribal Areas were practically completed by the end of the year 1984-85, thereby adding a substantial block of irrigation potential in an area where scarcity is recurrent.

4.1.3.3. During the course of Sixth Five Year Plan (1980—81 to 1984—85) 4 major and 19 medium irrigation schemes were completed. Major Projects like Karjan and Damanganga have reached an advanced stage. Thus, the impact of concentration on ongoing projects has been significant.

4.1.3.4. For the Sixth Five Year Plan an over all outlay of Rs. 1000 crores was provided with around the physical target of creating additional irrigation potential of 2.60 lakh hectares. As against this an expenditure of Rs. 882 crores is likely to have been incurred during the Sixth Five Year Plan creating an additional irrigation potential of over 2.00 lakh hectares.

4.1.3.5. Another important aspect of the Sixth Five Year Plan Year Plan was to optimise benefits not only through the creation of irrigation potential by available major and medium irrigation porjects but also through significant improvements in the status of utilisation of the existing irrigation potential by effective and concentrated multidisciplinary strategy and by way of comprehensive modernisation programme. This has already been implemented by the State in the last few years Six existing medium irrigation schemes under the programme have already been taken up through the World Bank Aid Programme under Medium line of credit Modernisation of Ukai, Kakrapar projects was also taken up in a big way under the world Bank Aid Programme of Gujarat Irrigation Major Composite Projects. Over and above these two programmes other existing schemes have also been taken up under modernisation programme. For economic use and equitable distribution of water among all the beneficiaries, the scheme of "Rotational System of Supply of water" (*i.e.* Warabandhi System) was also introduced by the State Government. This programme was given high priority during the Sixth Five Year Plan period. Besides, for maximising utilisation of the potential created, It also planned to extend the irrigation channels from 40 Ha chak upto 8 Ha. chak. With the development of irrigation in command area of major irrigation projects, especially under Ukai-Kakrapar and Mahi-Kadana Projects, the aspect of drainage has also been given due priority.

4.1.3.6. Besides, problems created by the increasing ingress of salinity along a part of the Saurashtra coastal area have also been adequately controlled. This project has also been included in the World Bank Aid Programme under major composite group. High Level Committee is specially set up to study and recommend measures for speedy sanction and implementation of this specific problem requirements

4.1.3.7. After the declaration of the award of the Narmada Water Dispute Tribunal, work on the Narmada Project has been launched effectively. However, due to the enormous size of the project (Rs. 5793 crores) the flow of physical benefits cannot start unless a sizeable amount is spent in the plan.

4.1.3.8. The Sixth Five Year Plan was also the most opportune period for accelerating flood control works considering the fact that reservoir projects on the principal rivers have already been completed and the vulnerable downstream flood areas can be effectively protected by integrated measures (with regulated discharges from reservoir) construction of embankments, sluices etc. The flood distress areas are as large as 9.01 lakh hectares affecting a population of 40 lakhs. The State Government has therefore, prepared a revised master plan for flood control covering the entire State and keeping in view the recommendations made by the National Commission on floods.

4.1.3.9. During the Sixth Five Year Plan, two groups of projects--one medium and the other major were financed through the World Bank Aid. Under Medium Line of Credit Projects, assistance from the World Bank was available upto June, 1984. There are 29 projects under this group of which 6 are modernisation schemes. The credit assistance was also available from USAID for these projects. In all credit assistance of 115 million dollars was obtained on these schemes. As all these projects have not been completed by June, 1984 a repeater project (172 Million Dollar Credit) for a further period beyond June, 1984 was posed to the World Bank for assistance. Negotiations have been finalised and an agreement IN-1496 was signed for Medium Repeater Project. Against the outlay of Rs. 27,605 lakhs for the Sixth

Five Year Plan, likely expenditure during the plan would be Rs. 32801.50 lakhs. Under the Major Composite group of projects, Damanganga (with CAD works) Ukai-Kakrapar (CAD component including modernisation) Heran. Karjan and Saurashtra Coastal Projects have been accepted for assistance by the World Bank. The agreement was signed in May, 1980 for the credit of 175 million dollars for the Sixth Five Year Plan.

4.1.4. Perspective of Development

4.1.4.1. As brought out in the foregoing paragraphs a very substantial headway could be made with the implementation of major river valley projects of the State on the rivers Tapi, Mahi, Panam, Sabarmati, Damanganga and Karjan, In fact, it was planned to complete all major projects of the State by the end of Sixth Five Year Plan. However, due to certain changes and modifications in projects aided by World Bank, Forest land problem etc. these major projects viz. Karjan, Damanganga, Zankhari, Sipu etc. have spilled in the Seventh Plan. The same applies to many medium irrigation projects of Saurashtra region also. Moreover, due to revision of hydrology certain projects also spill into Seventh Five Year Plan.

4.1.4.2. Sardar Sarovar (Narmada) Project scheduled to be completed in 17 years should get highest priority during the Seventh Plan. Benefits from the Narmada Project can therefore start flowing to some extent from beginning of the Eighth Five Year Plan period by careful planning of the huge canal system. With the tempo of irrigation development to be sustained substantial to a reasonable level in the Seventh Five Year Plan, it is clear that the strategy for Seventh Five Year Plan should be to complete the on-going potential creating projects and optimise benefits from the existing ones along with taking up the Sardar Sarovar (Narmada Project) in a big way.

4.1.4.3. The important measures contemplated in this direction are (a) expediting work of on-going major and medium irrigation projects to complete them in the Seventh Five Year Plan, (b) deriving additional benefits from the existing schemes which are already in operation by way of modernisation and other measures. Another aspect of the strategy should be consolidation of benefits derived during the Sixth Five Year Plan. It is necessary to plan comprehensive and effective measures for improving the level of utilisation on all irrigation projects. Inadequate disciplines in use of water on the part of our farmers coupled with availability of large quantities of water under some of the major projects like Ukai-Kakrapar and Mahi-Kadana have created problems of rise in sub-soil water levels in a few cases especially where the drainage characteristics of the soils are unfavourable. It is, therefore, aimed in the Seventh Plan to lay emphasis on drainage aspect as a part of over all anti-water-logging strategy.

4.1.4.4. Along the South-Western coast of Saurashtra over drawal of ground water combined with inadequate recharge has brought to the fore the problems of ingress of salinity from the sea which consequently damages the rich agriculture tract covering an area of as large as 6 lakh acres. The State has also to push through the various flood control schemes which could not be given priority hitherto, in order that distress in a number of river basins covering an area of 9.01 lakh hectares and affecting a population of 40 lakh souls is mitigated. The Seventh Five Year Plan is an opportune period for accelerating the flood control works considering the fact that reservoir projects on the principal rivers have already been completed and the down stream vulnerable flood areas can be effectively protected by integrating measures (with regulated discharge from reservoirs consisting of embankments, sluices etc. The State Government has already prepared a master plan for flood control covering the whole State and amounting to about Rs. 120 crores and a meaningful impact of realisation of benefits can only be achieved if

adequate provisions could be built in for this activity in the Seventh Five Year Plan.

4.1.4.5. In Gujarat, there is vast area covered Under the tribal sub-plan. Moreover, there are a number of talukas declared as drought prone areas. It is therefore, obligatory to take up new schemes in these backward areas.

4.1.4.6. The strategy of the State Government in respect of water development sector (Including drainage) for formulation of the Seventh Five Year plan is as under :

(i) Efforts to be made to complete as much and possible irrigation schemes that have spilled into Seventh Five Year Plan for deriving full benefits therefrom.

(ii) Launching Narmada Project in a big way so that the benefits start flowing from the project, at least in the beginning of Eighth Five Year Plan, the objective being to derive benefits in a phased manner so that the ill-effects of large inputs of finance for the project and consequently likely inflationary pressures are at least, partly counter-acted by increased productions.

(iii) Accelerating the pace of modernisation programme in respect of existing earlier plan schemes with a view to optimising the physical benefits therefrom.

(iv) Taking drainage works in the command areas of Ukai-Kakrapar and Mahi-Kadana Projects most vigorously as part of the overall master plans and completing such works under the plans during the Seventh Five Year Plan itself in all respects.

(v) Phasing through immediate measures called for towards countering ingress of salinity in coastal ground waters along the coast of Saurashtra and Kachchh with a view to arresting permanent damage to agricultural lands along the entire coast line.

(vi) Implementation of Warabandhi system for equitable distribution of water for better use of available water.

(vii) Construction of lined irrigation channels upto 8 Ha chak instead of 40 Ha chak for better efficiency of water management.

(viii) Accelerating the tempo of flood control works as a part of the overall flood control master plan for the State in the Five Year period in order to provide relief to at least the areas that are recurrently vulnerable.

(ix) Accelerating the tempo of studies, investigations and research to the major and medium irrigation projects, drainage and flood control works. Timely and effective investigations, design and sanctions of ongoing projects is fully justified. Research and Development activities through Gujarat Engineering Research Institute (G.E.R.I.) Vadodara, a State level research organisation is definitely helping irrigation projects with the testing and research facilities. Technical standards can be reviewed on the basis of experience for having resultant economy. Accordingly, matching provision has been provided for research and development.

4.1.4.7. The State Government is determined to concentrate on the aspect of command area programmes during the Seventh Five Year Plan as a part of the strategy and objectives for the Seventh Five Year Plan for optimising agricultural production.

4.1.4.8. For a State like Gujarat, no strategy for irrigation development can be considered as complete if it fails to take into account the prime consideration that

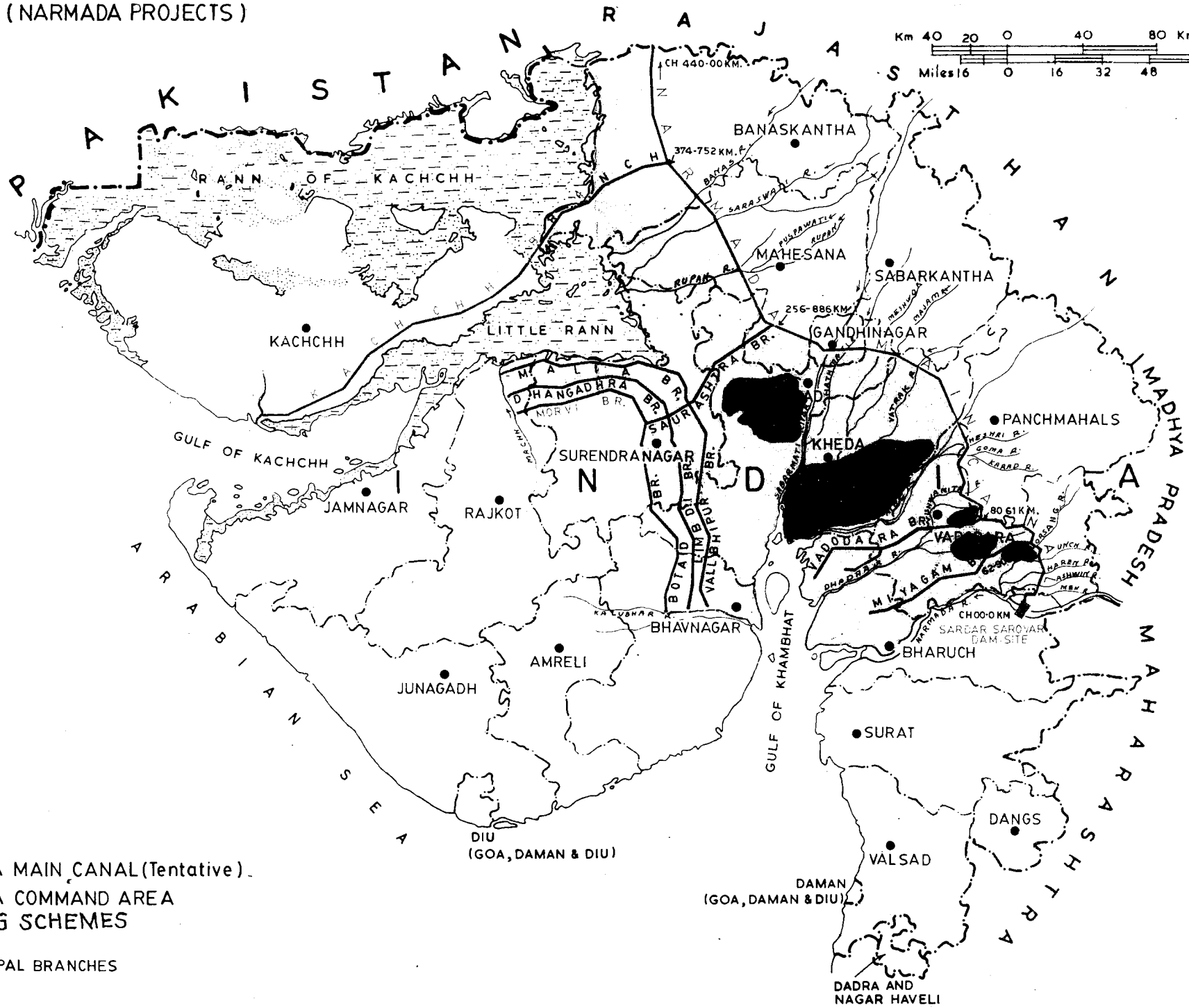
GUJARAT

SARDAR SAROVAR PROJECTS

(NARMADA PROJECTS)

BOUNDARIES:
 INTERNATIONAL
 STATE / UNION TERRITORY - - -
 DISTRICT

Km 40 20 0 40 80 Km
 Miles 16 0 16 32 48 64



DAM SITE
 NARMADA MAIN CANAL (Tentative).
 NARMADA COMMAND AREA
 EXISTING SCHEMES
 Note:-
 ONLY PRINCIPAL BRANCHES
 ARE SHOWN

68° East of Greenwich 69°

70°

71°

72°

73°

74°

75°

areas faced with naturally deficient rain-falls or with natural handicaps and taken care of adequately and comprehensively. In this context, care has been taken to see that in the Seventh Five Year Plan priority is given for the development of irrigation facilities in the drought prone areas and areas where tribal people live and also backward areas. New Schemes subject to availability of funds are restricted to these areas.

4.1.4.9. Progressive achievements of irrigation potential and utilisation shows that irrigation potential of 10.12 lakh hectares was created up to Re-appraised to 8.60 lakhs June, 1980. Target for major and medium irrigation projects during the Sixth Five Year Plan was 2.60 lakh hectares. The actual achievements is about 2.00 lakh hectares. Thus by the end of Sixth Five Year Plan. *i. e.*, June, 1985, 10.81 lakhs hectares irrigation potential is created.

4.1.4.10. Considering the long term perspective planning for Seventh Five Year Plan discussed above, the ultimate picture of creating irrigation potential including Narmada Project and Ground water Resources emerges as below:

(in lakh Hact)

Sr. No.	Item	Ultimate irrigation potential	Level of achievement at the end of		
			1979—80 (Actual)	1984—85 Likely	1985—90 Targets
1	Major/Medium Schemes	18.00	8.62X	10.81	11.81
2	Sardar Sarovar (Narmada) Project	17.92	..	..	..
3	Minor Schemes	3.48	1.28	1.66	2.68
4	Ground water	25.48	16.08	18.14	21.52
	Total	64.88	25.98	30.61	36.01

X Reappraised.

4.1.5. Programme for the Seventh Plan—Major Groupwise:

4.1.5.1. The outlays provided for the seventh plan are shown below:

(Rs. in crores)

Major Groupwise

Sr. No.	Sub-Head	Total Estimated Cost.	Expenditure upto the end of March, 1985	Spillover at the end of March, 1985	Outlay provided for Seventh Plan 1985—90
1	2	3	4	5	6

I. World Bank, Aided Projects.

A	Major Composite Projects (5)	425.46	237.03 UT17.77	170.66	84.00 +5.50
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1	2	3	4	5	6
B.	Medium Line of Credit	791.46	408.22	383.29	170.00
	Total..	1216.92	645.25 UT17.77	553.90	259.00 +5.50
II.	Multipurpose Projects in Progress on 1-4-1976 (Sabarmati) (1)	79.68	78.18	1.50	1.50
III.	On-going Major Projects (Bajaj Sagar) (1)	46.70	37.20	9.50	2.50
IV.	On-going Medium Schemes (19)	77.09	53.18	23.91	17.42
V	Medium Schemes taken up during 1978-80				
(A)	Schemes Originally posed for EEC but now dropped (11)	33.13	19.13	14.00	10.20
(B)	Other on going schemes (12)	37.36	28.21	9.15	7.89
(C)	Schemes in the initial stage (3)	17.61	0.04	17.57	0.05
VI.	New Schemes of Sixth Five Year Plan (3)	23.45	6.08	17.37	12.50
VII.	New Schemes.				
(A)	Where Administrative Approval is given (a)	43.28	..	..	2.88
(B)	Where Administrative Approval is under Consideration (15)	120.50	..	..	6.34
(C)	New Schemes of Seventh Five Year Plan where Administrative Approval is not available. (3 + 85 - 88)	520.11	..	..	0.90
	Total I to VII.	2215.83	867.27 UT17.77	1330.79	316.18

1	2	3	4	5	6
VIII. Water Development Services and Other Programmes.					
(1)	Extension of Channel 40 Ha. to 8 Ha. chack.	..	0.49	..	9.00
(2)	Research and Development	..	36.50	..	15.00
(3)	Drainage.	..	33.80	..	21.25
(4)	Modernisation of Canals (other than World Bank)	..	10.21	..	4.85
(5)	Prevention of Salinity Ingress (Other than World Bank)	..	5.00	..	10.00
(6)	Flood Control and Anti-erosion Works	..	29.20	..	12.00
(7)	Extension and Improvements.	..	9.56	..	3.00
(8)	Special requirements for completed major and medium irrigation schemes.	..	313.28	..	7.25
Total VIII		..	438.04	..	82.35
Total I to VIII		2215.83	1305.31 UT 17.77	1330.79	398.53
IX. Sardar Sarovar Project (Narmada)		5793.00	354.24	5438.76	1063.50
Grand Total :		8008.83	1659.55 UT 17.77	6769.55	1462.03 +5.50

Note :—Figures in brackets in each group indicate the number of projects in each Group.

4.1.5.2. The overall programme for the Seventh Five Year plan 1985—90 is divided into different groups which are discussed in details as under :

(I) Sardar Sarovar Project

4.1.5.3. This is an inter/State multipurpose river valley project. An agreement has been signed for World Bank assistance in May, 1985. A provision of Rs. 1063.50 crores is provided for the Seventh Five Year Plan, towards share of Gujarat under irrigation sector. The gross outlay for this project including the

share of other beneficiary states and powers sector is Rs. 2041.90 lakhs (Rs. 146.50 lakhs for state power sector and Rs. 831.90 lakhs as beneficiary states shares).

(II) World Bank Aided Projects

4.1.5.4. Assistance from World Bank/USAID, under two different groups (A) Major composite projects and (B) Medium Irrigation Projects is available at present.

(A) Major Composite Projects

4.1.5.5. Damanganga (with CAD works) Ukai-Kakrapar (CAD works including modernisation) Karjan, Training Institution and Saurashtra Coastal Prevention of Salinity Ingress have been accepted for assistance by the World Bank under this group. The total latest estimated cost of these projects is about Rs. 42546 lakhs. The agreement was signed in May, 1980 for the credit of 175 million U. S. dollars for these projects. The total likely expenditure incurred under this group upto the end of March 1985 is Rs. 237.03 lakhs excluding the U. T. share of Rs. 1776.53 lakhs. Thus, against the spillover cost of Rs. 17066.63 lakhs an outlay of Rs. 8400 lakhs have been provided for the scheme in this group for the Seventh Five Year Plan 1985—90. This is exclusive of Rs. 550.00 lakhs as U. T. share.

(B) Medium Line of Credit

4.1.5.6. This group includes in all 29 schemes, 6 of which have been completed but are proposed for modernisation. Remaining 23 scheme are continuing schemes. The latest estimated cost of these 29 projects works out to Rs. 791.46 lakhs. These medium projects will benefit drought prone areas in the districts of Kachchh, Panchmahals, Banaskantha, Bhavnagar and Surendranagar.

4.1.5.7. An agreement for credit assistance of 85 million dollars was signed with the World Bank in July, 1978 and for 30 million dollars with USAID in August, 1978, for the medium irrigation projects. The extended agreement period has also been over by June, 1984. The ultimate aim of the World Bank for releasing the credit assistance was to introduce a stable water management system based on the principle of equity and scheduled allocation of water as per the size of the holding of the farmer. The construction of only dam works were almost completed on most of the scheme by June, 1984. But the network system was very much lagging behind the schedule, which in turn, defeated the above purpose of the World Bank.

4.1.5.8. In view of the above, the inception of the further credit had become obligatory. Accordingly the new credit (No. 1496 IN) as a whole was further introduced and a new agreement for the credit assistance of 172 M. was signed in July, 1984, and has become effective upto the end of the year 1989. For all the medium irrigation schemes, included in the old credit. The total likely expenditure incurred under this group upto the end of March, 1985 is about Rs. 40821.65 lakh. Thus, against the spillover cost of Rs. 38323.97 lakhs, an outlay of Rs. 17000 lakhs has been provided for the schemes in this group for the Seventh Five Year Plan 1985—90.

(III) Ongoing Medium Schemes as on 1-4-1978

4.1.5.9. There are 19 schemes in this Group. The total estimated cost is about Rs. 7708.65 lakhs. The spillover liabilities of these schemes after March, 1985 is Rs. 2390.61 lakhs, against which an outlay of Rs. 1742.00 lakhs is provided for the Seventh Five Year Plan.

(IV) Schemes taken up during 1978-80

(a) Originally posed to EEC

4.1.5.10. There are 11 ongoing schemes with an estimated cost of Rs. 3313.43 lakhs. The spillover liability of these schemes after March, 1985 is Rs. 1400.00 lakhs against which an outlay of Rs. 1020 lakhs is provided for the Seventh Five Year Plan. All these schemes are in full swing.

(b) Other ongoing Medium Schemes

4.1.5.11. There are 12 ongoing medium schemes under this group with an estimated cost of Rs. 3736 lakhs. An expenditure of Rs. 2821.00 lakhs has been incurred upto the end of the Sixth Five Year Plan. Thus against the spillover cost of Rs. 915.00 lakhs an outlay of Rs. 789.00 lakhs has been provided for the schemes in this group for the Seventh Five Year Plan.

(C) Scheme in the initial stages

4.1.5.12. There are three schemes viz. Und-II, Ozat (Dharafad) and Veradi in this group. The estimated cost of these schemes is about Rs. 1761.00 lakhs. As very little expenditure has been incurred upto the end of March, 1985 keeping the available resources in view an outlay of Rs. 5.00 lakhs have been provided for these schemes during the Seventh Five Year Plan.

(V) New Schemes of Sixth Five Year Plan

4.1.5.13. Only Machnu-II project is taken up for consideration which is shown under this group. An outlay of Rs. 1250 lakhs is provided for the Seventh Five Year Plan.

(VI) New Schemes

4.1.5.14. Under this group there are 107 schemes of which 19 schemes are continuing schemes of earlier plan and remaining 88 (3 Major + 85 Medium) schemes have been included as new schemes of seventh Five Year Plan.

(a) Scheme where administrative Approval is given

4.1.5.15. There are 4 schemes in this group. The estimated cost of these projects is Rs. 4328 lakhs and an outlay of Rs. 288 lakhs, is provided for the Seventh Five Year Plan.

(b) Scheme where administrative approval is under consideration

4.1.5.16. There are 15 scheme in this group. The estimated cost of these schemes is Rs. 12050 lakhs. An outlay of Rs. 634 lakhs is provided for the Seventh Five Year Plan as a token provision. All these schemes are in advanced stage of according Administrative Approval.

(vii) Drainage

4.1.5.17. The works outlined in the master plan for drainage in respect of Ukai-Kakrapar and Mahi-Kadana are proposed to be completed during the Seventh plan. An outlay of Rs. 2125 lakhs is provided for this programme.

(viii) Salinity Ingress

4.1.5.18. The ingress of salinity in coastal ground water has already rendered unproductive the vast areas of lands along the coast of Saurashtra. Looking to the importance, this programme has been taken up under the World Bank Aided Major Composite projects as Saurashtra coastal project. The outlay for this project is fully covered under the group of World Bank aided projects. However, this programme is also required to be taken up in further areas on priority basis. For this purpose an outlay of Rs. 1,000 lakhs crores is provided during the Seventh Five Year Plan.

(ix) Flood Control

4.1.5.19. Flood Control programme has assumed greater importance in Gujarat due to frequent floods and heavy rains in the State. The Revised Master Plan amounting to Rs. 120 crores had been proposed during the Seventh Five Year Plan against which an outlay of Rs. 20 crores was provided. The outlay provided each year was even much less. Looking to the need for providing adequately for this important programme during the Seventh Five Year Plan. An outlay of Rs. 12 crores is provided for the Seventh Five Year Plan.

(x) Modernisation of canals

4.1.5.20. Some of the irrigation schemes in the state have been constructed in the past keeping in view the type of crops then grown and the water requirement of such crops. With the research and development activities in the agriculture field a number of new improved varieties of crops have been developed which need irrigation water in larger quantity of at bigger frequency as compared to traditionally grown crops in the past. The available water is therefore required to be conserved and used efficiently. To achieve this aim it is necessary that such existing schemes are modernised. Realising this necessity a high priority was given for modernisation of the existing irrigation schemes. Accordingly, an outlay of Rs. 94.66 crores was made in the Sixth Five Year Plan for this work. The details of which are as under :

(1) World Bank aided projects

(a) Kakrapar	Rs. 31.40 crores
(b) Six Medium Projects	Rs. 55.26 crores
(2) Other than World Bank Aided Projects	Rs. 8.00 crores
	<hr/>
	Rs. 94.66 crores

Out of the outlay of Rs. 94.66 crores an expenditure of Rs. 86.73 crores has been incurred during the Sixth Five Year Plan. The balance of the Works is required to be completed during the Seventh Five Year Plan. period. In addition to this Modernisation of some more existing projects is proposed to be taken up. An outlay of Rs. 52.85 crores is provided for this work in the Seventh Five Year Plan. The details of which are as under :

(1) World Bank projects

(a) Kakrapar	Rs. 9.00 crores
(b) Six Medium Projects	Rs. 39.00 crores
(2) Other than the World Bank Aided Projects	Rs. 4.85 crores
	<hr/>
Total ..	Rs. 52.85 crores

(xi) Extension of channels

4.1.5.21. Earlier the outlets were being provided on canals to serve an area of about 40 hectares of land. Beyond it the farmers were considered responsible to carry water upto their fields by constructing field channels by themselves at their own cost. It has been realised that to achieve higher distribution efficiency of irrigation water and thereby to achieve over all irrigation efficiency, it is necessary to have the minimum number of land holdings under each outlet and water courses/field channels of short lengths. To achieve this it is necessary to extend channels from present outlet of about 40 hectares to outlets to serve an area of about 8 hectares. This programme was taken up during the Sixth Five Year Plan. An outlay of Rs. 15.50 crores was made in the Sixth Five Year Plan for this work. But much less work could be carried out during the Sixth Five Year Plan period. It is proposed to complete this work in the command area of the existing projects during the seventh Five Year Plan period for which an outlay of Rs. 9 crores is provided.

(xii) Research and Development

4.1.5.22. Research and Development with Surveys and Investigations and designs etc. are required to be carried out during Seventh Five Year Plan also. Expenditures towards survey and investigations is now taken as committed "Non-Plan" item hence not included in Seventh Five Year Plan. Matching provision for Research and Development at a rate of one per cent of whole Seventh Plan is made. Planning Commission and Ministry of Irrigation also favour this need to support speedy and economical construction of projects. Actual experience of last 35 years is now available which needs to be analysed and improved upon through R and D works. This requirement is rather obligatory for any Development Programme like Irrigation, Agriculture, Industries etc. An outlay of Rs. 15 crores is provided for Water Development Services during the Seventh Five Year Plan. It is also proposed to actively associate the field of Centrally sponsored schemes like Remote Sensing techniques in collaboration with Space Application's Centre (ISRO) and other such programmes. Irrigation Projects both on-going and new needs timely and effective process for Survey and Investigations, Designs, Geological studies and clearance and also help from Research and Development Sector etc. Unless this is provided and speedy decisions and sanctions are given, the positive development and completion of planned schemes is not possible. Adequate outlay is therefore provided for matching with overall requirements of water Development Sector.

Sardar Sarovar Project

4.1.5.23. The Sardar Sarovar Project is an interstate multipurpose project where cost and benefit are to be shared by the participating States *viz.*, Madhya Pradesh, Maharashtra, Gujarat and Rajasthan in accordance with the decision of the Narmada Water Disputes Tribunal. The project envisages construction of the following main engineering works.

(i) A concrete gravity dam across the Narmada river near village Navagam in Gujarat with a gross storage of 9.5 milliard cum (7.67 maf) and a live storage of 5.00 milliard cum (4.72 maf) having spillway located in the centre of the dam to pass a design discharge of 98000 cumecs. (31.8 lakh cusecs) through 30 gates 23 Nos. of size 18.3 m × 16.76 m 7 Nos. of 18.3 m × 18.3 m. × 18.3 m.

(ii) A river bed power house comprising units (reversible type) of 200 MW each.

(iii) Canal head power house on the right bank comprising 5 units of 50 MW each.

(iv) Four rockfill dams and interlinking channels to create four ponds for re-regulation of the canal power house releases.

(v) A lined right bank main canal (Narmada Main Canal) with FSL of + 91.45 m (+ 300 ft.) at head and 445 kms. long upto the Gujarat-Rajasthan State border, the capacity at head being 1133 cumecs. (40,000 cusecs) which will taper down to 70.80 cumecs (2500 cusecs) at the Gujarat-Rajasthan border to irrigate across in Gujarat and Rajasthan.

(vi) A canal system covering a GCA of 34.3 lakh hectares out of which the CCA will be of about 21.2 lakh hectares. In all, there will be about 31 branch canals the discharge at the off-take points varying from 5 cumecs to about 300 cumecs. In case of 2 branch canals viz., Saurashtra Branch Canal and Kachchh Branch Canal, lengthy depression has to be crossed.

- Unit—I Dam and appurtenant Works.
- Unit—II Main Canal-Branches and distributories.
- Unit—III Hydro-power
- C. A. D. Drainage and conjunctive Use.

Shares towards Narmadasagar.

For this purpose power would be generated which in turn would be made use of to lift the canal water beyond the depression. Other works comprising distribution system drainage etc. All the branch canals distributories, minors and sub-minors are proposed to be lined upto 8 ha outlet works.

4.1.5.24. On receipt of the final decision of the Tribunal in December, 1979, the Government of Gujarat in February, 1980, the prepared the project report and estimates and submitted to the Central Water Commission for scrutiny and obtaining approval of the Planning Commission. After due scrutiny of the project in C. W. C. the project estimated to cost Rs. 4240 crores was discussed by the Technical Advisory Committee of the Planning Commission on 6th January, 1983 and was considered acceptable subject to some observations. The hydro-power component is cleared by the C. E. A.

4.1.5.25. Simultaneously considering the large magnitude of the project requiring huge financial resources, it has been posed for World Bank credit assistance through the Government of India. After prolonged discussions and negotiations an agreement has been signed for the Credit assistance of U. S. \$ 100 million and a loan of U. S. \$ 200 million total U. S. \$ 300 million for the Dam and power project an agreement has also been signed for the Credit assistance of U. S. \$ 150 million for water delivery and drainage project.

4.1.5.26. On the basis of detailed discussions with the World Bank Mission and also as a result of various studies mounted as suggested by the World Bank Mission additions and improvements were carried out in the earlier proposals. According to this, the latest estimate of the project works out to Rs. 5793 crores the break-up of which is as under I—

	Rs.	725	crores
	Rs.	1226	crores
	Rs.	2186	crores
	Rs.	691	crores
	Rs.	904	crores
	Rs.	61	crores
Total	Rs.	5793	crores

4.1.5.27. During the Seventh Five Year Plan period *i. e.* from 1985-86 to 1989-1990, it is proposed to achieve progress on major components of the project as under :

Unit-I : Dam

4.1.5.28. Main dam works will be taken up on hand in the year 1985-86 and by the end of 1989-90 about 52 lakh cubic metre of pre-cooled concrete will be laid. The dam will be raised to RL 65.00 M. in the river portion and to RL - 146.5 M on banks co-related with works of the main dam *viz.* crest gates elevators, instrumentation, installation of pumps etc. will also be taken up on hand.

4.1.5.29. During 1985-86 to 1989-90, rehabilitation of 246 villages (Gujarat 19 villages + Maharashtra 35 villages + Madhya Pradesh 192 villages) will be taken up on hand.

4.1.5.30. Work of rock-fill dams which is in progress will be completed in the year 1985-86.

Unit-II : Main Canal

4.1.5.31. The Main Canal is proposed to be taken up in two phases. Phase-I upto Mahi river crossing (up to Km. 143) and Phase-II, from Mahi river crossing to Gujarat-Rajasthan border (Km. 143 to Km. 443). During the Seventh Five Year Plan period work on both the phases will be in progress. The main canal will be completed in up to Km. 80.81 *i.e.* off take of Vadodara Branch. During Seventh Five Year Plan 45% work of phase-I and initial work of phase-II would be completed overall progress would be 33% of the total works of main Canal.

Unit III Hydro Power

4.1.5.32. Following works will be completed during 1985-86 to 1989-90.

(A) River Bed Power House

- (i) Excavation for exit tunnel, access tunnel, machine hall, pressure shaft etc ;
- (ii) Concrete lining of exit tunnel, draft tube tunnel ;
- (iii) Switch yard works ;
- (iv) About 90% of the works of Garudeshwar weir ;
- (v) Pen stock shell liners ;
- (vi) Excavation of tail race channel ;
- (vii) T. G. Sets will be obtained.

(B) Canal Head Power House

- (i) Excavation for canal head power house and appurtenant works ;
- (ii) Civil works of saddle dam and power house ;
- (iii) T. G. sets will be obtained.

4.1.5.33. Installation of T. G. sets for R. B. P. H. and C. H. P. H. will be continued.

Distribution System

4.1.5.34. During the Seventh Five Year Plan period, emphasis will be on the works in Phase-I area with a view to commence irrigation by 1992 when the main dam is expected to be raised to RL 300 ft. Phase-I area comprises area between Narmada and Mahi having a net C. C. A. of 4.28 lakh hectares. By the end of the Seventh Five Year Plan, it is planned to complete most of the branch canals,

about 75% of the distributories and about 30% of the minors sub-minors up to Vadodara Branch in Phase-I area. Works in areas beyond Vadodara branch and in Phase-II area *i. e.* area beyond Mahi will also commence but at a slower pace.

Share of participating States

4.1.5.35. The Sardar Sarovar Project is an inter-State projects, whose cost and benefits are to be shared by the participating States *viz.* Gujarat, Madhya Pradesh, Maharashtra and Rajasthan, Gujarat State will have both irrigation and power benefits while Madhya Pradesh and Maharashtra will have power benefits and Rajasthan will receive water for irrigation.

4.1.5.36. The total estimated cost of the entire project *i. e.* Rs. 5793 crores will be shared by the party states as under :

(Rs. in crores)

State 1	Irrigation 2	Power 3	Total 4
Gujarat	4520	181	4701
Rajasthan	141	..	141
Maharashtra	..	306	306
Madhya Pradesh	..	645	645
	<u>4661</u>	<u>1132</u>	<u>5793</u>

4.1.5.37. The total outlay for the Seventh Five Year Plan is worked out to Rs. 2041.90 crores. The statewise allocation of shares is as under :

(Rs. in crores)

State 1	Irrigation 2	Power 3	Total 4
Gujarat	1063.50	146.50	1210.00
Rajasthan	62.85 (83.55)	..	62.85
Maharashtra	..	247.20 (199.40)	247.20 (199.40)
Madhya Pradesh	..	521.85	521.85
	<u>1881.63</u> (1521.99)	<u>914.19</u> (783.50)	<u>2795.82</u> (2260.49)
Total	..	1126.35	2041.90

Karajan Project

4.1.5.38. This is a World Bank aided Project covered under Major Composite group. The scope of the project has been revised because of assistance from World

Bank so as to extend Government Canals upto Eight hectares blocks on an average. The latest revised estimated cost of the project is Rs. 15,324 lakhs for irrigation component. The planned irrigation potential of the project is 77,550 hectares.

4.1.5.39. The total expenditure of Rs. 8552.59 lakhs is likely to be incurred upto March, 1985. This will leave spill-over liability of Rs. 6771.41 lakhs in the Seventh Five Year Plan. An outlay of Rs. 3700 lakhs is provided for Seventh Five Year Plan.

Watrak Project.

4.1.5.40. This is a World Bank assisted Project under medium line of credit group. The latest estimated cost of this project is Rs. 4303 lakhs. The total expenditure of Rs. 2731 lakhs is likely to be incurred upto March 1985. This will leave spillover liability of Rs. 1572 lakhs in the Seventh Five Year Plan. An outlay of Rs. 950 lakhs is provided for the Seventh Five Year Plan.

Damanganga Project.

4.1.5.41. This is a multipurpose interstate project envisaging irrigation, industrial water supply and hydro-power generation. This project will benefit the areas of Gujarat and Union Territories of Dadra Nagar Haveli and Daman. This is also included under the Major Composite group of projects accepted by the World Bank for assistance. The latest estimated cost of the project is Rs. 13,226 lakhs. The canal works have been taken up right from the beginning of execution of the project so that benefits can accrue soon after completion of the dam works. The total expenditure of Rs. 106.70 lakhs is likely to be incurred upto March 1985. This will leave spillover liabilities of Rs. 2547 lakhs in the Seventh Five Year Plan. An outlay of Rs. 1400 lakhs as state share is provided in the Seventh Five Year Plan.

Sipu Project.

4.1.5.42. This is a World Bank-aided Project under Medium line of credit and is located in the dry tract of Banaskantha District. The National Agriculture Commission has made a special mention of this projects as having potential of an anti-desertification project. It is, therefore, proposed to give it a high priority. The latest revised estimated cost of the project is Rs. 7003.80 lakhs The total expenditure of Rs. 1941.13 lakhs is likely to be incurred upto March, 1985. This will have spillover liability of Rs. 5089.63 lakhs in the Seventh Five Year Plan. The project will be partly completed during the Seventh Five Year Plan. On account of foundation problems, the expenditure as planned, could not be incurred. To overcome this difficulty, detailed survey work is being carried out by the Government. Moreover, testing is being carried out at Roorkee for testing of foundation material against the liquification problem due to fine sand met in the foundation of earthen dam.

4.1.5.43. An outlay of Rs. 2000 lakhs is provided for this project in the Seventh Plan.

Saurashtra and Kachchh Coastal Area Development.

4.1.5.44. The entire coastal area of Saurashtra and Kachchh which is a very fertile and productive tract is affected by salinity ingress from Bhavnagar, Una, Madhavpura-Malia, Malia, to Lakhpat in a length of 1015 kms. Continuous heavy withdrawals of groundwater for the purpose of irrigation and water supply (Gound Water being the only source for the purpose) of Saurashtra and Kachchh combined with decreased recharge and poor rainfall conditions have created

problems of salinity ingress and inundation. Salinity in the ground water in the areas has assumed serious dimension since 1171. Currently, an area of as much as 7 lakh hectares is affected with a population of about 10 lakh. The number of wells affected comes to about 40,000. The number of villages affected comes to 534. Large scale migration has taken place deserting the lands and villages.

4.1.5.45. The high Level Committee headed by the Chief Secretary appointed to study and suggest remedial measures visited the area from Una-Madhavpur, Bhavnagar to Una and Madhavpur to Malia and Malia to Lakhpat. The Committee held discussions with M. Ps., M. L. As., and local Leaders regarding the serious problem. If timely and proper remedial measures are not taken, the entire Sauarashtra and Kachchh coastal belt will in the long run turn into a barren and deserted area. Looking to the gravity of the problem, the Committee recommended the following remedial measures to arrest the Ingress of Salinity of Sea water into coastal lands.

- 1 Management Techniques
- 2 Recharge Techniques ; viz ;
 - (i) Check dams, tidal regulator, bandharas ,
 - (ii) Recharge reservoirs and wells.
 - (iii) Afforestation.
 - (iv) Nala plugging.
3. Coastal land reclamation (leaching and soil additives).

4.1.5.46. The work of construction of various recharge and salinity control techniques has been taken up since November, 1978, in the reach between Una-Madhavpur. Many recharge measures such as check dams, tidal regulator, bandharas etc have been completed in this reach. Due to good rainfall during last four years, the water stored by these structures has helped in artificial recharge and pushing back the saline conditions towards the sea coast. The salinity level has come down remarkably in Chorwad and Kodinar area. Quality of water in the wells has also improved. About 11000 hectares of affected land in Una-Madhavpur area seems to have improved. Thus, the encouraging results obtained for Una-Madhavpur reach confirm that the techniques adopted are quite suitable.

4.1.5.47. The stored water in all these works recharge the ground water aquifers. Part of the stored water will be utilised to create irrigation potential by lift schemes on the periphery. Currently the total irrigation potential that can be created is roughly estimated to be of the order of 1,20,000 hectares (excluding Kachchh reach).

4.1.5.48. Most of the works of Madhavpur-Una reach are in progress under World Bank credit. Rest of the works in the reaches Una-Bhavnagar Madhavpur-Malia and Malia-Lakhpat will be non-World Bank works. The report of the HLC-II for Una-Bhavnagar reach for Rs. 168 crores is approved in principle by Government. The report of the HLC-II for the reach Madhavpur Dwarka-Malia costing Rs. 370 crores is finalised and approved by the Committee and is recommended to the Government for approval. The likely cost for the works of Malia-Lakhpat reach would be Rs. 150 crores. Thus the total cost for all the reaches will be Rs. 688 crores, which does not include the part of the project covered under World Bank Aid.

4.1.5.49. Looking to the type and size of the problem, it is necessary that at least the civil works such as check dams, tidal regulators, bandharas etc. have to be completed in a time bound programme so that further deterioration is prevented and the damage caused due to salinity is gradually reclaimed.

4.1.5.50. The outlays provided during the Seventh Five Year Plan are Rs. 24.00 crores for World Bank aided project and Rs. 10.00 crores for the remaining projects in irrigation sector. Whereas the World Bank aided part of the project will be completed during the Seventh Five Year Plan, only small beginning be made for other reaches.

Physical Targets.

4.1.5.51. It is proposed to create additional irrigation potential of 1.00 lakh hectares during the Seventh Five Year Plan. Out of this, the irrigation potential on account of Multipurpose and Major irrigation projects will be 0.57 lakh hectares, whereas through ongoing medium irrigation projects, potential of 0.33 lakh hectares will be created, whereas on account of other continuing programme, irrigation potential of 0.10 lakh hectares is proposed to be created. These details are shown in the table below —

Sr. No.	Category of the Project	Target of potential to be created during the Seventh Five Year Plan (lakh hectares).
1	2	3
1	Multipurpose and Major Projects	0.57
2	Medium ongoing projects.	0.33
3	Other Continuing Programmes	
	(A) Modernisation programme	
	(B) Salinity Ingress	0.10
	(C) Lift Irrigation	
Total :		1.00

STATEMENT

Schemewise outlays for the Seventh Five Year Plan 1985-90.

(Rs. in lakhs).

Sr. No.	No. and Name of the Schemes	Outlay
1	2	3
(A) Multipurpose Projects.		
IRG—1	Sardar Sarovar Project	106350.00
	Beneficiary State's share	83190.00
	Power	14650.00
	Total :	204190.00
IRG—2	Damanganga	1400.00
	U. T. Share	550.00
IRG—3	Panam	1000.00
IRG—4	Sabarmati	150.00
IRG—5	Banajsagar	250.00
	Total : (A) State Plan.	109150.00
	Beneficiary State's share	83190.00
	Power	14650.00
	U. T. Share	550.00
(B) Major and Medium Irrigation Projects		
<i>I. Major Schemes :</i>		
IRG—6	Karjan	3700.00
IRG—7	Watrak	950.00
IRG—8	Sipu	2000.00
IRG—9	Sukhi	1200.00
IRG—10	Zankhari	10.00
IRG—11	Sidumber	1.00
	Total : B (I)	7861.00

II. Medium Schemes.

IRG-12	Sukhbhadar	600.00
IRG-13	Machhundri	380.00
IRG-14	Kalubhar	400.00
IRG-15	Machhanala	61.30
IRG-16	Ver--II	121.00
IRG-17	Deo	570.00
IRG-18	Venu--II	477.00
IRG-19	Aji--II	390.70
IRG-20	Und (Jivapur)	900.00
IRG-21	Bhadar (PMS)	334.00
IRG-22	Aji--III	740.00
IRG-23	Mazam	370.00
IRG-24	Demi--II	180.00
IRG-25	Hadaf	180.00
IRG-26	Guhai	1300.00
IRG-27	Kelia	170.00
IRG-28	Jhuj	517.00
IRG-29	Uben	249.00
IRG-30	Harnav--II	105.00
IRG-31	Pigut	36.00
IRG-32	Vaidy	35.00
IRG-33	Nara	49.00
IRG-34	Sani	375.00
IRG-35	Amipur	94.00
IRG-36	Godadharoi	12.00
IRG-37	Hiran (S)-II	12.00

1	2	3
IRG-38	Jangadia	60.00
IRG-39	Bhukhi	36.00
IRG-40	Rajawal	77.00
IRG-41	Mitti (Kachchh)	10.00
IRG-42	Lakhigam	20.00
IRG-43	Kabutari	67.00
IRG-44	Sankara	10.00
IRG-45	Dholi	224.00
IRG-46	Umaria	95.00
IRG-47	Shedhi Branch-Ex. MRBC	300.00
IRG-48	Lift Irrigation	125.00
IRG-49	Karmal	42.00
IRG-50	Mathal	150.00
IRG-51	Chopadvav	20.00
IRG-52	Borachia	75.00
IRG-53	Don	40.00
IRG-54	Khambhada	265.00
IRG-55	Bangawadi	180.00
IRG-56	Hamirpara	96.00
IRG-57	Sonmati	27.00
IRG-58	Raidy	63.00
IRG-59	Rangamati	62.00
IRG-60	Vrajmi	150.00
IRG-61	Dai (Minsar)	20.00
IRG-62	Lakhanka	13.00
IRG-63	Edalwada	20.00
IRG-64	Mukteshwar	172.00

1	2	3
IRG-65	Fategadh	11.00
IRG-66	Falla (Kankavati)	125.00
IRG-67	Kakadiamba	51.00
IRG-68	Malgadh	21.00
IRG-69	Kalagogha	16.00
IRG-70	Ishwaria	20.00
IRG-71	Nyari--II	170.00
IRG-72	Und--II	2.00
IRG-73	Ozat (Dhafed)	2.00
IRG-74	Veradi	1.00
IRG-75	Machhu--II	1250.00
IRG-76	Men	90.00
IRG-77	Ani	90.00
IRG-78	Goma	100.00
IRG-79	Valan	8.00
IRG-80	Dam on Nani Vahial	1.00
IRG-81	Bakrol	3.00
IRG-82	Kaniyad	1.00
IRG-83	Dared (Nalana)	1.00
IRG-84	Sangavadi	1.00
IRG-85	Ramnath	1.00
IRG-86	Aji--IV	1.00
IRG-87	Gunda	1.00
IRG-88	Mithapur	1.00
IRG-89	Machhu--III	1.00
IRG-90	Ozat--II	1.00
IRG-91	Kali--II	618.00

1	2	3
IRG-92	Uben-II	1.00
IRG-93	Kajipur	1.00
	New schemes of Seventh Plan	90.00
Total : B—(II)		13757.00
C. Other Programmes		
IRG—94	Drainage	2125.00
IRG—95	Modernisation of Canals	
(i)	Modernisation of Canal-Ukai-Kakrapar	900.00
(ii)	Medium line of Credit	3900.00
(iii)	Modernisation of Canals (other than World Bank)	485.00
Total—IRG—95		5285.00
IRG—96	Flood Control and Anti Erosion	1200.00
IRG—97	Extension of Channels from 40-Ha. to 8-Ha. chak	900.00
IRG—98	Extension and Improvements	300.00
IRG—99	Water Development Services	1500.00
IRG-100	Prevention of Salinity Ingress—Saurashtra Coastal Project (World Bank aided)	2400.00
IRG-101	Prevention of salinity Ingress (Other than World Bank)	1000.00
IRG-102	Special Requirements for completed Major/Medium Schemes	725.00
Total—C		15435.00
+ Grand Total—(A + B + C) ..		146203.00
+ Beneficiaries state's share ..		83190.00
+ Power ..		14650.00
U. T. ..		550.00

4.2. MINOR IRRIGATION

4.2.1. Introduction

4.2.1.1. Minor irrigation plays a very important role in the irrigation system. The short gestation period of these projects, low cost per scheme and location in remote areas favour minor irrigation schemes over major and medium schemes. Even from the point of view of employment angle, minor irrigation schemes yield significant results.

4.2.1.2. The minor irrigation works are simple in nature and their planning and execution are comparatively quicker and they have greater adaptability even in difficult locations particularly where bigger schemes are not possible. Minor irrigation works comprise of the following :

—Tanks, Bandharas, Check dams and Percolation tanks.

—Tubewells

—Lift Irrigation.

4.2.2. Minor Irrigation Works Tanks and Bandharas

4.2.2.1. Minor Irrigation tanks are usually constructed across small rivers and streams and reservoirs formed by construction of earthen dam and waste weir is provided for the disposal of the excess floods. Irrigation is done through net work of canals and distributories.

Check Dams and Percolation Tanks

4.2.2.2. Check dams are small works constructed for storing post monsoon flow across small streams. These works have no direct irrigation potential but they maintain the ground water table at reasonable level. percolation tanks are small earthen bunds constructed to conserve the rain water during monsoon from its catchment area which helps in raising the water levels in the surrounding dug wells. No canals are taken out from such tanks. However, some irrigation can be done on the periphery of such tanks by lifting the water.

Tubewells

4.2.2.3. Tubewells are the most assured source of supply of water for irrigation. Tubewells tap the deep aquifers of ground water through slotted pipes lowered in drilled holes. The water is lifted out by pumps and distributed through pipes lines or open channels. The State Government has set up the Gujarat Water Resources Development Corporation Ltd. for the development of ground water through tubewells. The GWRDC obtains institutional finance through NABARD. The State Govt. provides 20 percent as share capital contribution to GWRDC and NABARD gives loans to the GWRDC to the tune of 80 percent of the estimated cost of the project which is refundable in agreed period.

Other Minor Irrigation Works-Dug wells, shallow Tubewells etc.

4.2.2.4. Usually dug wells are privately owned and they fall under the purview of agricultural department. Institutional credit is the backbone of ground water development and it is necessary that concerted efforts be made to step up the flow of credit to the maximum possible extent.

Co-operative Lift Irrigation

4.2.2.5. Co-operative lift irrigation societies are taken up either on banks of rivers or nalas where sufficient water is available in monsoon as well as on private wells. This is a very useful scheme for the welfare of small farmers in backward areas. The Contribution of Government is limited to 45 percent of the total project cost as subsidy 45% of the cost is to be obtained by way of loan from financial institutions and 10 percent of the cost is by way of share capital contribution from the members. In the tribal areas, however, 75% of the project cost is provided as subsidy.

Lift irrigation (through GWRDC)

4.2.2.6. Lift irrigation schemes are taken up from the reservoir or canals where sufficient water is available. The GWRDC obtains the institutional finance through NABARD. The State Government provides 20 percent as share capital contribution to GWRDC and NABARD gives loans to the GWRDC for remaining 80 percent of the estimated cost of the scheme.

4.2.3. Review of Progress during the Sixth Plan

4.2.3.1. The details of potential created and actual utilisation through various sources are as under :

(in '000 hec.)

Source	Base Year level 1979—80	Sixth Plan Target (level)	Likely achievement of the end of 1984—85
1	2	3	4
Potential Created			
<i>Underground</i>			
Dug Wells	1437	1557	1529
Lift Irrigation	47	60	64
Ground Water tubewells	124	250	221
Total	1608	1867	1814
Surface tanks and bandharas	128	165	163
Utilisation			
<i>Underground</i>			
Dug Wells	1293	1401	1374
Lift Irrigation	28	33	39
Ground water tubewells	65	160	128
Total	1386	1594	1541
Surface tanks and bandharas	80	100	100

4.2.4. Strategy and Priorities adopted the Seventh Five Year Plan

4.2.4.1. The strategy and priority adopted for minor irrigation schemes in the Seventh Plan are as under :

- Tribal and backward areas of the State would be accorded high priority. Efforts would be made to provide irrigation facilities as far as practicable even to such areas where small pockets of such population exist.
- Priority would also be given to areas classified as drought prone areas as also areas with high proportion of scheduled caste cultivators.
- Areas which are not covered under the command of Narmada Project would also be given preference.
- Priority would be given for irrigation tanks and bandharas which give direct and immediate benefits of irrigation. This is followed by percolation tanks and cheek dams, which give indirect benefits by raising water levels in the wells in the nearby areas.
- Exploitation of ground water to supplement surface irrigation and conjunctive use of ground water in irrigated commands with a view to increase available water for irrigation.
- Survey, research and development of ground water resources including recharge.
- Stepping up mobilisation of institutional investment for ground water development to the maximum extent possible through simplification and streamlining the procedures for entering and processing of loan applications.

4.2.5. Programmes for the Seventh Year Plan

4.2.5.1. An outlay of Rs. 13455 lakhs has been provided for the Seventh Plan-1985-90, the broad breakup of which is as under :

(Rs. in lakhs)

Programme 1	Outlay for Seventh Plan 2
Irrigation Department	
Tanks and Bandharas and Percolation Tanks etc.	7751
Tubewells and Ground Water	
Surveys and Investigations	4989
Total : ID Programme	12740
Co-operation Department	
Co-operative Societies	
Lift Irrigation	108
Agri. and Rural Development Department	
Other minor irrigation works	607
Total—Minor Irrigation	13455

4.2.5.2. With the proposed outlay of Rs. 13455 lakhs for the overall minor irrigation programme, it is proposed to create additional irrigation potential of 4.40 lakh hectares and utilisation of 2.60 lakh hectares during the Seventh Plan. The details are as under :

(Lakh hec.)

Source	Potential	Utilisation
1	2	3
1 Surface Water (Tanks and Bandharas)	1.02	0.60
2 Tube-wells	0.70	0.42
3 Dug-wells, shallow tubewells etc. (Agri. deptt.)	2.50	1.47
4 Lift Irrigation Co-operative (Co.-op. deptt.)	0.18	0.11
Total :	4.40	2.60

Surface Minor Irrigation

4.2.5.3. The outlay of Rs. 7153 lakhs provided for this programme includes Rs. 3590 lakhs for spillover works of the Sixth Plan where as an outlay of Rs. 1563 lakhs is for new works/programmes to be taken up in the Seventh Plan. The broad break-up of the new schemes/Programmes proposed is as under :

Item	Outlay provided for Seventh Plan (Rs. in Lakhs)
Irrigation tanks and Bandharas	893
Percolation tanks	370
Check dams	300
Total	1563

4.2.5.4. It is targetted to create an additional Irrigation potential of 1.02 lakh hectares through surface irrigation during the Seventh Plan.

Tube-wells

4.2.5.5. It is planned to complete in all 1200 tubewells during the Seventh Plan. Out of these, 960 tubewells will be normal tubewells whereas 240 tubewells will be redrilled and augment tubewells, It is planned to create additional irrigation potential of 0.70 lakh Ha. through these efforts during the Seventh Plan period.

4.2.5.6. An outlay of Rs. 4989 lakhs has been provided for the Seventh Plan for Tubewells programme. The fund that would be available from NABARD is estimated at Rs. 3845 lakhs.

Lift Irrigation through G. W. R. D. C.

4.2.5.7. An outlay of Rs. 598 lakhs is proposed for this programme in the Seventh Plan. The funds that would be available through NABARD is estimated at Rs. 860 lakhs. It is proposed to complete 14 ongoing and 60 new Schemes during the Seventh Plan.

Other Minor Irrigation Works (Agriculture and Rural Deptt.)

4.2.5.8. An outlay of Rs. 607 lakhs is provided for these programmes in the Seventh Plan. It is proposed to create additional irrigation potential of 2.50 lakh hectares. The physical targets would be as under :

Dugwells including borewells (Nos.)	50,000
Private shallow tubewells (Nos.)	2,000
Energisation of pump sets (Nos.)	1,00,000

Grant of subsidy to Harijan/S. C. cultivators for irrigation facilities

4.2.5.9. The object of the scheme is to grant subsidy to Harijan and S. C. cultivators for construction of new dug wells and installation of oil engine/electric motors/pump sets so as to enable them to raise agriculture production by increasing irrigation facilities and thereby increase their income.

4.2.5.10. Under this scheme likely achievement up to the end of 1984-85 is 1077 wells and 1901 pump sets. The existing rate of subsidy during the Sixth Plan is proposed to be continued during the Seventh Plan period. The same is as under :

- New well 50% of cost limited to Rs. 4,000/-
- Oil engine/Turbine pump : 50% of cost limited to Rs. 3,500/-.
- Electric Motor : 50% of cost limited to Rs. 2,000/-.
- Well with lesser dimension limited to Rs. 1200/-.
- Failed wells : (a) Remission of total interest. (b) Remission of 20% of standing loan.

4.2.5.11. In the Seventh Plan an outlay of 140 lakhs is provided.

Grant of Subsidy to tribal cultivators for irrigation facilities (TASP) including wells, pumpsets and pipeline

4.2.5.12. This scheme is proposed for giving subsidy to tribal farmers in tribal area for construction of new wells, installation of oil engines, electric motors, pumpsets and pipeline for increasing irrigation facilities and thereby increase their income.

4.2.5.13. Under this scheme upto the end of 1984-85 subsidy was granted for 2462 wells and 3193 pumpsets and pipe line in the fields of 84 adivasi cultivators.

4.2.5.14. The existing rate of subsidy during the Sixth Plan is proposed to be continued during the Seventh Plan.

4.2.5.15. In the Seventh Plan an outlay of 160 lakhs is provided.

Grant of subsidy for irrigation facilities to S. T. cultivators residing outside Triba Area Sub-Plan.

4.2.5.16. The object of this scheme is to grant subsidy to adivasi farmers and other scheduled tribe farmers residing outside tribal areas to enable them to raise agricultural production by increasing irrigation facilities and thereby increase their income. The existing rate of subsidy during the Sixth Plan, is proposed to be continued during the Seventh Plan.

4.2.5.17. In the Seventh Plan an outlay of Rs. 50 lakhs is provided.

Grant of Subsidy to the farmers other than SC/ST farmers for failed wells

4.2.5.18. The Harijan cultivators are granted subsidy for failed wells under the special component plan. The tribal farmers are also given subsidy. To encourage all others farmers also who may construct wells through institutional finance it is proposed to grant this subsidy to farmers other than Harijans, Adivasi and backward farmers for failed wells in all districts of the State. Under this scheme, upto the end of 1984-85, subsidy has been granted for about 60 failed wells. The existing subsidy rate during the Sixth Plan is proposed to be continued during the Seventh Plan. The same is as under :—

—Remission of total interest.

—Remission of 20% outstanding loan.

4.2.5.19. In the Seventh Plan an outlay of Rs. 137.00 lakhs is provided for grant of subsidy for 3135 failed wells.

Improvement of irrigation wells by blasting and boring

4.2.5.20. The programme for the utilisation of the underground water for the minor irrigation purpose is being carried out by Gujarat State Land Development Corporation.

An outlay of Rs. 120 lakhs is provided in the Seventh Plan, the physical target being 4.04 lakh shots.

4.2.6. Co-operative Lift Irrigation Societies

4.2.6.1. Lift irrigation schemes are taken up either on the banks of the river or nalas where sufficient flow of water is available in monsoon or on private wells. Minor irrigation activities are organised in the form of lift Irrigation societies. The Government gives 45 percent cost of the scheme as sub-sidy which is raised to 75% in tribal areas. The subsidy is given to the extent of Rs. 1700 per acre. Government also gives managerial subsidy for employing technically competent hand to the extent of Rs. 3,000 each year for first and second year and Rs. 2,000 each year for third and fourth year in tribal areas. It is proposed to give interest free loan to the extent of Rs. 5,000 or 5% of the estimated cost whichever is less in tribal areas.

4.2.6.2. In order to encourage more and more members of scheduled caste to join and take up the co-operative, lift irrigation scheme, the State Government gives 50% loan towards the share capital contribution to the extent of Rs. 50 to purchase

2 shares each of Rs. 50 to become a member. During the Sixth Plan, 2004. Lift Irrigation societies have been registered with command area of 27,461 hectares.

Programme for Seventh Plan

4.2.6.3. During the Seventh Plan, it is proposed to organise 180 co-operative lift irrigation societies with a proposed outlay of Rs. 108 lakhs. It is proposed to bring 18,000 hectares of land under irrigation. It is also proposed to give financial assistance to the extent of 90% of the total cost of the scheme to the limit of Rs. 1700 per acre. A provision of Rs. 70 lakhs is made for subsidy in the Seventh plan. A Provision of Rs. 30 lakhs is made for creation of technical cell in the Seventh plan. It is also proposed to give interest subsidy at the rate of 5% for the loans obtained from financial institution for the first 4 years. Rs. 3 lakhs have been provided for the same. It is also proposed to provide working capital loan at the rate of 10% of the estimated cost of the scheme. Rs. 5 lakhs have been provided for this purpose

APPENDIX

Selected Targets and Achievement.

Sr. No.	Item	Unit	Level of achievement at the end of					
			1979-80	1983-84	1984-85 (base year level)	1980-90 cummu- lative	Net Target	
1	2	3	4	5	6	7	8	
1 (A) Potential Ground Water								
1.	Ground Water Tube-wells (ID)	000' HA	124	209	221	291	70	
2.	Dugwells (A&RDD)	,,	1437	1509	1529	1779	250	
3.	Lift Irrigation (Coop. Deptt)	,,	47	60	64	82	18	
Total (A)			1608	1778	1814	1232	338	
(B) Surface water tanks & Bandharas(ID)								
			000' HA	128	159	163	268	102
Total (A+B)			1	1736	1937	1977	2420	440
2. (A) Utilisation								
Ground Water								
1.	Ground water tubewells (ID)	,,	65	122	128	170	42	
2.	Dugwells (A&RDD)	,,	1293	1357	1374	1521	147	
3.	Lit Irrigation (Coop. Deptt.)	,,	28	36	39	50	11	
Total (A)			1386	1515	1541	1741	200	
(B) Surface water tanks and Bandharas (ID)								
			,,	80	95	100	160	60
Total (A/B)			1466	1610	1641	1901	260	

STATEMENT—I

Schemewise outlays for the Seventh Five Year Plan 1985-90

(Rs. in lakhs)

Sr. No. 1	No. and name of the schemes 2	Outlay 3
IRRIGATION DEPARTMENT		
1	MNR—1 Tanks and Bandharas, Check dams and percolation tanks, etc.	7751.00
1	MNR—2 Tubewells and ground-water survey and investigations	4989.00
	Sub-Total (ID) ..	12740.00
A. AND R. D. DEPARTMENT		
3	MNR—3 Grant of Subsidy for Harijan, SC cultivators for irrigation facilities	140.00
4	MNR—4 Grant of subsidy for tribal cultivators for irrigation facilities including pumps and pipeline	160.00
5	MNR—5 Grant of subsidy for irrigation facilities to scheduled tribes farmers residing outside tribal areas	50.00
6	MNR—6 Subsidy to farmers other than scheduled castes and scheduled tribes for failed wells	137.00
7	MNR—7 Improvement of irrigation wells by blasting and boring	25.00
8	MNR—8 Improvement of irrigation wells by blasting and boring for scheduled caste cultivators	45.00
9	MNR—9 Improvement of irrigation wells by blasting and boring for scheduled tribes farmers	50.00
	Sub-Total—(A and RDD) ..	607.00
CO-OPERATION DEPARTMENT		
10	MNR—10 Co-op. Lift Irrigation (a) Subsidy	70.00
11	MNR—12 Creation of Technical Cell for Co-op. Lift Irrigation (a) Subsidy.	30.00
12	MNR—12 New Scheme Interest Subsidy for loan to lift Irrigation societies (a) Subsidy.	3.00
13	MNR—13 Working Capital loans to lift Irrigation Societies (a) Loan.	5.00
	Sub-Total Co-Op. Deptt.	108.00
	Grand Total :	13455.00

4.3. COMMAND AREA DEVELOPMENT PROGRAMME

4.3.1. Introduction

4.3.1.1. The concept of command area development programme emerged from the need to bridge quickly the gap between the potential created through major and medium irrigation projects and its utilisation. It was also partly in response to lags in agricultural production in irrigated lands as compared to the planned projections.

4.3.1.2. Initially, two Command Area Development Authorities were created in 1974 for carrying out works in the command areas of the Ukai-Kakrapar project and Mahi-Kadana Project. The Shetrunji project was also included, in 1975. Third Command Area Development Authority has been constituted since 1980. 8 more projects have been included in the programme. Thereafter one more Command Area Development Authority has been constituted since 1983, and the State is divided into 4 zones and each zone is served by Command Area Development Authority of the area. These authorities were expected to ensure more efficient operation of the irrigation system, accelerate construction of field channels and drains, and land shaping and land levelling, exploitation of ground water through tube-wells, adoption of suitable cropping pattern etc. During the Sixth Plan the introduction of rotational delivery system, setting up of water co-operatives, modernising canal system and setting up of water management institution have been among the measures taken to improve the rate of utilisation.

4.3.1.3. Even so, the gap between created potential and utilisation continues to be large. At the end of Sixth Plan period, the potential expected to be created under major and medium irrigation projects would be about 10.81 lakh hectares. Against this, the utilisation is expected to be about 7 lakh hectares. The Seventh Plan strategy would be to bridge the gap between the potential and actual utilisation.

4.3.2. Review of Progress and Performance during the Sixth Plan.

4.3.2.1. The Important activities under the programme are :

- Field channels
- Land levelling
- Field drains and
- Warabandhi

The physical targets and achievement during the Sixth Plan are as under :-

Programme	(Lakh hectares)		
	1979-80 base year	Sixth Plan target level	Likely cumulative achievement at the end of Sixth Plan.
Field channels	3.89	6.71	5.47
Land levelling	0.51	1.35	1.012
Field drains	0.01	1.45	0.33
Warabandhi	0.02	0.80	0.98

4.3.2.2. The likely achievement in respect of field channels, land levelling and field drains at the end of Sixth Five Year Plan would be lower than the targets. These works are being carried out under Land Improvement Act. These works are to be carried out on behalf of cultivators at their cost. Consent of at least 51% of cultivators is required to be obtained before the work of field channels could be taken up. The cultivators are required to bear 50% of the cost of construction of field channels. While the entire cost of land levelling is required to be borne by the cultivators, small and marginal farmers get some subsidy depending upon fulfilment of certain criteria. Cultivators have generally been reluctant to give consent of taking up the works of field channels and land levelling.

4.3.3. Strategy and Policy for the Seventh Plan

4.3.3.1. By the end of Sixth Five Year Plan, the irrigation potential created would be about 10.81 lakh hectares. Against this, the area served with field channels would be hardly 5.47 lakh hectares. In addition to this the irrigation potential to be added during the Seventh Plan period would be one lakh hectare. It has been proposed to cover entire backlog of the existing projects and additional irrigation potential created during Seventh plan under the CAD programme to use optimally the existing irrigation facilities.

4.3.4. Programmes for the Seventh Plan

4.3.4.1. In order to cope up with the accelerated programme, it is proposed to strengthen the organisation at State and field level. It is expected that Government of India will share the expenditure on a matching basis. An outlay of Rs. 463 lakhs is proposed as State Share in the Plan.

On Farm Development Works.

4.3.4.2. The important activities under this programme are :

- (i) Field channels
- (ii) Land levelling and
- (iii) Field drains.

Warabandhi/Rotational irrigation system, though not part of the on farm development works, helps in better utilisation of the irrigation water. Hence provision for Warabandhi/Rotational irrigation system is also made under this programme.

4.3.4.3. It is proposed to include all the major (except Narmada) and the medium irrigation projects having C.C.A. 2000 Ha. to 10000 Ha.) already completed and under construction at present under the CAD programme..

4.3.4.4. Based on the above considerations provision for CAD programme in respect of irrigation projects already completed, expected to be completed by end of Sixth Five Year Plan and on going projects which are to spill over into the Seventh Five Year Plan is proposed in the Seventh Five Year Plan as under :

(in lakh hectares)

Activity	Ultimate area	Area expected to be covered by the end of Sixth Five Year Plan	Area to be covered during the Seventh Five Year Plan	Cost per Hectare	Total cost (Rs. in lakhs)
1	2	3	4	5	6
Field Channels	21.17	5.47	6.56	1,000	6560
Land Levelling	3.33	1.012	1.24	3,000	3720
Field Drains	2.52	0.33	1.33	600	798
Warabandhi	21.17	0.98	6.85	350	2400

4.3.4.5. The work of construction of field channels and cost of introduction of warabandhi is being borne by the Government. But 50% central assistance is available for construction of field channels and introduction of Warabandhi system in irrigation. Hence, an allocation of Rs 4481.50 lakhs for construction of field channels and introduction of Warabandhi system of irrigation is provided as state plan outlay. Central assistance for land levelling and construction of field drains is not available. These works do not fall under the community activity and entire cost of carrying out these works is required to be borne by the beneficiaries. Hence, it is proposed to obtain loan from institutions like NA. B. ARD on behalf of the beneficiaries for carrying out these activities hence an allocation of Rs. 4527.81 lakhs is proposed to be made outside the plan on these activities.

Science and Technology Reserach and Development

4.3.4.6. Various studied, experiments and research activities and adaptive trials would need to be taken up so as to make optimum utilisation of the available water resources with a view to get maximum agricultural production per unit of land and per unit of water. Such activities could be as under:—

- To study water losses by seepage in earthen and lined field channels including research in lining materials.
- To study soil test cropresponse with a view to grow suitable crop depending on type of the soil available.
- To conduct adaptive experiments for new crops under irrigated conditions.
- To conduct adaptive trials for improved varieties of crops.
- Evaluation programme.

4.3.4.7. These activities may need Rs. 20 lakhs. 50% central assistance is available for these activities. Hence, an allocation of Rs. 10 lakhs is provided for these activities as state plan outlay.

Education and Training

4.3.4.8. The objectives of the programme are as under :—

—To demonstrate water use and management practices and also the proper use of irrigation water, fertilisers and improved seeds for multiple cropping for maximisation of agricultural production.

—To impart training to the farmers in improved methods of cultivation by use of improved agricultural implements and farm technology for getting maximum agricultural production.

The provision required for various activities to achieve the objects stated above would as under :

	(Rs. in lakhs)
(i) Setting up Soil and water management centre.	10
(ii) Education through agricultural extension	40
(iii) Education through Publicity	10
(iv) Demonstration of various agricultural practices on farmers' field.	40
	<hr/> 100 <hr/>

4.3.4.9. 50% central assistance is available for the programme under education and training. Hence, an allocation of Rs. 50 lakhs is provided as State plan outlay.

Setting up of Water Co-operative Societies

4.3.4.10. It is proposed to bring about 3.75 lakh hectares of irrigated command area under water co-operative activity. Each water co-operative society may cover about 150 hectares of area. Each society may be given assistance of Rs. 10,000. This would cost Rs. 250 lakhs. Central assistance for this activity is not available. Hence, an outlay of Rs. 250 lakhs is provided for this activity as state plan outlay.

Conjunctive Use of Ground and Surface Water

4.3.4.11. Conjunctive use of ground and surface water is envisaged in the command areas of the irrigation projects so as to

—lower ground water level,

—augment canal water with ground water,

—supply water for crops during canal closure and

—Supply water to lands having higher level in the command areas.

4.3.4.12. It is proposed to drill tubewells in the command areas. This would cost about Rs. 20 lakhs. Central assistance is not available for this activity. Hence, an outlay of Rs. 20 lakhs is provided as state plan outlay.

Introduction of Sprinklers/Drip System of Irrigation as Adaptive trial

4.3.4.13. With a view to encourage cultivators to adopt sprinklers and drip system of irrigation and to educate them in raising with this system, it is proposed to demonstrate use of sprinklers/drip irrigation system on farmers' field as adaptive trial. This programme would cost Rs. 35 lakhs. 50% central assistance is available for this activity. Hence, an outlay of Rs. 17.5 lakhs is provided as state plan outlay.

Reclamation of saline land in command areas of the irrigation projects—Pilot project.

4.3.4.14. With the introduction of irrigation and bad management of irrigation system, good agricultural land gets turned into saline. Such land is on increase. With a view to make studies to reclaim such land economically, it would become necessary to set up a pilot project. This may cost Rs. 25 lakhs. Central assistance is not available for this activity. An outlay of Rs. 25 lakhs is provided for this activity in state Plan.

Soil Survey of the Command areas of the Irrigation projects.

4.3.4.15. Soil surveys of the command areas of the completed projects becomes necessary sometime after introduction of irrigation, with a view to suggest cropping pattern in the changed circumstances. It is expected that about 3 lakh hectares may need post irrigation soil survey. This may cost about Rs. 300 lakhs. 50% central assistance for this work is available. Hence, an outlay of Rs. 150 lakhs is provided in the state plan.

Establishment of Water and Land Management Institute.

4.3.4.16. In order to build up a professional cadre of water and land management, a training centre--Water and Land Management Institute (WALMI) has been set up at Gandhinagar. It is expected that the cost of construction of building, procurement of equipment, vehicles and other material and expenditure on staff and activities related to training programmes would be Rs. 600 lakhs during the period of Seventh Plan. Central assistance for this is not available but assistance of Rs. 600 lakhs would be available from the USAID and World Bank. An outlay of Rs. 600 lakhs is provided as state plan outlay.

4.3.4.17. The allocation made for the CAD programme during the Seventh Five Year Plan for the different activities are as under :—

(Rs. in lakhs)

Activity	Seventh Plan Outlay		
	Total Programme.	State outlay.	G. O. I. Assistance
1	2	3	4
1. Establishment of CAD organisation.			
a. At State Government level.	236.00	118.00	118.00
b. At field level.			
(i) A. D. C.'s office.	440.00	220.00	220.00

1	2	3	4
(ii) Administrative set up for carrying out OFD works.	250.00	125.00	125.00
Sub-Total--1.	926.00	463.00	463.00
2. On farm development works.			
a. Field channels	6563.00	3281.50	3281.50
b. Land levelling	3729.30*	..	..
c. Field drains.	798.51*	..	..
d. Warabandhi.	2400.00	1200.00	1200.00
Sub-Total--2	13490.81	4481.50	4481.50
3. Science and Technology.	20.00	10.00	10.00
4. Education and Training.			
a. Setting up soil and water management centre.	10.00	5.00	5.00
b. Education through agricultural extension.	40.00	20.00	20.00
c. Education through publicity.	10.00	5.00	5.00
d. Demonstration of various agricultural practices on farmers field.	40.00	20.00	20.00
Sub-Total-4	100.00	50.00	50.00
5. Setting up water co-operative societies.	250.00	250.00	..
6. Conjunctive use of ground and surface water	20.00	20.00	..
7. Introduction of sprinklers/drip system of irrigation (Adaptive trial).	35.00	17.50	17.50
8. Reclamation of saline land in command areas of irrigation projects (pilot project).	25.00	25.00	..
9. Soil surveys of the command areas of irrigation projects.	300.00	150.00	150.00
10. Establishment of water and land management institute.	600.00@	600.00@	..
GRAND--TOTAL	15766.81	6067.00	5172.00

* Outside Plan-Loan from NABARD.

@ Includes W. B./USAID assistance of Rs. 600 lakhs.

4.3.4.18. Out of the total programme of Rs. 15766.81 lakhs for the Command Area Development programme during the Seventh Plan allocation proposed under the state plan outlay is Rs. 6067 lakhs. It is expected that an assistance of Rs. 5172 lakhs would be made available by the Government of India. An amount of Rs. 4527.81 is proposed to be obtained as loan from the NABARD on behalf of beneficiaries for carrying out work of land levelling and construction of field drains.

STATEMENT

Command Area Development Programme.

Schemewise Outlays for the Seventh Five year Plan 1985-90

(Rs. in lakhs)

Sr. No.	No. and Name of Scheme.	Outlay
1	2	3
1.	C. A. D. 1. Establishment of organisation	
	(a) At State Government level	118.00
	(b) At field level	
	(i) A. D. C's Office	220.00
	(ii) Administrative set up for carrying out O. F. D. works	125.00
	Sub-Total	463.00
2.	C. A. D. 2. On farm Development works.	
	(a) Field channels.	3281.50
	(b) Warabandhi	1200.00
	Sub-Total :	4481.50
3.	C. A. D. 3. Science and Technology.	10.00
4.	C. A. D. 4. Education and Training.	
	(a) Setting up Soil and Water Management centre.	5.00
	(b) Education through agricultural extension	20.00
	(c) Education through publicity.	5.00
	(d) Demonstration of various agricultural practice on farmers field.	20.00
	Sub-Total :	50.00

Sr. No.	No. and Name of Scheme.	Total
1	2	3
		4
5.	C. A. D. 5. Setting up water co-operative societies.	250.00
6.	C. A. D. 6. Conjunctive use of ground and surface water	20.00
7.	C. A. D. 7. Introduction of sprinkler/drip system of Irrigation (Adaptive trial)	17.50
8.	C. A. D. 8. Reclamation of saline land in Command areas of irrigation projects (Pilot projects).	25.00
9.	C. A. D. 9. Soil surveys of the command areas of irrigation projects.	150.00
10.	C. A. D. 10. Establishment of water and land management institute.	600.00
Grand Total :		6067.00

GUJARAT

ELECTRICITY

BOUNDARIES:
 INTERNATIONAL
 STATE / UNION TERRITORY
 DISTRICT

Km 40 20 0 40 80 Km
 Miles 16 0 16 32 48 64

EXISTING BOARD'S/LICENCES
 PROPOSED OR UNDER PROGRESS

POWER STATION
 POWER STATION
 POWER STATION
 STATIONS

MISSION LINES
 20/132 K.V. LINES
 20/132 K.V. LINES
 SED UNDER VII PLAN

SINGLE CIRCUIT
 DOUBLE CIRCUIT

MAP OF INDIA WITH THE PERMISSION OF THE
 GOVERNMENT OF INDIA
 WATERS OF INDIA EXTEND INTO THE SEA TO A DISTANCE OF TWELVE NAUTICAL MILES
 FROM THE APPROPRIATE BASE LINE.
 THE CORRECTNESS OF INTERNAL DETAILS RESTS WITH THE PUBLISHER.

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5. POWER DEVELOPMENT

5.1. Introduction

5.1.1. Electricity is a basic necessity of any modern society. The growth in demand for electricity in India since independence has been phenomenal. In spite of energy crisis and the development of other sources of energy, the demand for electric power will continue to grow during the Seventh Plan. The development of power sector therefore, continues to be accorded the highest priority.

5.1.2. The progress of any society is still measured in terms of per capita electricity consumption. In the advanced countries, the per capita consumption of electricity is of the order of 4000 to 6000 units. It has tended to remain stagnant at this level on account of the impact produced by the energy crisis triggered by the oil crisis in 1974. In the underdeveloped countries, the per capita consumption is of the order of 350 units. The per capita consumption in China was 320 units in 1980, in contrast to 131 units in India.

5.1.3. The per capita consumption in Gujarat was only 52 units in 1960-61 but has risen rapidly to 245 units in 1983-84. The actual total sale of electrical energy has gone up by more than 16 times.

5.1.4. Since the inception of Gujarat State in May, 1960, substantial resources (between 27 to 29 per cent) of the total plan provision of each successive plan commencing with the Third Five Year Plan has enabled doubling of the installed generating capacity in the State at the end of each successive Five Year Plan period from the Third Five Year Plan onwards.

5.1.5. The progress achieved since 1960 is summarised in the following table :

Year	Installed capacity		Gen. M. Units	Units Sold		Villages electrified No.	Pumps energised No.
	M.	W.		M.	Units		
1	2	3	4	5	6		
1960-61	315		546	441	823	5401	
1970-71	879		2976	2346	4087	67052	
1979-80	2384		8255	6244	10867	202853	
1984-85	3383.5		12312	8504	16135	292387	

5.1.6. To sustain and achieve around 5 per cent growth rate in economy, it is equally important to make efforts to achieve 10% annual rate of growth in power generation in Seventh Five Year Plan since electricity is the basic infrastructure for industrial, agricultural growth and social and economic upliftment as a whole.

5.2. Review of Progress

5.2.1. By the end of Sixth Five Year Plan *i.e.* March 1985 it was planned to achieve the target of installed capacity of 3730 MW and generation target of 14670 M. Units. The installed capacity at the commencement of the Sixth Five Year Plan period was 2384 M. W. The addition of 1346 M. W. was to be achieved as per the following commissioning programme.

Thermal

	M. W.
—Commissioning of 3 X 210 M. W. Units under Phase-I at Wanakbori TPS	630
—Commissioning of 1 X 210 MW. Unit IV out of 3 X 210 MW Units under Phase-II Wanakbori TPS	210
—Ukai TPS Extension Unit-V	210
—A. E. Co.'s Extension at Sabarmati 'E' Station 1 X 110 W.	110
Total for Thermal	1160
Share from Central Sector Korba S. T. P. S.	187
Total	1347

5.2.2. However, the actual achievement is 950 M. W. thermal + 87 MW. from Central Sector *i. e.* total of 1037 MW which is 87 percent of the target. The shortfall is due to slippage of 1 Unit of 210 MW of Wanakbori TPS Extension Scheme and 100 MW less released from Korba STPS.

5.2.3. As regards generation target of 14670 M. Units inclusive of 1290 M. Units purchase from TAPS, the actual achievement is expected to be 13940 M. Units inclusive of 1634 M. Units purchase from TAPS and Korba. The achievement is 95.02 percent of the target and 43.93 percent higher than the base year 1979-80.

5-2.4. The year-wise generation achieved including units purchased, catered demand and unrestricted demand are furnished below :—

Year	Generation	Catered M. D.	Un-restricted M. D.
1979—80	9685	1600	1850
1980—81	10188	1556	2048
1981—82	11117	1738	2228
1982—83	11456	1827	2465
1983—84	12847	2141	2575
1984—85	13940	2124	2567

5.2.5. Due to shortage in installed capacity, the load control measures such as staggering of holidays, staggering of recess hours, demand cut on H. T. industries ranging from 20 percent to 50 percent when the peak demands cannot be met are imposed. The Rural areas are supplied power from 12 to 16 hours a day.

5.2.6. The availability factor and plant load factor achieved for each year of the plan period are furnished below :—

Year	Gujarat State		All India	
	A. F.	PLF	A. F.	PLF.
1979—80	80	51.2	68.0	45.0
1980—81	75	54.0	68.0	44.7
1981—82	79	58.0	69.0	46.8
1982—83	74	59.6	70.0	49.8
1983—84	81	57.9	68.2	47.9
1984—85	82	56.0	73.0	49.6

Transmission and Distribution

5.2.7. Though the financial target of Rs. 2500 lakhs fixed for T and D works for the Sixth Five Year Plan has been nearly achieved, the actual physical achievements are less due to price escalation etc. The actual achievements are indicated below :—

400 KV Transmission Lines

5.2.8. A target of 1085 CKT Km. was fixed against which the work on the following lines was approved.

(1) Wanakbori—Nardipur	S/C	95 Km.
(2) Wanakbori—Asoj	S/C	74 Km.
(3) Ukai—Asoj	S/C	150 Km.
(4) Asoj—Jatpur	S/C	310 Km.
Total ..		<u>629 Km.</u>

5.2.9. The work on first two lines is nearly completed while the work on the remaining two lines is in progress but will spill over to the Seventh Five Year Plan. In terms of ckt. kms, the achievement is 184 ckt. km. Ukai-Asoj line and Asoj-Jetpur are expected to be completed during the year 1986-87.

400 KV Sub-Stations

5.2.10. During the plan period, 4 Sub-Stations of 400 KV/S/S, at Asoj, Nardipur, Jetpur, and Ukai had been planned and the work is progressing at all the four sub-stations. However, 220 KV portion of Asoj and Jetpur sub-stations has been completed and energised.

220. KV Transmission lines

5.2.11. Against the target of 1606 ckm. of 220 KV transmission lines, the work on 1591 ckm. was planned for execution. By March 1985 961 ckm. is expected to have been completed, work on following transmission lines will spill over to Seventh Plan.

Asoj-Godhra 2nd ckt. stringing	ckm.	65
Viramgam-Limbdi S/C		70

Ukai (Th)-Achhalia S/C	75	
Anjar-Panandhro S/C	350	
Utran-Valthan D/C	30	
Nardipur-Vijapur S/C on D/C Towers	60	
Total ..	630	Ckms.

220. KV Sub-Stations.

5.2.12. Of the 5 new 220 KV sub-stations planned for Sixth Five Year Plan 4 sub-stations at Dhansura and Viramgam, Bhatia and Savarkundla have been commissioned. The work on Vijapur, is in progress and will be commissioned 1985—86.

132 KV and 66 KV lines and sub-stations.

5.2.13. Against the target of 558 ckm. of 132 KV lines the achievement by March, '85, is expected to be 372 kms. of 132 KV lines, and in the case of 66 KV lines, 1560 ckms against the target of 2086 ckms.

5.2.14. Three out of four 132 KV sub-stations targetted would be completed. Sixty seven out of 78 of the 66 KV sub-stations have been Commissioned.

Distribution.

5.2.15. The net-work of 22 KV and 11 KV and L.T. lines is also continuously being strengthened to deliver power to the consumers and to reduce the the distribution losses. The new lines and distribution transformers are being added and schemes for system improvement are being implemented. The length of distribution lines and transformer capacity added during the first four years of the Sixth Plan is as under :

	ckm
11/22 KV lines	17225
440/220 LT lines	54000
Distribution Transformers.	1736 MVA

Rural Electrification

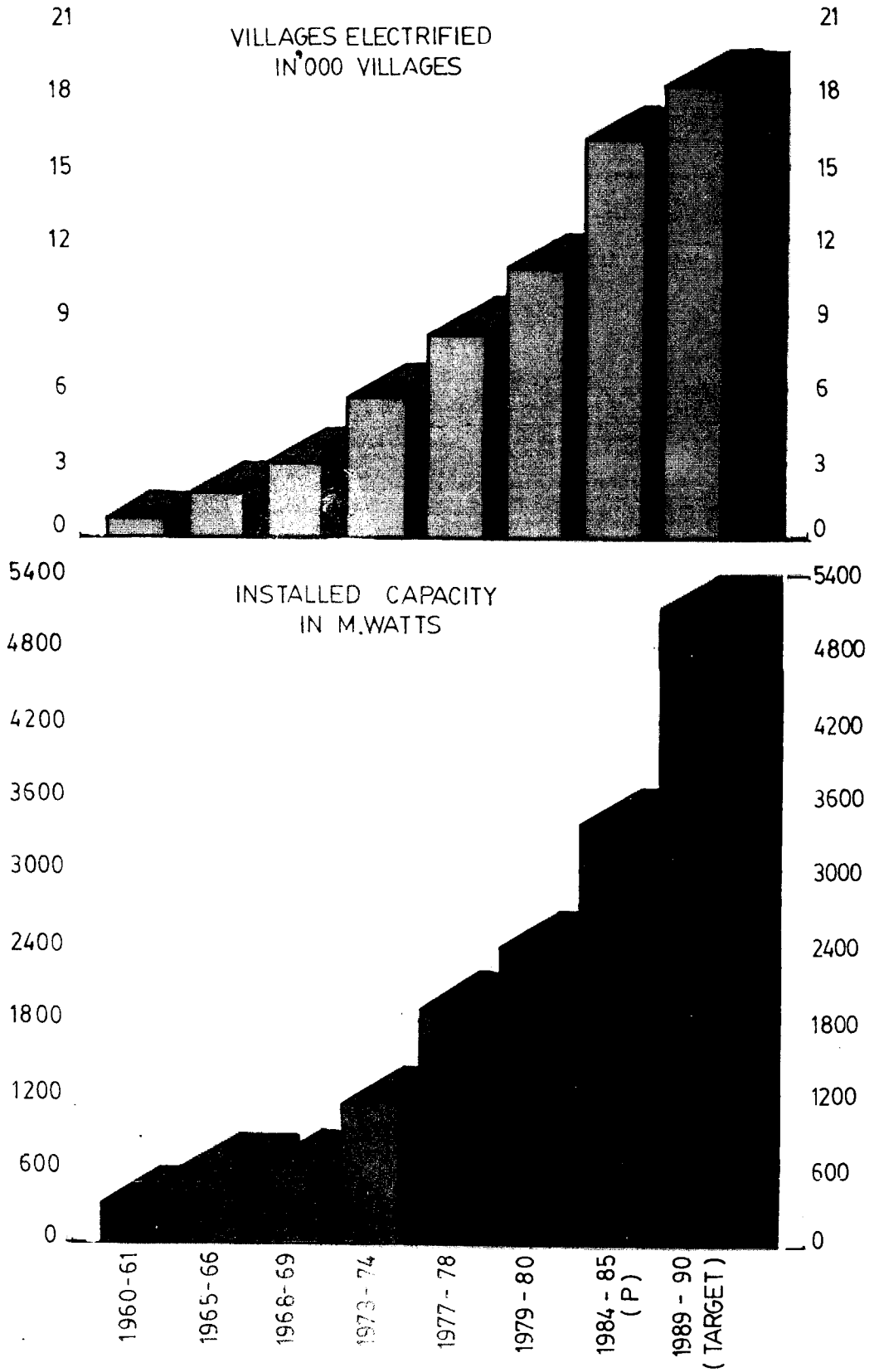
Village electrification.

5.2.16. Of the 18275 villages in Gujarat (1971 census) 10808 villages stood electrified at the end of Fifth Plan. During the Sixth Five Year Plan, all the remaining 7408 villages were planned for electrification. However the achievement was 5268 villages. The shortfall is due two cyclones and floods. in November, 1982 and June, 1983 as a result of which materials had to be diverted for the resotation of the extensive damages to lines and transformer centres.

Pump/Tube well electrification.

5.2.17. Yearwise achievement against a target of 125000 pumps to be electrified during the Sixth Plan are as follows :—

ELECTRICITY



1980—81	28373
1981—82	20390
1982—83	10145
1983—84	12001
1984—85	18625
	Total :— 89534

5.2.18 **The** overall percentage achievement of well electrification for the plan period was 71.63 %.

Electrification of Tribal Areas :

5.2.19. There are 5367 inhabited tribal villages in 32 tribal talukas. During the Sixth Plan period, 2057 tribal villages were electrified bringing the total villages electrified to 4060 (71.63 percent) leaving a balance of 1307 villages to be electrified during the Seventh Plan.

Electrification of Harijan Basties.

5.2.20. Special attention is being paid to electrification of Harijan Basties under Special Component Plan Scheme. During the Sixth Plan a total No. of 3797 Basties have been electrified at the total cost of Rs. 1353 lakhs.

Non-Conventional Energy Sources.

5.2.21. The impulse given to research and development activities in the field of non-conventional energy sources and their exploitation is one of the major events in science and technology. National energy policies are being elaborated in many countries. Alternate sources of energy include Solar, Wind, Bio-logical and Geothermal energy programmes. The Gujarat Energy Development Agency was set up in June, 1979 to undertake research and development and popularisation of renewable energy sources and energy conservation.

The research priorities at this agency include :

- Studies on rural energy consumption and heads in Gujarat.
- Solar thermal energy applications like, solar coolers, solar water heating system, solar cold storage etc.,
- Wind energy system.
- Energy plantations—large scale and small scale for wood burning and wood gassification
- Bio-gas plants.
- Organic waste as energy sources.
- Conservation of energy in irrigation water pumping set, agri. appliances.
- Combustion devices with improved efficiencies for domestic use such as, Kerosene stoves, wood fired chulas etc ;

5.2.22. GEDA is also a nodal agency for liaison between the State Government agencies, departments, National and International Agencies. GEDA sponsors research and development and promotional programmes with various institutions public as well as private at State, National and International levels for GEDA undertakes Projects aimed at developing and Spreading renewable energy device so as to improve income level, quality of life and employment of rural people especially of backward and weaker sections.

5.2.23. The five major areas of activities of GEDA now are :

- Biomass and organic wastes
- Wind
- Solar energy
- Energy conservation and other resources
- Information dissemination

Conservation of Energy.

5.2.24. In the context of continued shortage in availability of adequate power, special efforts have been made for the conservation of energy in agricultural and industrial sectors which account for as much as 85 percent of the total consumption of the electrical energy.

5.2.25. Various projects involving replacement of footvalves and suction and delivery and G. I. pipes by PVCC pipes in electrified pumps which give over 20 percent energy saving are in progress. Priority in new connections is given to those who are adopting new measures for conservation of energy in agricultural pump-sets.

5.2.26. Studies and surveys to analyse and advise areas of conservation of energy in industrial sector (particularly in textiles and chemicals) are on hand.

5.3. Approach and Strategies in the Seventh Five Year Plan.

5.3.1. Measures to increase the availability of the power include :—

(1) By better utilising the existing generation capacity through :

—renovating the existing units at different power stations so that the units work at optimum value.

—uprating the existing units wherever possible.

—achieving better availability and PLF by way of planned outages and providing suitably trained personnel for operation and maintenance of the plants.

(2) By completing ON-GOING projects expeditiously by vigorous monitoring.

(3) By planning and executing new projects expeditiously.

— As Gujarat is situated away from the coal fields and there are increased problems of transport of coal from the coal mines to the project sites and also

hydro potential is very limited, the new projects will have to be either gas-based or based on nuclear energy. These projects can be located only in specific areas and in view of their bigger capacity (500 MW) they may come under the Central Sector. The present policy of power allocation from the central sector projects also requires a review on the basis of power needs of the constituent States.

4. By reducing T & D losses, the availability of power can be increased to the extent the losses are reduced.

—The present T & D losses are around 23.4 percent and with the implementations of the various system improvement schemes the system losses could be reduced by 2 to 2.5 percent.

By adopting energy conservation measures.

5.3.2. In the context of continued deficit of availability of power, various measures taken during Sixth Plan for reducing the energy consumption in agricultural and industrial sector which account for almost 85 percent consumption of the total consumption are to be followed during Seventh Plan to reduce the gap between availability and requirements of power.

Perspective—Planning.

5.3.3. The working group on power development in the Seventh Five Year Plan the central electricity authority has estimated 4038 MW power demand of Gujarat State by 1989—90 which requires the installed capacity of 7047 MW as against 3384 at the end of March 1985. This requires installation of additional installed capacity (7047-3383.5)—3363.5 MW. As 218.5 MW capacity-old units will retire, the additional capacity required to be provided will be 3882 MW.

5.3.4. It is proposed to meet the requirements of installed capacity as follows:—

—Additional capacity from the present on-going projects.	1345 MW
—Share from central projects <i>i. e.</i> Korba STPS & Vidharbha STPS as confirmed by C.E.A.	491 MW
Total :	1836 MW

5.3.5. This still leaves a gap of (3882-1836) 2046 MW and to bridge the gap the following schemes have been submitted to CEA and the Planning Commission for clearance.

Gandhinagar TPS Extn. Units IV	210 MW
Utran Thermal Power Station Replacement (1 X 120 MW)	120 MW
Gas based TPS at Kawas (3 X 130 MW)	390 MW
Gas based TPS at Kawas (3 X 130 MW) Extn.	390 MW
Narmada TPS at Sinor (4 X 500 MW)	2000 MW
Sikka TPS Extension (1 X 120 MW)	120 MW
A. E. Co.'s extension Unit 'F' Station (1 X 110 MW)	110 MW

Joint Pit Head TPS at Bandhav (4 X 500 MW) Gujarat's share	1000 MW
Joint Pit Head TPS at Mand (2 X 210 MW) Gujarat's share	210 MW
Lignite Based Kachchh TPS Extn. 1 X 70 MW	70 MW
Micro Hydel Schemes	6 MW
Installation of DG Sets at Kandla	8 MW
Installation of DG Sets at Various industrial centres.	60 MW
	4694 MW

5.4. Programmes for Seventh Plan 1985--90.

5.4.1. An outlay of Rs. 146650 lakhs is provided for the power development sector for the Seventh Plan.

Details are as follows :—

Item	(Rs. in lakhs)	
	1985—90 (Seventh Plan)	
Power Development (Survey, Investigation & Research)	100	
Multi-purpose river valley projects (power-portion)	14650	
Power projects (Generation)		
(i) Continuing & On-going	57850	
(ii) New Schemes (under approval)	11046	
(iii) Renovation schemes	3939	
Sub-Total for Generation :	72835	
Transmission & Distribution	50000	
Rural Electrification	7240	
General	525	
New sources of energy including Bio-gas and integrated rural programme.	1300	
Total	146650	

5.4.2. The targets set for the Seventh Plan 1985-90 are : (Additional Net)

	1985—90	
Installed capacity	MW	1729.5
Transmission lines (220 KV and above)	CKM	3044

<u>Rural Electrification</u>		1985-90
Village Electrification	Number	2140
Energisation of Tubewells and pumpsets.	„	100000
Electrification of Peta-Pares	„	3500
Conversion of villages from Agri-purpose to all purpose	„	800

5.4.3. A broad outline of the projects, physical targets etc. is given in the following paragraphs.

Kadana Hydro (2 × 60 MW)

5.4.4. The station has been designed as peaking station on the Kadana Dam across river Mahi having an ultimate capacity of 4 units each of 60 MW.

5.4.5. Under Stage-I, 2 units of 60 MW each are being installed. The revised estimated cost of the scheme is Rs. 8657 lakhs.

5.4.6. The civil works for all the four units including 2 units to be taken under stage-II are in progress. Erection of draft tubes of unit No. 1 and 2 has been completed and that of unit No. 3 is in progress.

5.4.7. The plant and equipments for both the units are already received at site. The erection of the speed ring and spiral casing will be taken up to match the civil works. The first unit is programmed for commissioning by March 1987 and followed by second unit in September 1987.

5.4.8. The total expenditure incurred upto March 1985 is Rs. 4727 lakhs and the provision for Seventh plan is Rs. 4175 lakhs.

Kadana Hydro Power Station Stage-II Units 3 and 4 of 60 MW each

5.4.9. The civil engineering works of units 3 and 4 are being carried out under Stage-I alongwith units 1 and 2. The estimated cost of additional two units to be provided under stage-II is Rs. 3410 lakhs. The negotiations are under progress, with M/s. BHEL to supply the plant and machinery for units 3 and 4. The works are to be taken up during the Seventh Five Year Plan. The 2 units are programmed for completion by 1988-89 and 1989-90 respectively. The outlay provided for the Seventh Plan is Rs. 3410 lakhs.

Ukai L.B.C. Hydro Scheme-2 × 2.5 MW

5.4.10. The scheme envisages installation of 2 units each of 2.5 MW located on the left bank canal of Ukai dam. The estimated cost of the scheme is Rs. 424 lakhs.

5.4.11. The main power plant order is placed with M/s. Jyoti Limited, Baroda, who have already started supplying the equipment. The main coffer dam civil works have been entrusted to M/s. Gujarat State Construction Corporation who have taken up the work. The two units are scheduled for commissioning during 1986-87.

5.4.12. The expenditure incurred upto March 1985 is estimated to be of the order of Rs. 199 lakhs and the outlay for the Seventh Plan is Rs. 220 lakhs.

Wanakbori TPS Stag-I-3 × 120 MW

5.4.13. The scheme envisaged the installation of 3 units each of 210 MW capacity on the river Mahi in Kaira district, at an estimated cost of Rs. 24474 lakhs.

5.4.14. All the three units have been commissioned the first in March 1982, second in January 1983 and third in March 1984.

5.4.15. The expenditure incurred upto March 1985 is Rs. 22944 lakhs. The spill over amount for the Seventh Plan is Rs. 1086 lakhs mainly for end payments. An outlay of Rs. 1086 lakhs is provided in Seventh Plan.

Ukai TPS Extension Unit No. V-210 MW

5.4.16. The scheme comprises installation of one additional unit of 210 MW-- Unit No. 5 at the estimated cost of Rs. 8445 lakhs. The unit has been Commissioned in January, 1985 and taken on coal firing on the same day.

5.4.17. The expenditure upto March 1985 is Rs. 8072 lakhs. The outlay proposed for Seventh Plan is Rs. 483 lakhs only towards end payments, quarters etc.

Wanakbori TPS Extension Stage-II 3 × 210 MW Units

5.4.18. The Stage-II of Wanakbori TPS envisages installation of additional 3 units of 210 MW capacity bringing the total capacity of the power station to 1260 MW. on completion. The estimated cost of the extension project is Rs. 35859 lakhs.

5.4.19. The project is at an advanced stage of execution M/s. BHEL have taken up the boiler erection work of all the three units. M/s. TSL are carrying out the erection work of steel structure. The work on associated civil works such as cooling towers, multi-flue chimney, C. W. system are under progress. The revised programme for commissioning of the units is now December, 1985, June 1986 and June, 1987.

5.4.20. The expenditure upto March 1985 is Rs. 23981 lakhs. The outlay for the Seventh Plan is Rs. 11149 lakhs.

Sikka TPS Replacement-1 × 120 MW

5.4.21. The scheme envisages installation of one unit of 120 MW capacity to replace the existing old units. The scheme has been approved by the Planning Commission at an estimated cost of Rs. 8314 lakhs. The revised estimated cost of the project is Rs. 13540 lakhs.

5.4.22. The orders for main power plant have been placed with M/s BHEL who have commenced the supplies. The agencies for the various associated civil work viz. plant foundations, chimney, residential quarters etc. are also finalised. The work on civil works commenced in January 1984. All major orders have been placed.

5.4.23. The unit is scheduled for commissioning in March, 1987. The expenditure incurred upto March, 1985 is Rs. 4815 lakhs. The outlay for the Seventh Plan is Rs. 9266 lakhs.

Kachchh Lignite TPS-2 X 70 MW

5.4.24. The scheme envisages installation of 2 units each of 70 MW capacity at Panandhro using lignite as fuel at the estimated cost of Rs. 17897 lakhs. The scheme is approved by the Planning Commission in the year September, 1979.

5.4.25. The orders for main power plant have been placed with M/s. BHEL in March, 1981. The work orders for various civil works *i.e.* main power station building, equipment foundation, cooling towers, chimney, quarters etc. have been placed. Necessary steel and cement have been arranged and the work has commenced.

5.4.26. The two units are programmed for completion by June, 1988 and December, 1988 respectively.

5.4.27. The expenditure upto end of Sixth Five Year Plan *i.e.* March, 1985 is Rs. 4974 lakhs. The outlay for Seventh Plan is Rs. 13153 lakhs.

5.4.28. The installation of one unit of 210 MW capacity has been approved by the Planning Commission in 1982 at the estimated cost of Rs. 12391 lakhs. The orders for the main power plant are placed with M/S. BHEL in May, 1983, M/S. Desoin have been appointed as consultants for this project. The preparation of tender specifications for various civil engineering works *i.e.* power station building quarters, equipment foundation is on hand. The unit is programmed for completion by March, 1988.

5.4.29. The expenditure estimated to be incurred upto end of Sixth Five Year Plan is Rs. 2056 lakhs. The revised cost of the project is estimated to be Rs. 16424 lakhs and the outlay for the Seventh Plan is Rs. 14908 lakhs.

5.4.30. The following projects are already cleared by CEA but awaiting investment approval from the Planning Commission :—

Lignite based Kachchh TPS Extn. Unit-III—1×70 MW

Gandhinagar TPS Extn. Unit-IV—210 MW

Utran TPS—120 MW Unit.

Mini Hydro—Panam Canal Hydro Project—2×1 MW.

The brief description of the above projects is as follows :—

Lignite based Kachchh TPS Extn. Unit-III—(1×70 MW)

5.4.31. The scheme was submitted to the CEA and Planning Commission for approval in May 1981. CEA has already given the techno-economic clearance to the scheme in 1982. The execution of the first stage covering 2 units of 70 MW capacity is in the initial stage of construction. The 2 units are expected to be completed during the year 1988-89.

Gandhinagar TPS Extn. Unit-IV—210 MW

5.4.32. The scheme has been submitted to the CEA and Planning Commission in May 1982 at the estimated cost of Rs. 12800 lakhs. The cost has been revised since then to Rs. 16445 lakhs. The techno-economic clearance from CEA is received in March 1984. It had been planned to execute this project alongwith Unit No. III as it was economically advantageous. The orders for main plant and equipment are placed with M/s BHEL alongwith Unit-III in May 1983. The civil engineering works are planned to be executed alongwith Unit-III.

5.4.33. The expenditure incurred upto March 1985 is Rs. 755 lakhs. Though it was programmed to commission the unit by 1989-90. On account of constraint of funds. It would not therefore be possible to get this project expedited and complete as per the target. The project will, therefore, spill over to Eighth Five Year Plan.

Utran TPS 120 MW Unit

5.4.34. The scheme had been submitted to the CEA and Planning Commission in the year 1979. The scheme envisages installation of 120 MW Unit to replace the existing small units to be retired on completion of their useful life. The revised estimated cost of the project as submitted to CEA in May 1984 is Rs. 10545 lakhs. The coal linkage has already been established. The scheme is techno-economically cleared by the CEA in December, 1984.

5.4.35. It has been under consideration to form a new Limited Company (GIP CO) to execute this project. The provision for this project for Seventh Five Year Plan (Government's share) is estimated @ Rs. 644 lakhs, @ 15% of the total issued and paid up capital.

Mini Hydro Panam River Bed (2×100 MW)

5.4.36. The scheme of installation of 2 units each of 1 MW in the Panam river bed is sanctioned by CEA in April 1984 at the estimated cost of Rs. 350 lakhs.

5.4.37. The scheme is awaiting clearance from the Planning Commission. The provision will be met from the lumpsum provision of Rs. 7702 lakhs made for the un-approved schemes.

5.4.38. The status of other schemes awaiting techno-economic clearance from the CEA is as below :—

Gas based TPS project at Kawas (3×130 MW+3×130 MW)

5.4.39. On availability of gas in ample quantity from Bombay High, the project to instal 3 units each of 130 MW capacity at Kawas near Surat, with waste heat recovery plant at a total estimated cost of Rs. 27367 lakhs was submitted to CEA in August, 1982. While the project was under consideration of the CEA, the project report to instal additional 3 similar units was also submitted to the CEA in June, 1984 at an additional cost of Rs. 26440 lakhs. The Government of India have now taken a decision that the Kawas Gas based power project with a capacity of about 560 MW alongwith similar projects in Rajasthan and M.P. will be taken up under the Central Sector. The projects will, therefore, be taken up by NTPC. Hence no provision is made for the Seventh Plan under State Plan. As the project is yet to start and allocation of power to Gujarat is not known, the benefits from the project during Seventh Plan period are not taken into consideration.

Sikka TPS Extension—2nd 120 MW unit :

5.4.40. The scheme for installation of 2nd 120 MW unit at Sikka TPS at an estimated cost of Rs. 95 crores has been submitted to CEA in July, 83. All necessary technical clarifications etc. have been furnished and it is expected that the CEA will shortly issue techno-economic clearance as soon as the coal linkage is established. As the necessary infrastructure facilities exist, it will be possible to complete the project in comparatively short period. However, keeping in view the funds availability under 'un-approved' schemes for the Seventh plan, the benefits from this project will be available only during Eighth Plan.

Narmada TPS at Sinor (4 × 500 MW)

5.4.41. The scheme of establishing first super thermal power station in Gujarat with a capacity of 4 units each of 500 MW has been proposed to the CEA and the Planning Commission in April, 82 at an estimated cost of Rs. 1200 crores.

5.4.42. Railways have expressed their inability to transport coal over a long distance of 1800 kms. and completing the conversion of Miyagam-Malsar N. G. section to B.G. Hence, as advised, feasibility of establishing power station along sea coast so that coal can be brought by sea-cum-rail route and/or establishing the power station on multifuel base, is being studied. RITE, New Delhi. have also been requested to study the feasibility of transport of coal by sea route. Thus, this scheme can be taken up only in the later part of the Seventh Plan.

Joint Pit head power station at Bandhav 4 X 500 MW : and Mand-2 X 210 MW

5.4.43. The MPSEB in concurrence with GEB has submitted two schemes of joint pit head power station at Bandhav (4 × 500 MW) and Mand (2 X 210 MW) to the CEA and Planning Commission in the years 1981 and 1983 respectively on the basis of 50 % sharing cost and benefits. The MPSEB authorities have informed that the schemes are not yet cleared by the CEA, the coal linkages are not established and that various issues raised by the CEA are being complied by them. The schemes are likely to be approved as Eighth Plan Schemes but advance action may be required to be taken up in the later years of the Seventh Plan.

Mini Hydel Schemes

5.4.44. In the context of changed circumstances due to energy crisis and very high fuel cost for thermal stations, Gujarat Electricity Board has proposed mini hydel schemes which are investigated earlier by the Irrigation Department of the State. The following mini hydel schemes in river bed of various rivers have been proposed and submitted to CEA for techno-economic clearance. These schemes are under study and discussions with Irrigation Department and CEA from feasibility and techno-economic point of view and expected to be cleared by CEA to cover under Seventh Five Year Plan. The detailed schemes are :

Damanganga River Bed Power House	2 × 1000 KW capacity
Panam River Bed Power House	2 × 1000 KW capacity.
Dharoi River Bed Power House	2 × 1000 KW capacity
Total :	6000 KW capacity

5.4.45. The total estimated cost of the above works is Rs. 1140 lakhs. On getting clearance from CEA & Planning Commission, the works would be taken up and the provision would be met from the allocation of Rs. 7702 lakhs for Seventh Plan under "un-approved Schemes."

Installation of D.G. sets at Kandla Free Trade Zone 2 x 4 MW.

5.4.46. The scheme for installation of 2 × 4 MW DG sets at KFTZ at the estimated cost of Rs. 468 lakhs to meet the emergency supply and also make the reliable and continuous in view of the importance of the zone, has been submitted to the Planning Commission for approval. The State Government have already given approval but investment approval from Planning Commission is awaited.

Installation of D. G. Sets at various Industrial Centres

5.4.47. The scheme for installation of 18 D. G. sets at various locations having aggregate capacity of 60 MW at the estimated cost of Rs. 3300 lakhs has submitted been

to CEA and Planning Commission for approval with a view to meet the load demand in the industrial zones during power restriction periods and to meet the peak load and to reduce the load fluctuations. The scheme has been submitted in April, 85 and is awaiting clearance.

A.E. Company 110—MW 'F' Unit :

5.4.48. A. E. company, Sabarmati, have submitted a scheme of 110 MW unit 'F' station at their Sabarmati power station. The scheme is under approval. However, considerable preliminary work is already done. The total Government assistance is Rs. 2700 lakhs and the same is provided in the Seventh Plan. The unit is tentatively planned for commissioning in 1988-89.

Narmada Hydro Project

5.4.49. As per discussions with the CEA, the following are proposed for installation.

(1) River Bed P. H.—6 × 200	=1200 MW
(2) Canal Bed P. H.—5 × 50	=250 MW
Total :	1450 MW

5.4.50 The Gujarat's share of power at 16 % is 232 MW. The plan provision is Rs. 14650 lakhs.

Renovation / Modernisation of the power Stations

5.4.51. For operation of the existing power stations at optimum level, it is considered essential to carry out the necessary additions/modifications to the plan or replace the equipments which are found to be defective and not efficient or out dated, otherwise, the plant will work at the reduced output, resulting in the level of availability of power, higher maintenance cost. Keeping this in view the schemes costing total of Rs. 6974 lakhs have been prepared and submitted to the Central Government. The renovation schemes cover the Ukai TPS, Gandhinagar TPS & Dhuvaran TPS. An outlay of Rs. 3939 lakhs is provided under State plan for seventh plan besides the central assistance of Rs. 2134.30 lakhs. The power-station-wise State Plan and Central allocation for Seventh Plan is as under :

Sr. No.	Name of P. S.	State Plan	Central Assistance.
(1)	Ukai TPS	2500.00	581.20
(2)	Gandhinagar TPS	603.00	917.10
(3)	Dhuvaran TPS	836.00	636.00
Total :		3939.00	2134.30

5.4.52. On implementation of the above R & M scheme, the operating load factor of the power stations will improve and additional generation of about 560 M Units will be available.

Transmission and Distribution

5.4.53. A sum of Rs. 500 crores is allocated for T & D works during the Seventh Plan period. The amount for transmission works provided is Rs. 400 crores, while for distribution including System Improvement, the allocation is Rs. 100 crores.

Transmission

5.4.54. The amounts allocated for various works are as under :—

<i>400 KV Works</i>	(Rs. in lakhs)
Lines	5343.60
S/S including feeder bays	2533.54
Sub-Total :	<u>7877.14</u>
 <i>220 KV Works</i>	
Lines	6226.44
S/S. including feeder bays ext. & agumentation	5206.81
Sub-Total :	<u>11433.25</u>
 <i>132 KV Works</i>	
Lines	644.00
S/S including augmentation & feeder bay|Extn.	1692.00
Sub-Total :	<u>2336.00</u>
 <i>66 KV Works</i>	
Lines	2725.00
S/S.	4608.00
Sub-total :	<u>7333.00</u>
Other schemes such as Normal Development Schemes, Reactive compensation schemes, deposit works & carrier communication schemes etc.	1540.00
Spill over works of VIth Plan	8758.00
Load despatch works	800.00
Total :	<u>40077.39</u>
Say	Rs. <u>400 crores.</u>

5.4.55. The details of new lines and sub-stations for 400 KV and 220 KV are as under :—

Line	CKM
<i>400 KV</i>	
Nardipur--Limbdī S/C.	150
Limbdī--Jetpur S/C.	150
Asoj Limbdī S/C	160
Kakarapara-Asoj S/C	150
Total :	610
<i>220 KV Lines.</i>	
Kadara-Dhansura 2nd circuit stringing.	75
Jetpur-Keshod S/C with D/C towers.	70
Keshod-Kodinar S/C.	75
Vav-Utran-Rendar D/C.	80
Loop-in-Loop out Vev-Jamura D/C at Bharuch	40
Loops-in-loop out Asoj Godhra D/C @ Halol	50
Loop-in-Loop out Mehsana-Anjar line @ Deodar	40
Nardipur-Palanpur D/C line.	80
Kakarapara-Ukai D/C	88
Kakarapara-Vav D/C	40
Wanakbori-Dhansura D/C	150
G'nagar Himatnagar D/C	160
Nardipur-Chhatral S/C	40
Dhansura-Himatnagar S/C	46
Wanakbori-Godhra S/C.	35
Savarkundla-Kodinar S/C	100
Vertej-Savarkundla	80
Loop-in-loop out Panandhro-Anjar line at Nakhatrana on D/C towers.	10
Total	1259

New Sub-stations :

Sub--Stations	MVA Capacity
400 KV Limbdi	500
<i>220 KV</i>	
Keshod	100
Kodinar	100
Rander	150
Broach	200
Halol	50
Deodar	50
Palanpur	150
Himatnagar	50
Nakhatrana	50
Total	900

Augmentation of 220 KV S/S.

Sub-Station	MVA Capacity
Vav	50
Chhatral	50
Savarkundla	100
Godhra	50
Vapi	50
Anjar	100
Navasari	50
Total :	450 MVA

5.4.56. For 132 KV voltage class the total length of 226 ckm. of lines is envisaged. 7 new 132 KV sub-stations at Rajkot, Visnagar, Barwala, Junagadh, Pranholi, Chiloda & Valsad with aggregate capacity of 350 MVA will be established. In addition the capacity of existing sub-stations at Nadiad, Vatwa, Bhuj, Dhandhuka and Jamnagar aggregating to 202.5 MVA will also be augmented.

5.4.57. In case of 66 KV voltage class, a total of 1824 ckm. of lines and 86 sub-stations will be established.

Distribution :

5.4.58. Rs. 100 crores are provided for distribution net-work during the Seventh Five Year Plan period to provide and extend/strengthen the existing 22 KV and 11 KV lines & new transformer centres to meet the load demands of the consumers in the electrified areas, to bifurcate our load distribution lines, to implement system improvement schemes and to reduce distribution losses.

5.4.59. The physical targets for plan period are indicated below :—

New Works

(1) 11/22 KV lines	3445
(2) LT Lines	3080
(3) 22/11/4 KV Tr. centres	4470
(4) Service connections	
H. T. Industrial	610
L. T. Industrial	40850
Domestic	928000

System Improvement

(1) Up-grading of 11 KV lines	4000
(2) L. T. Lines	1000
(3) Augmentation of 22/11/4. KVS /S.	55

Rural Electrification.

5.4.60. The total Seventh plan allocation for rural electrification is Rs. 7240 lakhs out of which, Rs. 5040 lakhs is on account of REC (normal) and Rs. 2200 lakhs are on a account of state plan. All the remaining 2140 villages are programmed for electrification. Thus, 100 % rural electrification will be achieved during the Seventh Plan period. Out of 2140 villages remaining to be electrified, 1307 villages are tribal villages.

5.4.61. The physical targets for Seventh plan are as under :—

Particulars 1	Tribal 2	Non-tribal 3	Total 4
<i>Village electrification</i>			
(i) REC	1007	833	1840
(ii) State Plan	300	..	300
	1307	833	2140

1	2	3	4
<i>Conversion of villages from Ag. to all purpose</i>			
(i) REC	..	500	500
(ii) State plan	300	..	300
	300	500	800
<i>Electrification of Peta Paras.</i>			
(i) REC	..	2500	2500
(ii) State Plan	1000	..	1000

Wells Electrification.

5.4.62. The electrification of pumps/wells is carried out mostly under non-plan schemes financed by REC, NABARD & other financial institutions. The Seventh Plan programme is to electrify 100000 lakhs at the total estimated cost of Rs. 100 crores.

Survey and Investigation.

5.4.63. During the Seventh Plan, an allocation of Rs. 100 lakhs is made towards survey & investigation to be made for locating suitable sites for new power project schemes including mini hydro schemes.

Providing Electrical Safety in Rutral Areas

5.4.64. This scheme is aiming at providing electrical safety in rural areas of the State with a view to save human and animal lives from electrical incidents. Under this scheme the quality of maintenance and electrical safety will be checked and visit will be made to agricultural electrical installations of the consumers located in rural areas of the State and these installations would be advised about the electrical safety and would be asked to carryout necessary rectification wherever necessary.

5.4.65. Total number of installations at the beginning of the year 1984-85 were 3.30 lakhs including the transformer centres of the Gujarat Electricity Board. Against this, the number of electrical accidents occured were 510 in the rural areas of the State and on the supply system of G.E.B. including 318 fatal accidents. Thus the ratio of number of installations to number of accidents was 647 : 1 in the beginning of the year 1984-85. The anticipated number of such installation would be more than one lakh every year.

5.4.66. The non-increase in the rate of occurrence of accidents would also assist the G.E.B. in preventing the further increase in number of claims of compensation and resultantly, the liability of the Gujarat Electricity Board towards the payment of compensation would be restricted.

5.4.67. The implementation of the scheme would also facilitate the speedi inquiry of accidents and quick settlement of the claims of compensation preferred by the victims of the accidents or their heirs and the public at large.

5.4.68. With a view to carry out the various activities under this scheme a separate administrative and supervisory set up is required to be created for which an outlay of Rs. 70 lakhs has been provided in Seventh Plan 1985-90. This scheme is self-supporting since there may be a collection of fees to the extent of Rs. 20 lakhs every year.

Household Electrical Appliances Scheme.

5.4.69. The Government of India, in the Ministry of Industry has issued an order viz "The household Electrical Appliances (quality control order 1981) under the Essential Commodities Act, 1955. This order has already come into force on August '82 and the enforcement of this order is to be done in every state. Accordingly, a scheme for implementation of this order was sanctioned in November, 1984 by the State Government.

5.4.70. The main object of this order is to control and stop the sale and use of sub-standard household electrical appliances not confirming to the relevant standard of the Indian Standard Institution as well as to maintain and improve the quality of various house electrical appliances. This will provide better protection to the users of such appliances and public at large against the interior quality of the house hold.

5.4.71. The Chief Electrical Inspector has been appointed as an implementing authority for this order and to assist him the additional staff is sanctioned. To meet with the expenditure for the staff and purchase of vehicle a provision of Rs. 30 lakhs is made in Seventh Plan, 1985-90.

New and Renewable Sources of Energy.

5.4.72. An outlay of Rs. 1300 lakhs is provided in the Seventh Plan for this programme; the broad break-up of which is under :—

	(Rs. in lakhs)
Gujarat Energy Development Agency	936.00
Bio-gas Development.	364.00
	<hr style="width: 100%; border: 0.5px solid black;"/> 1300.00

Gujarat Energy Development Agency.

5.4.73. Gujarat Energy Development Agency is registered Society set up by Government of Gujarat and is engaged in the activities relating to spreading the knowledge in various fields of energy and to improve the quality of decision making with regard to the problem caused on account of repaid depletion on non-renewable sources and increasing pollution caused by the existing use of energy.

5.4.74. During the Sixth Plan period the State Govt. has extended the Financial assistance to the extent of Rs. 153 lakhs to GEDA for implementation of its various projects.

5.4.75. From the First year of the Seventh Plan *i.e.* 1985-86 the GEDA has a number of on going as well as new projects to be implemented vigourously for which an outlay of Rs. 934 lakhs is provided in the Seventh Plan 1985-90. The various projects to be taken up by GEDA during the Seventh Plan period are as below :—

BIOMAS / GASIFICATION/ BIOGAS

Mobile Gasifiers :

Improved biogas plants.

Wood and agricultural residue gasification project to run engines for irrigation and biomass feed preparation through briquetting.

Project on Methane gas production from industrial residues
integrated gasification project for power generation (1M)

energy from Municipal Wastes

gasifier generator systems

Development of Mobile gasifier for Agriculture

Subsidy for gasifiers and briquetting machineries

Smokeless Chulla Programme

Energy Plantation project

Research Projects on Biomass, Biogas and Gasification area

WIND ENERGY

Wind Mill Research and Wind Mapping Project

Project for Electrical Power Generation by Wind Mills (Experimental) and
Research Wind Farm

Wind Farm Project of 0.5 MW

Subsidy for National Wind Mill Demonstration Programme.

SOLAR ENERGY

Solar Cooker/Exhibition/Popularisation/Distribution/Demonstration/Subsidy

Solar Energy Operated Cold Storage

Solar Photovoltaic Demonstration Programme)

Subsidy for Solar Thermal Systems

Solar Pond Project

Solar Energy Research Projects

ENERGY CONSERVATION

Energy Audit and Conservation

Energy Conservation in transportation

Energy Conservation in Agriculture
Energy Conservation in Industries
Improvement of Combustion efficiencies
Energy Resources Mapping and Data Base

INTEGRATED RURAL ENERGY STUDIES

Rural Energy Survey
Solar Village (Integrated Rural Energy Systems)

INFORMATION DISSEMINATION, SURVEY EXHIBITION ETC.

Information Dissemination (Publication of literature Films, Posters etc
New Ideas
Mobile Exhibition Unit for alternate energy sources
Energy Forecasting, Planning and Managements
Energy Conservation Exhibition
Construction of Solar Energy Building and Building Complex for Gujarat
Energy Development Agency
Assessment of Geothermal Energy Potential in Gujarat and Feasibility of
utility for power generation.

National Project on Biogas Development :

5.4.76. The National Project on Biogas Development came into existence in Gujarat from November-1981. The project is also included in the revised 20 Point Programme announced by the late Prime Minister Smt. Indira Gandhi. The programme has assumed much importance particularly in view of present energy crises. A greater awareness has now emerged to set-up Biogas Plants on a large scale as expeditiously as possible which become multipurpose decentralised dispersed units of—

- Renewable sources of energy for fuel.
- Bio-fertilizer.
- recycling of wastes.
- environmental sanitation etc;

5.4.77. This is a centrally sponsored scheme. Besides the financial assistance from the Government of India, the State Govt. is also providing liberal State subsidy under Plan Sector to the beneficiaries.

Sixth Five Year Plan

5.4.78. During the Sixth Five Year Plan, the Biogas Programme was started in the State in November, 1981, with the total target of 35,000 Biogas Plants

to be set-up in the remaining period. About 24,000 Biogas Plants were constructed by the end of March-1985. Thus, the physical achievement under the programme till the end of March, 1985 was 69% of the total target fixed for the Sixth Five Year Plan.

5.4.79. The reasons for less achievement are namely as under:—

- The programme was started in Gujarat State after about the first two year of the Sixth Plan were over.
- The allotment of cement by the Govt. of India was not sufficient to the State requirement resulting in same retardation.
- The cyclone 1982-83, and heavy rains in some districts an had also bleaked the enthusiasm.

Strategy for Seventh Plan.

5.4.80. In the coming years, the Bio-gas programme will have a very dominant effect in the field of energy development. With a view of making the programme more effective right from the village level to the district level, it is planned to prepare both the technical and non-technical employees required for implementation of the programme. To attend the complaints regarding defunct/non-satisfactorily working plants "Repairs Units" will be established at District level to look after such sick plants.

5.4.81. The following arrangements are made for successful implementation of the programme :—

- Payment of advance subsidy amount to the banks to achieve maximum co-operation from the banks.
- Setting up of a Research and Development unit under the Nodal Agency for adopting the cheapter and durable design of the gas plant.
- Large scale training classes of masons to meet with the existing shortage of trained masons.

Programme for seventh Plan 1985-90.

5.4.82. During the Seventh Plan it expected to construct 54,000 Bio-gas Plants with an outlay of Rs. 364 lakhs Howevrer, the final target will be fixed in consultation with the Govt. of India, DNES.

STATEMENT

Schemewise outlays for the Seventh Five Year Plan 1985--90

(Rs. in lakhs)

Sr. No.	No. and Name of Scheme	Outlay for Seventh Plan
1	2	3
A—POWER DEVELOPMENT		
I. Generation :		
(A) Schemes Completed by 31-3-85.		
1	PWR—1 Wanakbori TPS (3 × 210 MW)	1086
2	PWR—2 Ukai TPS Extn. Unit--V (1 × 210 MW)	483
6	A. E. Co. Unit.	..
(B) Approved and on going Schemes for benefits During Seventh Five Year Plan.		
3	PWR—3 Kadana Hydro Electric Project (2 × 60 MW)	4175
4	PWR—4 Kadana Hydro Electric Project (2 × 60 MW)	3410
5	PWR—5 Ukai L.B.C. Power House (2 × 2.5 MW)	220
6	PWR—6 Wanakbori TPS Extn. (3 × 210 MW)	11149
7	PWR—7 Lignite based TPS in Kutcghh (2 × 70 MW)	13153
8	PWR—8 Sikka TPS (1 × 120 MW)	9266
9	PWR—9 Gandhinagr TPS Extn. Unit No. III (1 × 210 MW)	14908
Sub-Total (B)		56281
(C) New Schemes for Benefits during VIIth Five Year Plan		
10	PWR—10 A. E. Co.'s Extn. Unit (1 × 110 MW)	2700
Sub-Total (C)		2700

(D) Approved and ongoing Schemes for Benefits during VIIth Five Year Plan

11 PWR-11	Narmada Hydro Project	14650
	Sub-Total (D)	<u>14650</u>

(E) New Schemes for Benefits beyond with Plan

12 PWR-12	Assistance to GIPCO (Utran TPS)	644
13 PWR-13	Asstt. to A. E. Co. (1 × 210 MW)	
14 PWR-14	Gandhinagar TPS Extn. Unit IV (1 × 210 MW)	
15 PWR-25	Gas based TPS at Kawas (3 × 130 MW)	
16 PWR-16	Gas based TPS at Kawas (Extn) (3 × 130 MW)	
17 PWR-17	Joint Pit Head TPS at Bandhav (4 × 500 MW) Gujarat Share—1000 MW)	
18 PWR-18	Joint Pit head TPS at Mand (2 × 210 MW) (Gujarat's share 210 MW)	7702
19 PWR-19	Narmada TPS at Sinor (4 × 500 MW)	
20 PWR-20	Sikka TPS Extn. Unit-II (1 × 120 MW)	
21 PWR-21	Lignite TPS Extn. Unit-III (1 × 70 MW)	
22 PWR-22	Installation of 2 × 4 MW D. G. Sets at KFTZ	
23 PWR-23	Installation of 60 MW D. G. sets at various places	
24 PWR-24	Micro Hydel Schemes	
	Sub-Total (E)	<u>8346</u>

(F) Renovation Schemes

25 PWR-25	Dhuvaran modification (Diaphragm wall)	
26 PWR-26	Renovation schemes at Dhuvaran	3939
27 PWR-27	Renovation schemes at Gandhinagar TPS.	
28 PWR-28	Renovation schemes at Ukai TPS	
	Sub-Total—(F)	<u>3939</u>

TOTAL : GENERATION—(A+B+C+D+E+F) 87485

1	2	3
II. 29 PWR—29 Transmission and Distribution Schemes		
	1. Transmission Schemes	40000
	2. Distribution Schemes	10000
	Total—II	50000
III. System Improvement schemes		
IV.	30. PWR-30 Rural Electrification Schemes	7240
V.	31. PWR-31 Survey and Investigation	100
VI.	32. PWR—32 Acquisition of licences	200
	33. PWR-33 Training, Research and Development	200
	34. PWR-34 Scheme for enforcement of House hold appliances by CE (E)	30
	35. PWR-35 Scheme for providing rural safety C. E. (E. S.)	70
	36. PWR-36 Plasma Physical Progress unit	25
	Total—VI	525
	Total—A—Power Development	145350
B. NEW AND RENEWABLE SOURCES OF ENERGY		
	37. PWR-37 Assistance to GEDA	936
	38. PWR-38 Bio-gas Plants	364
	Total—B	1300
	Grand Total	146650

6 INDUSTRIES AND MINERALS

6.1. Introduction

6.1.1. Rapid and balanced industrialization in the State is necessary with a view to benefiting the common man in the shape of increasing availability of goods at fair prices, larger employment and higher per-capita income. Industrialization is also essential to provide the much needed support for agricultural and for the development of infrastructural facilities by energy, transport, housing etc. The pattern of distribution of benefits of industrialization should be such that it should cover a large segment of the State population both urban and rural.

6.1.2. Till 1960, the industrial economy of the State rested primarily on the textile industry and engineering industries ancillaries to textiles. The industrial activity was mainly concentrated at around major city centres like Ahmedabad,, Vadodara, Surat, Rajkot and Bhavnagar etc. In 1960, the State inherited around 2000 small scale units and 3000 factories and ranked eighth amongst the industrialised States in the country. The then existing industrial activity, therefore, had only a marginal impact on the economy of the State. The discovery of oil and gas and setting up of refinery at Koyali near Vadodara almost after the inception of the State could be rated as a land-mark signalling the beginning of a new era of industrial activity. The fertilizer complex of GSFC, the Petrochemical complex of IPCL and a large number of other major projects followed soon. The timely planning of industrial complexes at Vapi, Surat, Ankleshwar and Vadodara by GIDC has aided the growth of chemical industries in Central and South Gujarat. The changing pattern of industrial development is reflected in the significant reduction in the share of textile group while the new group of industries like chemicals and engineering have raised their share by 2-1/2 times. The same trend is revealed in generation of national income in different groups of industries. This is notwithstanding the fact that the textile group itself has increased its production and employment in absolute terms.

6.1.3. The general trend in industrial development had been towards concentration of industries in big cities such as Ahmedabad, Vadodara, Surat, Rajkot etc. because of the easy availability of physical as well as social infrastructure around these places. Availability of raw materials, technical skills, market and entrepreneurship also contributed to this tendency. As a result of this, many areas in the State remained backward in terms of industrial development. However, adoption of a purposeful and dynamic policy of the State Government has helped the dispersal of industries to rural and backward areas.

6.1.4. Industrial development as a catalyst for faster growth in the coming decades should have the following objectives :

- Upgradation of technology, modernisation, better utilization of assets and increase of production ;
- Higher employment generation ;
- Correction of regional imbalances and preferential development of industrially backward areas ;
- Strengthening of the agricultural base by according a preferential treatment to agro-based industries ;
- Faster promotion of export-oriented and import substitution industries ;

—Promoting economic federalism as an equitable strategy of investment and the disbursement of returns amongst wide spread small growth units in rural and urban areas.

—Improving the quality of manufactured goods and services.

6.2. Review of progress during Sixth Plan

6.2.1. The policies and programmes for the Sixth Plan were framed with the following objectives :

(i) Generating massive employment opportunities through special emphasis on Small Scale, Cottage and Village Industries and employment-oriented schemes.

(ii) Achieving further diversification and broad basing of industrial sector with emphasis on promoting industries based on local raw material. Special emphasis was laid on promoting Electronics and Engineering projects.

(iii) Providing adequate infrastructure, finance and other inputs for developing local talent and enterprise.

6.2.2. During the course of the plan period, the State Government offered a new package of incentive providing Capital Subsidy and Sales Tax incentives for industries located in backward areas/growth centres. The new industrial policy declared by the Union Government in July 1980 gave special emphasis on promoting a large unit known as "Nucleus Plant" to promote ancillaries and small scale industries in the backward region. In conformity with this policy, the State Government has declared special incentives in August, 1980. Under the scheme, units having investment of above Rs. 50 lakhs or employing more than 100 workers on permanent basis became eligible for availing the liberal benefits, especially of Sales Tax Exemption/Deferment under this scheme subject to certain locational criteria.

6.2.3. The State Government also adopted a policy for broad basing the industrial sector of the State with a view to developing backward area as well as promoting large engineering and electronics industries in the State. A special incentive scheme for Large Engineering and Electronics Projects known as "LEEP" scheme was declared during the Plan period. The scheme provides for interest free quasiequity loan on liberal terms. The scheme appears to be instrumental in attracting a large automobile unit for manufacturing commercial vehicles in the backward district of Panchmahals.

6.2.4. Realising the constraints in infrastructure coming in the way of setting up of large units in backward areas, the State Government has declared a special incentive scheme known as interest free Sales Tax Loan in lieu of Sales Tax Deferment benefit for meeting the expenditure on railway siding, powerline upto the boundary limits for the plant and water supply system from a source outside the precincts of the unit.

6.2.5. The State Government also made special efforts for promoting the Electronics Industry. In addition to further expansion of Gujarat Communications and Electronics Limited, GIDC has also set up an Electronics estate at Gandhinagar in order to encourage the Electronics Industry in the State.

6.2.6. The State Government continued the public sector/joint sector projects through joint sector project promotion programmes of GIIC, GSFC, GAIC, etc., During the plan period, GIIC commissioned projects in the fields of chemicals, leather machine tools, polymer etc. Three more projects for manufacturing polybutenes, Ceramic Capacitors and Clutch Plate are already in production while some more

units in the area of white cement, instrumentation engineering, plastics, drugs and pharmaceuticals etc. are likely to go into production during the plan period.

6.2.7. The State Government has set up a large ship-breaking complex at Alang in Bhavnagar District. The complex is being further developed with addition of more number of plots and providing infrastructure facilities. The complex will be one of the largest ship-breaking complexes in Asia.

6.2.8. During the plan period, the State Government strengthened the industrial promotional activities. Special measures have been taken up for attracting investments both from Non-Resident Indians as well as entrepreneurs from within the country.

6.2.9. The State is setting up a full-fledged laboratory with pilot facilities at Vadodara under Gujarat Industrial Research and Development Agency (GIRDA). A branch of GIPET has also been established at Vatva, Ahmedabad for development of skills and facilities in the field of Polymers and Plastics industry.

6.2.10. This phenomenal growth is supported by the State's progressive policies administered through the office of Industries Commissioner and D. I. C. in each District, Corporations, viz. GIDC, GIIC, GSIC, etc.

6.2.11. The GIDC charged with setting up industrial estates with infrastructure facilities, has achieved remarkable progress as indicated below :

Item	Actual Achievement 1980—85	Cumulative Achievement as on 31-3-85
1	2	3
1 No. of Areas set up	58	162
2 Land Acquisition in Hectares	4873	11501
3 Areas developed (in Hect.)	2124	6075
4 No. of Sheds constructed (New + Spillover)	3182	8619
5 Sheds allotted	2982	8212
6 No. of Housing Quarters constructed	4831	9171
7 No. of Housing quarters allotted	4883	7878

6.2.12. The Gujarat State Financial Corporation has sanctioned term loan assistance of Rs. 512.5 crores to 24485 units till March, 1985. The disbursement has been of the order of Rs. 314 crores to 16950 units. Of this total term loan sanctioned, as much as Rs. 388.10 crores accounted for 23704 SSI units. In the field of recovery, the performance of the corporation was equally impressive.

6.2.13. The Gujarat Industrial Investment Corporation Limited, is engaged in providing loans to large and medium industries units. As on 31st March, 1985, the Corporation has sanctioned loans to 2517 units to the extent of Rs. 227.75 crores.

6.2.14. The INDEXb continued to play its role in the development of the Industries. The organisation earned the recognition of Government of India with recommended INDEXb as a "model" of development/extension activity to the other States.

6.2.15. About 45,700 enquiries were disposed of as on 31st March 1984 by this organisation. Out of this; a good number of projects (1300) were assisted for clearances from Government of India/State institutions.

The assistance to the Non-Residents for setting up projects was also accelerated and 152 projects went into production as on 31st March, 1985.

6.2.16. A continuous effort has been made for promoting Small Scale and Village and Cottage Industries in the State. The District Industries Centres have been set up in all districts except Dangs. A Monitoring Cell has been established at State level to coordinate and supervise the progress of the District Industries Centres and to help in smooth mplementation of the various programmes. In addition to the cash subsidy, the small scale units are offered subsidy on power consumption, subsidy for establishing testing facilities for better quality control and subsidy on quality marking under the package assistance to SSI units. Cottage Industry receives the benefits of subsidy both on capital and also on interest under the bankable schemes.

6.2.17. Under the Village and Cottage Industries Sector, Gujarat has provided separate agency for looking after different activities such as Khadi and Village Industries, Handloom and Handicrafts training and financial assistance to the artisans and technical marketing guidance to the rural artisans. The development of Handloom Industry in Gujarat was given significant importance in the context of 20 point programme. An institute of Handloom Technology has been started at Gandhinagar for strengthening the training facilities in this sector.

6.2.18. During the Sixth Plan period the major achievements under various activities of village and cottage industries are as below :

Item	Unit	Actual Achievement 1980-85
1	2	3
Handloom Production	M. Mtrs	41.13
Khadi Production	Rs. in lakhs	3522
Employment in Khadi Production	Nos.	85000
Financial assistance to Industrial Co-operative Societies	Societies Nos.	1554
Beneficiaries covered	Persons Nos.	58608
Industrial Artisans trained	Trainees Nos.	11742
Financial assistance to individual artisans	Persons	81808

6.2.19. In 1960, there were 3647 working factories providing employment to 3.30 lakhs persons. The number of these factories and the number of persons employed. Therein rose to 10674 and 6.36 lakhs respectively at the end of 1980. The number of persons working in factories and employment therein further increase to 12586 and 6.81 lakhs respectively at the end of 1983.

6.2.20. The productive capital in the registered factory sector in 1961 was - Rs. 245.79 crores producing goods worth Rs. 420.23 crores. This has increased to Rs. 3792 crores and Rs. 7309 crores in 1981-82. The net value added was Rs. 121.33 crores processing goods worth Rs. 420.00 crores. This has increased to Rs. 3792 crores and Rs. 7309 crores in 1981-82. The net value added was Rs. 121.33 crores at the end of 1961 and this rose to Rs. 1167 crores in 1981-82.

6.2.21. Correspondingly, the registration of small scale industrial units also shows consistent trend upwards. The total number of small scale units registered with industries department in 1961 was 2161. This increased to 43682 in 1980 and 68595 as on 31st March, 1985.

6.2.22. The Directorate of Geology and Mining has undertaken various activities for development of Mines and Metallurgical Industries during Sixth Plan which are stated below :

Item	Unit	Anticipated Achievements 1980-85
1	2	3
Drilling	Mtrs.	27114
Geological Mapping	Sq. Kms.	6290
Analysis of Samples	Nos.	19255

6.2.23. Gujarat Mineral Development Corporations, existing projects of Fluorspar, Silica Sand, Bauxite and Lignite mining have shown better results. Further, multimetal Project at Ambaji and Lignite Project near Jhagadia and also the ambitious Alumina project in Kachchh are under active implementation.

6.3 Approach and Strategy

6.3.1 With less than one acre per head as the land available for cultivation and only 20% of this land getting irrigation facilities, the State has to place a heavy emphasis on industrial development. The approach during the Sixth Plan was to achieve the dispersal of industries to hitherto less developed talukas and villages and thereby aid the area development activity and contribute to the overall development and well-being of the people residing in these areas using industry as a major tool for area development. The thrust during the Seventh Plan will carry this objective further for achieving an accelerated growth of the industrial activity in the State.

6.3.2 At the time of its inception in the year 1960, the industrial activity in the State was dominated by textile and allied industries. Also the industrial development was more or less concentrated around the city centres of Ahmedabad, Vadodara Surat and Rajkot. The decision to establish Gujarat Refinery near Vadodara, almost coinciding with the inception of the State, signalled a beginning of diversification with the complexes of GSFC, IPCL etc., The State today has become a major producer of Petrochemicals, Fertilizers, Dyes and Intermediates, common salt, Milk and Baby food products, diesel engines, Brass parts, Sulphur Black, Pharmaceutical formulations etc.

6.3.3 The share of chemical and allied items produced in the State is around 14% in the national production. In the next five years, it is expected that this

share will rise to about 23% with further investment in the Chemical and allied sector of the order of Rs. 3,000 crores.

6.3.4. With this background the State will have to evolve a policy of effective and coherent industrial development laying emphasis on the following factors. The State will encourage engineering, electronics, engineering plastics, agro-based, mineral industries and also the industries in the area of Salt and Marine Chemicals. In other words, the industry mix during the Plan period should see more industries coming up in these groups. Specific efforts to augment the availability of infrastructure, requisite manpower, other facilities and incentives will have to be made.

6.3.5. The Government of India has laid considerable emphasis on the efficient running of the public sector/State sector/joint sector units. The strategy during the Seventh Plan would be to ensure that Gujarat continues to remain in the fore front in this area through suitable monitoring of State Sector/Joint Sector Units.

6.3.6. Minerals also offer a tremendous potential for development. The strategy during the Seventh Plan should be to prepare and implement a blue print of action plan for the mineral based industries especially refining and processing of the minerals and industries in the area of ceramics.

6.3.7. The State has been implementing number of innovative schemes in agriculture. With the implementation of Narmada Project, the potential for irrigation would also improve. This should lead to district improvement in availability of agricultural produce as raw material for agro-based industries. The strategy for the Seventh Plan in this sector would be to identify such areas so as to promote agro industry complexes/projects.

6.3.8. The social forestry and cultivation of plantations like Eucalypts, Subabul, Jojoba etc., on large scale is likely to bring in a new concept of "Farm Factory Combination". The strategy during the Seventh Plan will be to encourage this development so that proper return is available to the cultivators by building up further processing outlets.

6.3.9. The Electronics Industry has been identified as one of the important industries in the State and today enjoys a special package of incentives. The strategy during the Seventh Plan will be to establish more centres with necessary infrastructure by way of common facilities.

6.3.10. The industrial activity in the State has been concentrated over a 400 kms. strip between Ahmedabad and Vapi. The industries located here enjoy inherent advantage in terms of proximity to Bombay, major transport links of broad-gauge and national highway/nearness to the city centres like Surat, Bharuch, Vadodara and Ahmedabad and availability of a reasonable level of social infrastructure. The GIDC's setting up their major industrial estates here, has accelerated this process further. The strategy during the Seventh Plan will be to attract industries to the North eastern part of Gujarat, Saurashtra and North Gujarat. This would call for investment for creation of infrastructure facilities in terms of power, water supply communication, roads etc., The alternative could be to provide compensation for lack of these facilities to those industries deciding to go to this area.

6.3.11. The State has been offering incentives for establishment of industries in the backward areas/growth centres. Composition of the incentive available has been slightly changed because of Government of India's decision to provide capital subsidy to 8 more districts (including 'No Industry' District of Dangs) over and above the earlier eligible districts of Bharuch, Panchmahals and Surendranagar. This emphasises the importance of the incentives for attracting industries to the less developed

areas. The State's package of incentives includes two major components, viz. Capital Subsidy and Sales Tax benefits. Our experience indicates that the nearest area to the developed centre in the backward region gets developed faster indicating that the area development is achieved better through the process of Induction rather than 'Transplantation'. The State has been canvassing a concept of accepting smaller units than the district as the unit (taluka or block) for providing incentives. It is also felt that a slightly higher gradient will have to be provided for motivating the industrial units to come to the areas away from the developed centres. The strategy during the Seventh Plan will be, therefore, to provide a suitable package of incentives with proper gradients, to achieve the balanced regional growth.

6.3.12. The Industrial Policy of the Government of India, declared in 1980 has emphasised on the need and importance of development of a "Mother Unit" or "Nucleus Plant" in hitherto undeveloped districts. The logic behind this is that unless a large unit suitable to that particular area is established it is difficult to promote ancillary and small scale industries. Taking a cue from this and accepting the importance for attracting large engineering and electronics projects, a special scheme has been evolved for such units i.e. the "LEEP" scheme. The strategy during the Seventh Plan will be to carry further the efforts to attract such units.

6.3.13. Another innovative project during the Sixth Plan by the State Government was "Project Linkage.". The project aimed at increasing the catchment area of the industrial townships/estates in the backward regions by way of providing fair weather transport facilities and also constructing housing and other amenities in villages. This should ease the pressure on the industrial township for providing the housing facilities and accommodation to the work force and also help promoting local employment, reduce absenteeism during the monsoon season etc. Looking to the favourable response to this project during the Sixth Plan, it is proposed to provide such facilities to more areas during the Seventh Plan.

6.3.14. The State has certain concentrated pockets of industries like diesel-engines at Rajkot, brass parts at Jamnagar, beam-scale industry in Sabarkundla, sari printing and processing at Jetpur, diamond cutting and polishing at Surat etc. The strategy during the Seventh Plan will be to pay emphasis on up-dating the technology through modernisation and suitable product upgradation to avoid any possibility of sickness in such sector at a later date. A mechanism to provide advance warning signals in the event of such symptoms of sickness being noticed should be established.

6.4. The Programme for the Seventh Plan

6.4.1. An outlay of Rs. 25785 lakhs has been provided for Industries and Mineral Sector for the Seventh Plan. The sub-sectorwise breakup is as below :

		(Rs. in lakhs)
Name of the Sub-sector		Outlay for Seventh Plan
A.	General Industries	1920
B.	Large and Medium Industries	7637
C.	Village and Small Industries	
	(i) Small Industries	9361
	(ii) Village and Cottage Industries	5000
D.	Mining and Metallurgical Industries	1867
	Total	25785

6.4.2. General Industries

6.4.2.1. The programmes covered under this Group are shown below along with the outlay provided for the Seventh Plan 1985-90.

(Rs. in lakhs)

Programme	Outlay for Seventh Plan
Compilation of Industrial data.	65.00
Estt. of Salt Cell in I. C.'s Office	25.00
Research and Development	500.00
Hosiery training and Research Centre	50.00
Subsidy for acrylix based industries	15.00
Industrial Research Laboratory (GIRDA)	200.00
Export Award	5.00
Pollution Control Scheme	60.00
Construction of Residential quarters for Officers/employees of Government Press and other construction	200.00
Establishment of two new Government Printing Presses	800.00
Total	1920.00

Compilation of Industrial data

6.4.2.2. At present the Technical and Statistical Wing is working in the Office of the Industries Commissioner collecting and monitoring the Industries data. Presently, the data collected by ASI has a time lag and is limited to factory sector only. The census sector data is normally limited to the factories which employ more than 50 persons and operated by power which accounts for around 2,500 units in a year for which year-wise total census is carried out. Due to this limitation it may be difficult to get the data for the purpose of detailed analysis on various parameters of industrial growth.

6.4.2.3. Further, there are more than 60,000 small scale registered units and about 1,000 medium and large scale sector units existing in the State but systematic data is not available for these units. The data relating to the registration of SSI units compiled on the basis of registration made with DIC's could partially account for the total number of registered units. Further, the details available corresponding to the investment and employment are available only at the time when the unit was registered. The production data of the SSI units are not available. Even medium and large sector data of the Gujarat based units though received from the respective units, are not compiled except for 20 or 30 items.

6.4.2.4. Apart from the above, entrepreneurs requiring guidance for the various technical processes available for a product or the data on the processes which are already being utilised by the existing units are not available. Thus, there is a need for an organised way of collecting the data and retraining the same as and when required. These data are voluminous and varied in technical details and at the same time very important from the technical point of view. These data will require to be compiled through a computer.

6.4.2.5. For the collection of additional data required by various departments, the data of industries in Gujarat can be broadly grouped into three main segments, viz. (1) Small Scale sector, (2) Medium and large scale sector and (3) data on technical processes adopted by the DGTD registered units.

6.4.2.6. It is proposed to strengthen the statistical wing in the Industries Department for which an outlay of Rs. 65 lakhs is provided for the Seventh Plan.

Establishment of Salt Cell in Industries Commissioner's Office

6.4.2.7. Gujarat produces 60% of the Salt produced in India. The Salt Department, Government of India is collecting salt-cess on removal of salt Rs. 3.50 per M. T. and the salt cess fund so collected is to be utilised for the development and labour welfare activities such as roads, water supply schemes, medical facilities, educational facilities, labour quarters, rest sheds etc. for agarias and labourers working in the Salt works. Therefore for getting the maximum benefit of salt-cess fund for Gujarat State, a Salt-Cell has been created in Industries Commissioner's Office. This scheme is proposed to be continued in the Seventh Plan for which a provision of Rs. 25 lakhs has been made.

Industrial Education, Research and Training

6.4.2.8. The research organisations are given incentives for industrial research. Various programmes are already in progress for which a provision of Rs. 500 lakhs is made for Seventh Plan for the following activities.

Sr. No.	Name of the Scheme
1.	Central Institute of Plastic Engineering
2.	Electrical Research and Development Agency
3.	Man made textile Research Association
4.	National productivity Council
5.	Air Pollution Survey
6.	Veraval Rajula Survey
7.	ISI. Lab.
8.	Central Glass and Ceramic Research Institute
9.	ISI. membership
10.	Poly Technological clinic
11.	CLRI
12.	Field testing station
13.	Tool Room Project.

Hosiery Training and Research Institute, CED

6.4.2.9. The Hosiery Training Institute set up in the state in 1980 is proposed to be suitably expanded by providing for its own building and modern technological equipments in the Seventh Plan period. The Institute will provide training to 1240 persons in hosiery trade, generating 9000 employment opportunities; for which a provision of Rs. 50 lakhs is made in the Seventh plan.

Subsidy for acrylic-based hosiery industry

6.4.2.10. The State Government has introduced an incentive scheme for better utilisation of acrylic fibre manufactured by IPCL. This has been done with a view to promote employment in the decentralised sector. The incentives consist of Sales Tax exemption on the acrylic yarn purchased from Gujarat by hosiery unit and a subsidy of Rs. 2 per Kg. of yarn purchased from a spinning mill in Gujarat. Recently, the State Government has also exempted sales tax on acrylic fibre. It is expected that the scheme will now pick up with these incentives. It is also proposed to continue the scheme in Seventh Plan for which a provision of Rs. 15 lakhs has been made.

Gujarat Industrial Research and Development Agency (GIRDA)

6.4.2.11. Government of Gujarat have set up in August, 1981, the Gujarat Industrial Research and Development Agency (GIRDA) with the objective of promoting research, development, extension assistance and guidance in respect of technology, raw materials, finished products, quality control, including development of new uses of polymers etc. The Industrial Research Laboratory has since been merged with GIRDA.

6.4.2.12. In the Seventh Plan efforts will be made to take up research and development projects jointly with IPCL, GSFC etc., emphasis will be on the development of new uses of Plastics and Polymers.

6.4.2.13. A provision of Rs. 200 lakhs has been made for the development of this institute during the Seventh Plan.

Subsidy to SSI UNITS for Pollution Control

6.4.2.14. The task of Pollution control and protection of environment is very vast in dimension. Gujarat State particularly has good potential for Chemical Dye-stuff and Pharmaceutical Industries. This sphere of Industry is such where air and water pollution will be a problem and the need to control and prevent pollution is acknowledged by all.

6.4.2.15. With a view to control water and air pollution by such pollution existing units Government of Gujarat has set up a Board known as "Gujarat Water and Air Pollution Control Board" which administers Acts and Rules regarding pollution control. However, it is necessary to create more and more awareness of the problems and also to assist such units in their efforts to abide by the requirements of the Board atleast in the initial stage.

6.4.2.16 Under the scheme the cash subsidy is sanctioned at the rate given below :

(1) For consultancy the subsidy may be to the extent of 80% subject to the ceiling limit of Rs. 2,500/- to the individual unit.

(2) The subsidy on account of the expenditure made on creating the pollution control facilities is 50% of the cost of the plant machinery and laboratory equipment or Rs. 10,000/- whichever is less. The ceiling has been kept at Rs. 10,000/- taking into account prevailing cost of plant and machinery and equipment.

(3) For engaging technical person having minimum qualification Diploma in Civil-Mechanical, Electrical or Chemical Engineer, B. Sc. graduate on maintenance and operation of pollution control facilities, the unit will be eligible for cash subsidy. The ceiling limit is Rs. 150/- per month per person and not exceeding 2 persons per unit.

6.4.2.17. During the Sixth Plan, 116 units have been assisted. It is proposed to continue this scheme in Seventh Plan for which a provision of Rs. 60 lakhs is made.

Establishment of two new Government Printing Presses, Stationery Stores, Book Depots and Staff Quarters

6.4.2.18. At the time of formation of new Gujarat State, there were only three Government Presses viz. Government Presses, Vadodara, Rajkot and Bhavnagar. The Government Central Press, Ahmedabad was started in the year 1961--62 and Government Photolitho Press, Ahmedabad was started in the year 1964. Since then no other Government Press has been added resulting in heavy arrears in printing work and also heavy complaints regarding delay in printing from all the Government departments.

6.4.2.19. The present installed capacity of the Government Presses is as under :

(1) Composing	2,42,544	Standard Pages
(2) Printing	9,12,624	F ³ cap impression in 1,000.
(3) Binding	10,49,592	Standard Manhours

6.4.2.20. The incoming printing work (workload) received by the present - Government presses is as under approximately.

(1) Composing	3,03,143	Standard pages.
(2) Printing	12,17,609	F ³ cap impression in 1,000.
(3) Binding	20,97,326	Standard Man hours.

6.4.2.21. The work load sharply increases during budget, Vidhan Sabha Session, Elections etc. In order to cope-up with the Government printing work it is necessary to establish two new Government presses. Approximately 10,000 Sq. Mt. land will be required for two Government Presses. Tentative cost of two Government Presses is as under :—

(A) Building :	<i>Rs. in lakhs</i>
1. Cost of 2 buildings for Government Presses	200
2. Cost of 4 New Buildings for stationery stores	100
3. Cost of 4 New Buildings of Book Depot and Form stores	150
(B) Plant and Machinery :	
1. Cost of Plant and Machinery for two new Government Presses	400
(C) Raw Materials :	
1. Raw materials for two new Government Presses	400
(D) Staff	
1. Staff for Government Presses, Stationery stores, Book Depot and Forms Stores	150
Total	1400

6.4.2.22. The additional approximate capacity by installing two new Government will be as under :—

(1) Compose	1,80,000	Standard pages
(2) Printing	5,00,000	F'cap impression in 1,000.
(3) Binding	1,50,000	Standard Man hours.

6.4.2.23. An out lay of Rs. 800 lakhs has been provided for the Seventh Five Year Plan for the following purposes :

- (1) Government Press
- (2) Government Stationery and Book Depot
- (3) Staff and raw materials

6.4.2.24. It is also proposed to construct quarters for the Officers and Staff of the Government presses for which an outlay of Rs. 200 lakhs is provided for the Seventh Plan.

6.4.3. Large and Medium Industries

6.4.3.1. The programmes covered under this group are shown below alongwith the outlay proposed for the Seventh Plan :

(Rs. in lakhs)

Programme I	Outlay for Seventh Plan 2
Petroleum, Chemicals and Fertilizers Industries	
Gujarat Petro-Chemicals Corporation	700.00
Ship Building and Aeronotical Industries	
M/s. Alcock Ashodown Co.	62.00
Tele-ommunication and Electronic Industries	
Loan/share Capital contribution to GC and EL	750.00
Consumer Industries	
Gujarat State Textile Corporation	500.00
Industrial Financial Institution	
GIIC Market Borrowings	500.00
GIIC Project	3500.00
Loans to GIIC for interest free loan for Large Engineering and Electronic Project (LEEP)	300.00

Other expenditure

Index grant for promotional activities	100.00
Monitoring Cell for information of letter of intent	25.00
Grant of loan to industries for the amount of sales tax paid on sales of finished products	400.00
Grant of loan to industries in lieu of sales tax deferment	500.00
Infrastructure loan in lieu of Sales Tax deferment	300.00
	7637.00

Gujarat State Petrochemical Corporation Limited

6.4.3.2. Government of Gujarat had approached in 1979—the Central Government with a request to grant letter of intent for setting up a gas cracker plant for the production of Ethylene, propylene and other down-stream projects. A revised feasibility report and a report on the environmental aspects was submitted to Government of India during 1983. The revised feasibility study envisages the capacities to be created as follows :

Products Pattern and capacities (TPA)

(i) Ethylene (total)	160,000
(Merchant sale)	5,000
(ii) HDPE	100,000
(iii) PVC	100,000
(iv) Caustic Soda	
—total	82,500
—Merchant sale	75,250
—Propylene	13,270
—Acetylene	1,120

6.4.3.3. The revised project cost is estimated around Rs. 805 crores. On the the basis of debt equity ratio 2 : 5 : 1 the equity capital base for project works out to Rs. 230 crores. The pattern of equity holding is yet to be finalised. The State Government may implement this project with its contribution to the extent of 26% of the equity.

6.4.3.4. Considering the equity base of Rs. 270 crores, State Governments - contribution towards equity would be Rs. 60 crores.

6.4.3.5. The debt component to the extent of Rs. 575 crores is expected to be raised from Central Financial Institutions and other borrowings.

6.4.3.6. State Government has formed a fully owned Government Company " Gujarat State Petro-chemicals Corporation Limited " (GSPCL) with the paid up capital of Rs. 69 lakhs till-to-day. The required feasibility and environment reports

have been submitted to Government of India. The site for the project has been selected and has since been approved by Government of India. The marketing aspects of the products under this project have also been studied. The project is at a take-off stage of the implementation and it is expected that Government of India may favour the State Government with a letter of intent in very near future.

6.4.3.7. The project has a tremendous significance to the State economy. This complex will enable the state to utilise off-shore gas as feed stock for producing petro-products. The proposed petrochemicals complex will serve as mother unit for down stream projects and open up avenues for many ancillaries and dependent units. This being capital intensive industry, employment generation is very small. The indirect employment potential as a result of the implementation of this project will however, be very high. The State will also gain in technological improvement in this field.

6.4.3.8. The scheme is continued from the Sixth Plan, but the implementation of this project will commence during the Seventh Plan and is expected to be completed during the plan period.

6.4.3.9. An outlay of Rs. 700 lakhs has been provided in the Seventh Plan 1985-90 for this Corporation.

Alcock Ashdown and Company

6.4.3.10. Alcock Ashdown and company is a ship building unit acquired by the Government of India and handed over to the Industries Commissioner, Government of Gujarat, for operation. The unit has now been revived and its performance has improved in the last 2 years.

6.4.3.11. Since the existing facilities available with the unit at Bhavnagar has got natural limitations like low draft, low-load-bearing capacity of the project remains limited to building smaller vessels, it is proposed to expand the project in a location which is more suitable. The total cost of the expansion will be around Rs. 350.00 lakhs. Since this is a Departmental Undertaking of the Government of India, the as well as the State Government.

6.4.3.12. An outlay of Rs. 62 lakhs has been provided for Seventh Plan 1985-90.

(C) Tele-Communication and Electronic Industries. Gujarat Communications and Electronics Ltd.

6.4.3.13. G. C. and E. L. was incorporated on 31st May 1975 by the Government of Gujarat with a view to accelerate the development of Electronic Industries in Gujarat State through establishment of manufacturing, Research and Development facilities. It started functioning from July, 1975. GC and E. L., in short-span, has acquired a National Status and is recognised as a reliable source both in terms of quality and delivery schedule of a complete range of highly sophisticated professional grade electronics equipment required by Railways, Ports and Telegraph, Oil and Natural Gas Commission, Defence Services, Civil Aviation, Indian Television etc. GC & EL also undertakes a whole garment of assignment on a turn-key basis including systems engineering, procurement of appropriate equipment and their integration into a total system followed by installation and commissioning.

6.4.3.14. The Company resorted to three different approaches for the acquisition of technology appropriate to the sophistication of these lines of production, viz. (a) purchase of technology a broad, (b) acquisition of technology from national-laboratories and research institutions in India and (c) generation of technology by the Company's own development and engineering group. product mix.

6.4.3.15. During the initial period of 1975-80 the Company was able to launch Development hand Engineering activities and find the product lines. By the year 1979-80 the Company had completed Engineering and Development of Communication equipments and other products were also developed like PCM Mux, ILS, ERVHF etc. The construction of new factory complex was initiated.

Progress during Sixth Plan :

6.4.3.16. During the period 1980-81 to 1983-84, GCEL has undertaken many new products with technical know-how from and under collaboration with various Indian and foreign Collaborators. It is now almost on track to complete the supply of Low Power Transmitters to Doordarshan in record time.

6.4.3.17. In the Sixth Plan the State Government had sanctioned and released an amount of Rs. 570 lakhs to GCEL.

Programme for Seventh Plan 1985-90

6.4.3.18. (1) The following main programme will be continued in the Seventh Plan.

 Navigational Aids.

 Telecommunication system.

 Video systems.

 System and Turnkey products.

New Factory Complex at Gandhinagar

6.4.3.19. During the Plan period the company has embarked upon very high production and manufacturing programme of electronic equipments in 4 major groups as explained above. The present factory building and facilities, will have to be augmented and expansion will have to be under-taken. Moreover, it will be necessary for the company to have another factory at Gandhinagar Electronics Estate. The telephone project, video products and other communication equipments will be manufactured at the second unit to be established at Gandhinagar. The total capital expenditure in respect of land and building for second unit at Gandhinagar will be Rs. 200.00 lakhs.

Engineering and Indiginisation of 314 VCR.

6.4.3.20. Even though the Company has got knowhow from Sony Corporation, developmental expenditure will have to be incurred for manufacturing of machines so that selective module can be indiginised to meet the original specification.

Improvement for DVM Unit for 5 MH² band width

6.4.3.21. GCEL manufactures 1" VTR which employs DVM unit which facilitates slow motion special effect generators. Further developmental expenditure will have to be incurred to improve such DVM unit.

Special effect generators/Video mixer

6.4.3.22. The Company has already established its video line to cater for high professional video system requirement of Doordrshan, Ministry of Education etc.

6.4.3.23. Each studio requires atleast 2 Nos. of special effect generator and Video mixer to prepare the master programmes with visual effects. At present Doordarshan is importing, these units at a very high cost. The company has planned to develop this unit with selling price at around Rs. 2.00 lakh and expected market is 50 Nos. per annum.

Digital Radio.

6.4.3.24. This equipment is being developed for P & T Communication Net Work as total modern communication pattern is going digital. This enables to establish point to point communication over long distances of about 50 K.Ms apart up to 120 Channeles. PCM MUX being produced in GCEL can interface this equipment to replace existing line communication net work.

6.4.3.25. The requirement of P & T for such Radio Relay Equipment is so large that they are looking for several manufactures. ITI & BEL are prospective manufacturers of such equipments and they are in advanced-stage of development of such terminals the company entered into agreement with Space Application Centre for knowhow transfer for the Digital Area. The power amplifier portion will be developed in house and integrated.

Other Projects

- (a) High precision Monitor for graphic and Data display.
- (b) High Speed Modem.
- (c) Intelligent Terminals.
- (d) Test Control Instrumentation.
- (e) Encodar/Dcdor.

6.4.3.26. The above projects will be undertaken on development basis. Such projects are generally based on requirement of various customers. Expenditure on research and development making proto type and units which can be sold in future will have to be incurred.

Employment

6.4.3.27. At present the Corporation has provided direct employment to approximately 1000 employees and indirect employment cannot be quantified. The indirect employment will be through various sub-contractors. During the Plan period more than 1000 sub-contractors will be working for meeting the requirements of GCEL. Similarly others like transport contractors, manufacturers of packing materials, packing bowes and other supplies will also be providing direct employment to skilled and un-skilled workers.

6.4.3.28. The Programmewise financial requirement by GC & EL expected turnover is mentioned below:

(Rs. in lakhs).

Project	Outlay for Seventh Plan.	Expected turnover during Plan period
1	2	3
1. Navigational Aids.	210.00	4839.95
2. Communications Systems.	1400.00	21382.74

1	2	3
3. Video Systems	500.00	10609.73
4. Systems (Turnkey) & Misc. Projects.	250.00	1665.00
5. Gandhinagar Factory Complex (Land and Building)	200.00	..
6. Development of Projects and subsequent mfg. activities.	197.00	..
Total:-	2757.00	38497.42
<i>Sources of Funds</i>		
1. Equity Capital/Loan from Government.	750.00	..
2. Internal Resources	882.00	
3. Loan from financial institutions.	1125.00	
Total:-	2757.00	

6.4.3.29. Against the total capital requirement of Rs. 2757 lakhs by GC & EL, an outlay of Rs. 750 lakhs has been provided by the State Government in the Seventh Plan.

Consumer Industries.

Gujarat State Textile Corporation Limited

6.4.3.30. The textile industry is the oldest and the biggest of all major industries in India. The industry consists of two major sectors, the organised sector consisting of the spinning and composite mills and the decentralised sector consisting of the power-loom weaving sector and the handloom weaving sector, supplemented by the private processing houses. The Composite sector by itself is a major contributor to the economy of the country providing 16.5% of the industrial output of the country and the employment to 12.5 lakh persons.

6.4.3.31. While the textile industry is an important industry for the country, for the State of Gujarat it is a core industry, providing nearly 25% of the industrial production in the State, 32% of the employment for the organised sector and 33% of the value added in industrial output as per 1978 figures. With the subsequent diversification of the industrial product mix in the State, the ratio in regard to textile industry might have gone down slightly, but still it continues to be the major industry providing base for trade and industrial development in the State.

Gujarat State Textile Corporation.

6.4.3.32. The GSTC was formed by the State Government in the year 1968-69, as an instrument to take over and run the sick textile mills which were closed. The Corporation was reactivated in 1977 by handing over two mills viz. Priyalaxmi Mills, Baroda and Shree Shubhalaxmi Mills, Cambay. The Corporation was

also asked to take over two additional mills, New Jahangir Vakil Mills, Bhavnagar and Kanti Cotton Mills, Surendranagar in late 1982. The Corporation has also started the fifth mill viz. Sahayog Textiles, Ahmedabad during 1984. Over and above, the Corporation had an idea of starting the projects related to the textile line. Accordingly, one joint sector project, viz. Gujarat Spinners Limited has already been completed and the same has started the production in late 1983.

6.4.3.33. During the period from 1980-81 to 1983-84 the State Government has sanctioned loan to the extent of Rs. 370.58 lakhs to GSTC and Rs. 200 lakhs was provided in the year 1984-85.

6.4.3.34. The Corporation at present is running the following 5 sick textile Mills :

1. Priyalaxmi Mills, Baroda.
2. Shree Shubhlaxmi Mills, Cambay.
3. Kanti Cotton Mills, Surendranagar.
4. New Jehangir Vakil Mills, Bhavnagar.
5. Sahayog Textiles, Ahmedabad.

6.4.3.35. Looking to the condition of the machineries at the above Mills as well as the availability of funds, it is proposed to undertake modernisation programme during the Seventh Plan for which an outlay of Rs. 500 lakhs has been provided in the Plan.

Gujarat Industrial Investment Corporation Limited Activities of the Corporation

6.4.3.36. GIIC Limited established under the Companies Act, 1956 on 12th August, 1968, is a wholly owned Government Company.

6.4.3.37. The main role of the Corporation is to provide financial assistance to large and medium industrial units and to act as a catalyst of industrial investments in the State of Gujarat. This objective of the Corporation is achieved through various financing schemes framed by the Corporation as well as through the promotion of projects from time to time.

Market Borrowing

6.4.3.38. Under the scheme, the Corporation provides financial assistance to the units whose requirements exceed Rs. 30.00 lakhs. The loans are usually for a period of 10 years with a moratorium period of 2 years. The Corporation also provides concessional financial assistance in notified backward districts and the low margin is kept in such districts.

6.4.3.39. The Corporation provides financial assistance mainly to the units where refinance is available. However, some of the good units coming for the first time in the State with new technology etc., are not eligible for refinance from IDBI and, therefore the Corporation feels the constraints of funds in financing of these units.

6.4.3.40. Since inception of the Corporation, the total financial assistance sanctioned comes to around Rs. 227.75. crores

6.4.3.41. The business of the Corporation has accelerated its pace in last few years as the sanctions have been going up from Rs. 2709.41 lakhs in the financial year 1980-81 to Rs. 3549.81 lakhs in 1983-84.

6.4.3.42. Considering this, it is expected that the total sanctions in the Seventh Five Year Plan period would be of the order of Rs. 25,100 lakhs and disbursements would be in the order of Rs. 16,400 lakhs.

6.4.3.43. The total market borrowing as estimated by the GIIC for the Seventh Five Year Plan is to the extent of Rs. 2050.00 lakhs. However, GIIC will be allowed to raise market borrowing to the extent of Rs. 500 lakhs in Seventh Plan. The Corporation has to redeem the bonds already floated to the extent of Rs. 660.00 lakhs.

Loan to GIIC for Projects

6.4.3.44. The GIIC endeavours to identify investment opportunities and implement various projects to fulfil the objective of industrial development. Development of Projects is a continuous process. Efforts made at a point of time may result into effective implementation later.

6.4.3.45. Before the commencement of Sixth Five Year Plan *i. e.* upto March, 1980, five projects were in production. These projects were for the manufacture of Caustic Soda/Chlorine, Carbon Black, Methyl Methacrylate, Machine Tools and Cresols. The project for processing of leather was under active implementation.

6.4.3.46. 5 more projects came into production. Leather Processing unit at Ankleshwar came into production in October, 1980; Psyllium Husk Processing plant at Mehsana started its production in May, 1983, Automobile clutch manufacturing units started its production at Halol in January, 1984, Polybutenes project started its production in February 1984 and Ceramic Capacitors came into production at Umbergaon in March, 1984.

6.4.3.47. Erythromycin, White Cement, Process Control Instruments, Polypropylene Multi Filament Yarn and Transreceivers are at advanced stages of implementation and would go into production before, March, 1985.

6.4.3.48. There were 13 companies before the beginning of Sixth Plan period. During the Sixth Plan period 34 more companies have been incorporated for projects such as Transreceivers, Erythromycin, Ceramic Capacitors, Ampicillin, Phenol, Automobile Cluth, Process Control Instruments, Engineering Thermoplastics, Polybutenes, Hotel (Baroda), Salicylic Acid and Aspirin, Wedge Wire Screens, White Cement (Bhavnagar) Soda Ash and Polypropylene Multi Filament Yarn. Before March 1985, 5 more companies are likely to be incorporated for projects such as Industrial Turbines, BOPP, Frozen Vegetables, H. T. Fasteners and Lube Oil. Implementation in these projects have started. During the Sixth Plan, implementation of projects such as Cement (Veraval), Soda Ash, Nylon-6 Yarn Ampicillin, Hotel (Baroda) Wedge Wire Screens and H. T. Fastners has started and it would start in Cement (Bhavnagar) and Lube oil Projects soon.

6.4.3.49. During the Sixth Plan period, the Corporation obtained 29 new letters of intent and 2 DGTD Registrations.

6.4.3.50. During the Sixth Five Year Plan period, considerable progress was made in various projects in terms of collaboration, company formation, selection of site, term loan clearance and the like which are required to be completed before the implementation Starts. As a result of the efforts made during this period, number of projects implementation has already started and the remaining projects would be implemented in the Seventh Plan period. The major projects which are under implementation and would be commissioned in the Seventh Plan period are Soda Ash, Cement (Veraval), Nylon-6 Filament Yarn, Hotel (Baroda) and Hotel (Ahmedabad) whereas in other important projects such as Caustic Soda, LECA,

Aluminium Foils, Ball and Roller Bearings, Copper and copper Based Alloy Strips and Sponge Iron, implementation would commence in the Seventh Plan and the Projects will be commissioned during that period. Besides these projects, there are, many other projects in which the Corporation has made considerable progress.

6.4.3.51. It would be worthwhile to note that the total investment made by the Corporation in raising the equity for various projects upto March 1984 is Rs. 2332 lakhs and is expected to be around Rs. 3800 lakhs by March, 1985. During Seventh Five Year Plan, the Corporation's requirement of funds from State Government is estimated at around Rs. 6000 lakhs. This investment would catalyse capital investment of Rs. 882 crores. Against the total requirement of Rs. 6000 lakhs it is proposed to provide Rs. 3500 lakhs in the Seventh plan for GIIC's various projects.

Loan to Gujarat Industrial Investment Corporation Large Engineering and Electronic Projects (LEEP)

6.4.3.52. In order to attract large engineering and electronic projects in Gujarat, State Government have introduced with effect from 1st November 1982, a special scheme of incentives for developing electronics and engineering units in the backward areas. The large scale engineering units with a minimum fixed capital investment of Rs. 7.5 crores and employing atleast 1000 persons directly and located in some of the eligible locations are considered for interest free loan assistance from the State Government Similarly electronic projects with a minimum fixed capital investment of Rs. 3.00 crores and manufacturing electronic components and professional electronic equipments and also employing atleast 1000 persons directly and located in an eligible locations are also considered. The loans admissible under the scheme range from 10% to 20% of the fixed capital investment. The loan is repayable in six annual instalments with moratorium of nine years. The scheme is implemented through Gujarat Industrial Investment Corporation. Large automobile unit the Hindustan Motors Ltd., is expected to set up a commercial vehicles project in the backward area of Panchmahals.

6.4.3.53. It is expected that other big industrial houses will set up the projects in Gujarat in coming years. It is, therefore, proposed to continue this scheme in the Seventh Plan with a provision of Rs. 300 lakhs.

Index Grant for promotional activities

6.4.3.54. Industries promotional activities are carried on by Industrial Extension Bureau (INDEX) on behalf of the State Government. Various industries development panels have been constituted in order to encourage other growth of industries in the State. These panels serve as useful forum for discussion on various issues related to the industries concerned and make concrete suggestions for the development of Industries in the State.

6.4.3.55. A technical wing known as Mini-DGTD Cell, has been created with the Industrial Extension Bureau which acts as Secretariat to these development panels. The other activities of the wing include preparing industrial status reports, potential study reports preparing project profiles, guiding entrepreneurs in respect of the concerned field of industry for technical matters pertaining to industrial projects and, thus, working for promotion of industries.

6.4.3.56. This scheme is to continue in the Seventh plan for which a provision of Rs. 100 lakhs has been made.

Monitoring Cell for Implementation of letter of Intent.

6.4.3.57. It has been stressed by the Industry Ministry, Government of India, that letter of intent should be converted into industrial licences within the prescribed

period and, thereafter, the industrial licences should be implemented within the time limits laid down. It has further suggested that the progress of letters of intent and industrial licences should be closely monitored by the Central as well as the State Governments.

6.4.3.58. It is therefore proposed to set up a Monitoring Cell in INDEX with main objective of reviewing the progress of implementation of LI and IL. The setting up of such a system will be of advantage to know the bottlenecks in implementing letters of Intent/Industrial Licences and then working at policy guidelines. Further it will be of advantage to know the investments that are to be generated in the State, investment opportunities, proposed flow of applications to the financial institutions, etc.

6.4.3.59. It is proposed to provide an outlay of Rs. 25 lakhs in the Seventh Five Year Plan.

Grant of loan to industries for amount of sales tax paid on sale of finished products

6.4.3.60. This scheme was introduced in December 1977 and is implemented through GSFC and GIIC. Under the scheme, eligible industrial units which commenced commercial production during the operative period of the scheme are entitled to the benefits of loan equal to the amount of sales-tax paid on sale of their finished products during the period of five years from the date of commercial production.

6.4.3.61. Under this scheme the total loan sanctioned in the first four years of Sixth plan is to the extent of Rs. 325 lakhs.

6.4.3.62. The validity of the scheme expired on 31st October, 1982. However, the claims for loans against sales-tax paid during the period of five years from the date of commercial production are required to be entertained. A provision of Rs. 400 lakhs is accordingly made in the Seventh Plan.

Grant of loan to industries in lieu of Sales-Tax Deferment scheme

6.4.3.63. Government has introduced a new Sales-tax incentive scheme effective from 1st June, 1980. Sales-tax incentives are available to small, medium and large scale units under two different schemes (1) Sales tax Exemption and (2) Sales Tax Deferment.

6.4.3.64. Under the sales-tax deferment scheme, a unit is allowed to collect the sales-tax on sales of finished goods. The payment of the sales tax amount so collected will be deferred for 12 years.

6.4.3.65. Till 31st October, 1983, 447 units have opted for sales tax deferment scheme and received benefit for the sales tax amount of Rs. 2.137 lakhs.

6.4.3.66. Several industries associations have, however, represented that the new industries do not get the full benefit of the sales tax deferment scheme on account of introduction of new section 43-B in the Income tax Act, which provides that the deduction of any sum payable by the assessed by way of tax under law shall be allowed only in the year in which such sum is actually paid by him. The tax collected and deferred by the new industries will be treated as income and will not be allowed as expense and so the industries will have to pay about 55% of the amount of tax so deferred and the advantages available to new industries will be lost.

6.4.3.67. In view of the above, it is proposed to revive the earlier scheme of grant of loan to the industries for amount of sales tax paid on sales of finished products.

A provision of Rs. 500 lakhs is proposed in the Seventh Five Year Plan for this scheme.

Infrastructure loan in lieu of Sales-tax deferment benefit.

6.4.3.68. Government introduced incentive schemes of capital investment subsidy and sales tax deferment benefit to the "Pioneer" units, in the year 1980. The extent of sales tax deferment benefit was subsequently increased to 90 percent of the fixed assets to certain categories of pioneer unit.

6.4.3.69. In order to enable every large industrial projects to meet the expenditure on infrastructure such as railway siding, power line, etc., Government has announced a scheme in August, 1983 whereunder, units with the fixed capital investment over of Rs. 25 crores are eligible for sales-tax deferment under the pioneer scheme to the extent of 90 percent of fixed assets are given interest free sales tax loan, not exceeding Rs. 100 lakhs per unit in lieu of part of sales-tax deferment benefit on certain conditions. The amount of loan is limited to 40 percent of the expected benefit from sales-tax deferment. This loan will be sanctioned and disbursed by Gujarat Industrial Investment Corporation Limited.

6.4.3.70. It is expected that good number of medium and large units would avail of benefits under this scheme. In view of the above an outlay of Rs. 300 lakhs has been provided for the Seventh Plan.

6.4.4. VILLAGE AND SMALL INDUSTRIES

(a) Small Industries

6.4.4.1. For Small Industries an outlay of Rs. 9361 lakhs for the Seventh Plan has been provided. The broad break-up of which is as under :—

(Rs. in lakhs)

Programme	Outlay for Seventh plan
Share Capital contribution loan to GSFC.	1000
GIDC Market Borrowing	750
Margin Money.	2500
Grant-in-aid to CED for Industrial Self employment in Rural and Backward areas	200
Subvention to GSIC	25
Capital Investment subsidy for new industries in backward areas.	4000
District Industries Centres Including.	500
Rural Industries Project/Rural Artisans Project	45
Apprentice Training in Government Printing Presses.	50
Package assistance to SSI units.	100
Margin money assistance for Self-employment	70
Margin money loan for working Capital to Sick units under sick units revival programme.	121
Total	9361

Share Capital Contribution/loan to GSFC.

6.4.4.2. Gujarat State Financial Corporation was set up in the year 1960 under the State Financial Corporation Act 1951 to provide term loan assistance to small and medium enterprises to accelerate the process of industrialisation in the State. The Corporation grants term loan assistance upto Rs. 60 lakhs to limited companies and Co-operatives. For proprietary and partnership concerns the extent of assistance is restricted to Rs. 35 lakhs. While providing the vital input i. e. term finance, the GSFC aims at diversified and balanced regional growth at the macro and micro level. To enable the entrepreneurs amongst the weaker sections of the society like artisans, SC/ST communities, fishermen, truck operators etc., the Corporation had implemented custom made schemes to meet their term finance requirements:

Progress since inception

6.4.4.3. During the period of first two decades of its operation i. e. 1960-61 to 1979-80, the Corporation has been instrumental in promotion and growth of various types of 14903 enterprises by sanctioning them the loans of Rs. 219.80 crores and disbursing loans of Rs. 131.60 crores. The assistance sanctioned by the Corporation to important sectors during this period is shown below :

Term finance sanctioned by GSFC during 1960--61 to 1979--80.

(Rs. in crores)

Sectors	No. of units	Amount sanctioned
1	2	3
Aggregate Finance	<i>14993</i>	<i>225.17</i>
(a) Term loan	14903	219.80
(b) Under writing	41	2.07
(c) Deferred payment Guarantee	49	3.36
SSI units	14371	149.80
Backward Districts	4936	79.49
Rural Areas	1732	32.51
56 Backward Talukas	511	10.44

Progress during Sixth Plan (1980-81 to 1984-85)

6.4.4.4. The Corporation promoted industrial development in small scale sector, backward and rural areas of the State during the Sixth Plan period. During the Sixth plan period Corporation had sanctioned loans of Rs. 292.51 crores to 9582 units in the State against the target of Rs. 230 crores. Disbursal of assistance during the Sixth Plan period amounted to Rs. 182.23 crores.

against the target of Rs. 167 crores catalysing investment of Rs. 668 crores in the State generating employment opportunities of 1.33 lakhs. The yearwise progress achieved by the Corporation during the Sixth Plan period is shown below:

Yearwise progress achieved during Sixth Plan period.

Year	No. of units	Amount sanctioned (Rs. in lakhs)	Amount disbursed
1980—81	1405	45.35	27.51
1981—82	1614	59.10	33.05
1982—83	2641	64.53	42.10
1983—84	2186	58.12	38.32
1984—85	1736	65.41	41.25 (Anticipeted)
Total	9582	292.51	182.23

6.4.4.5. As against the target of sanctions of Rs. 127 crores in backward areas, the Corporation is likely to achieve sanction of Rs. 140.39 crores. Loan of Rs. 135 crores to 4116 units.

Objectives for the Seventh Plan

- To provide new thrust for development of the small scale sector.
- Encourage balanced regional growth by stepping up the assistance in backward districts and backward talukas of the State.
- To pursue the programme of Door Step Service programme more vigorously for promoting industrial development in rural and semi urban areas.
- Promote modernisation and diversification amongst existing industries so as to maintain healthy growth and sustenance of the industrial sector in the State.
- To provide rehabilitation assistance to sick and work out economically viable industrial units for promoting optimum utilisation of the manufacturing capacity already created which may be lying idle.

6.4.4.6. The Corporation proposes to sanction term finance amounting to Rs. 188.55 crores in the backward areas of the State. The SSI sector is likely to receive term finance amounting to Rs. 301.68 crores during the Seventh Plan period from the Corporation.

(Plan Crores)

Parameters	Sixth Plan Targets	Sixth Plan likely achievements	Target for the Seventh Plan
Sanction of loan	230.00	297.10	377.10
(a) Loans to backward areas	127.00	140.39	188.55
(b) Loans to SSI units	161.02	242.53	301.08
Loans disbursed	167.00	190.98	261.06

6.4.4.7. With a view to achieve the above targets by G. S. F. C. an outlay of Rs. 1000 lakhs has been provided for the Seventh Plan.

Gujarat Industrial Development Corporation

6.4.4.8. Gujarat Industrial Development Corporation was established in the year 1962 with the objective of providing industrial infrastructure to achieve rapid, orderly and balanced industrial growth in the State. By the end of March, 1984 GIDC has established 156 industrial estates, acquired about 10,000 hect. of land and has constructed nearly 8300 industrial sheds and equal number of housing-quarters. Nearly 7500 units are reported functioning in various GIDC estates, producing goods worth Rs. 1600 crores, by employing 1.25 lakh people with an investment of Rs. 650 crores. During the Sixth Plan the State Government has sanctioned the margin money amounting Rs. 2974.84 lakhs to GIDC and also allowed GIDC to raise market borrowing to the extent of Rs. 1142 lakhs.

6.4.4.9. As generation of employment opportunities and dispersal of industrial activities are the two main objectives of the Seventh Five Year Plan, GIDC would like to strengthen the industrial estates existing at present and would give priority to the establishment of new estates at potential locations, particularly which have "No industry" or "No estate" status at present. As Gujarat is the paradise for small scale industries, suitable infrastructural support, adequate, timely and properly priced inputs are the pre requisites for its successful survival. Secondly when the policy thrust is to locate new industrial estates in less industrialised towns and backward areas, with a view to attracting entrepreneurs to these areas, adequate and appropriate infrastructural support is the only point of attraction. Keeping this in view, GIDC has planned for development of existing industrial estates in terms of social, physical and economic infrastructural facilities.

6.4.4.10. With the implementation of Narmada Irrigation Project and new areas to be brought under cultivation, would lead to vast potentialities of chemical industries based on renewable feedstock derived from the agriculture. This is besides the development of basic chemicals and petrochemicals, dyestuff intermediates and drugs intermediates. In terms of infrastructural facilities, this perspective growth of chemical industries calls for the planning of disposal effluents and adequate water supply. This can be achieved through industrial estates exclusively made for chemical industries. Accordingly, development of two estates viz., Sarigam and Panoli are to be taken up in the Seventh Plan period. The estates of Naroda, Odhav and Vatwa, which are around Ahmedabad are to be provided with the facility of disposal and treatment of the effluents.

6.4.4.11. Physical Targets for the Seventh Plan

Items	Seventh Plan Target
Number of areas to be set up	36
Land acquisition (in hectares)	4632
Areas to be developed (in Hect.)	4080
Sheds to be constructed (New plus spillover) No.	5173
Housing quarters to be constructed (No.)	12466

6.4.4.12. Keeping in view the total capital requirement of Rs. 38000 lakhs by GIDC during Seventh Plan period the total state support of Rs. 3250 lakhs including Rs. 750 lakhs market borrowing has been provided in Seventh Plan.

Grant-in-aid to CED for self employment in Rural and Backward areas

6.4.4.13. The Centre for Entrepreneurship Development sponsored by Government of Gujarat and GIIC, GSFC, GSIC, GIDC is a pioneer organisation amongst entrepreneurship and industrial development agencies of the nation. Having an unique type of activity, this organisation has initiated its activities in April, 1970 on the firm belief that "The Entrepreneurs are not born but can be developed". The main objectives of CED are as below.

- To search, encourage, identify and select potential entrepreneurs and develop them for setting up tiny, rural, small or medium scale and other, industrial commercial or servicing ventures.
- To provide training and instructions in all aspects of setting up and running a venture to potential and existing entrepreneurs.
- To conduct various training programmes for entrepreneurs.

Progress review from 1970 to 1984-85

6.4.4.14. Since 1970, the CED has been undertaking skill formation cum entrepreneurship development programmes by imparting training in various trades under various plan programmes. The cumulative progress achieved by CED from 1970-71 to 1984.85 has been tabulated below.

Progress upto May, 1984.

Duration	No. of Training Pro-grammes Conducted	No. of trainees trained	Project report prepared	Loan applications submitted	Unit started		Units expected to start
					With loan	With own funds	
1970-71 to 1978-79	84	2134	1517	799	387	441	372
1979-80 to 1980-81	87	2164	1756	978	707	419	104
1981-82 to 1982-83	38	950	773	479	282	190	107
1983-84 to 1984-85	64	1455	300	..	..	..	279

6.4.4.15. Proposed Programmes for the Seventh Plan of CED with financial requirement and proposed target are as below :—

General Entrepreneurship Development Scheme

6.4.4.16. Under general EDP Scheme CED has extended its activities to 'O' industries village centres and 5000 population rural industrial centres.

6.4.4.17. Under General EDP the women entrepreneurship development programme will be run in the urban centres such as Ahmedabad, Vadodara, Surat, - Bhavnagar, Rajkot and Mahesana. The proposed programme is as under :—

Sl. No.	Scheme	Training Programme	Trainees
1	General EDP (Rural and backward areas)	170	3400
2	General EDP Women entrepreneurs	30	700
3	General EDP (RIDC skilled formation cum entrepreneurship development)	40	400
4	Tribal areas	50	1000
5	Sp. Comp. Plan.	100	1500
	Total	390	7000

Capital Investment Subsidy for new industries in backward areas

6.4.4.18. Phenomenal industrial Progress has been made in Gujarat in the last decade due to various promotional measures taken by the State Government. State cash subsidy for industrial units set up in backward areas and growth centres has played a very prominent role for achieving rapid and balanced industrialisation.

6.4.4.19. Capital investment subsidy scheme for industries which was declared in November, 1977 completed its period of five years in November 1982. Subsidy under this previous scheme was available in ten backward districts, 120 growth centres and GIDC areas outside the banned areas. Those units which had taken specific effective steps till October 1982 are also made entitled for the subsidy provided they complete their projects before October, 1983. The subsidy disbursed yearwise with the number of units during the Sixth Five Year Plan are tabulated below :—

(Rs. in lakhs)

Year	Amount Disbursed	No. of units
Sixth Five Year Plan		
outlay	2,500.00	..
1980-81	703.07	1802
1981-82	847.45	2090
1982-83	1,126.33	2040
1983-84	1,537.96	1856
1984-85	812.90	704
Total Sixth Plan	5,027.71	8492

6.4.4.20. The State Government declared in August 1983 a new scheme for capital investment subsidy for new industries in backward areas. This scheme came into effect from 1st November, 1982 and will remain in force for the period of 5 years upto 31st October, 1987. The eligible areas for this scheme are 10 backward districts and 20 talukas declared by Hathi Committee and certain specified GIDC estates. The subsidy is available at different specified rates based on location of concerned units. The main objectives of the scheme are.

--Development of backward areas and dispersal of industries away from big cities

--Industrial Development and generation of employment opportunities in rural and backward areas.

6.4.4.21. In view of the production of the new scheme of subsidy as also other incentives offers by the Government, the industrial development is likely to get a favourable boost. It is proposed to make a provision of Rs. 4,000 lakhs for the Seventh Five Year Plan.

District Industries Centres

6.4.4.22. This is a centrally sponsored scheme on sharing basis limited to Rs. 8 lakhs per DIC. According to the new Industrial Policy of the Central Government, 17 District Industries Centres have started working in Gujarat State. One more DIC at Gandhinagar has been sanctioned recently. They are busy in intensive drive to industrialise the rural and backward areas of the State. As per the instruction of the Central Government targets for 4 years were fixed. Recently, Action Plan for the year 1983— 88 has been prepared as per the instructions of Central Government. A Committee under the Chairmanship of the Collector has been appointed to advise and supervise the working of the District Industries Centre.

6.4.4.23. The Schemes implemented through the DIC are Central Cash Subsidy on Capital Investment, Power Subsidy, Interest Subsidy, Testing Subsidy, Sales Tax Loans and Capital Investment subsidy for new industries in backward areas, Bankable scheme for Cottage Industries, the tribal Sub-Plan and Special Component Plan etc. The scheme for providing self-employment to educated un-employed youths is also being implemented by DICs.

6.4.4.24. A Monitoring Cell has been established at State Level to co-ordinate and supervise the progress of the District Industries Centres and to help in smooth implementation of the progress. It is proposed to continue the centres in the Seventh Plan with a provision of Rs. 500 lakhs in State Plan.

Rural Industries Programme and Rural Artisans Programme (R. I. P. / R. A. P.)

6.4.4.25. The Government of India have directed to implement the Rural Industries Programme (R. I. P. Scheme) and Rural Artisans Programme (R. A. P. Scheme) from 1978 through the District Industries Centres in the entire State except the towns and Villages having population of more than 25,000, with ratio of expenditure to be met with 50:50 by Central Government and State Government limited to Rs. 0.50 lakhs per D. I. C. This scheme is mainly for the younger generation especially the rural artisans who are un-employed and waiting for employment from long time.

6.4.4.26. In the Sixth Plan period around 12935 persons are covered under this programme. This centrally sponsored scheme is proposed to be continued in the Seventh Plan and as per the pattern of Central Government. An outlay of Rs. 45 lakhs has been provided in the State Plan for the Seventh Plan 1985. The equal amount of Rs. 45 lakhs will be available as Central share. The target is to cover about 38350 beneficiaries during the Seventh Plan period.

Package Assistance to Small Industries

6.4.4.27. Subsidy on Power Consumption (2) Subsidy for Testing Products of SSI and (3) quality marking on products of cottage and small scale industries, are merged into scheme *Viz.*, "Package assistance to SSI units."

6.4.4.28. During the Sixth Plan the subsidy amounting Rs. 143.05 lakhs has been sanctioned to about 9000 units. This scheme is proposed to be continued in the Seventh Plan for which a provision of Rs. 100 lakhs has been provided in the Seventh Plan.

6.4.5. Village and Cottage Industries

6.4.5.1. Village and Cottage Industries play an important role in providing larger employment opportunities in rural areas and particularly to the weaker section and backward people *viz.*, scheduled caste and tribal people with special emphasis on utilisation of local resources and skills and ultimately improve the living standard of poor and downtrodden people of the state. The development of village and Cottage industries therefore has been accorded high priority in the Seventh Plan.

6.4.5.2. The outlay of Rs. 5000 lakhs has been provided in the Seventh Plan 1985-90 and village and cottage industries, programme. The programmewise break-up is as under :

(Rs. in lakhs)

Programme	Outlay proposed for Seventh Plan
1 Administration and Supervision	75.00
2 Handloom Industries	815.00
3 Handicraft Industries	300.00
4 Co-operative Industries	550.00
5 Khadi Industries	1000.00
6 Other Programmes	2260.00
	<hr/> 5000.00

Administration and Supervision

6.4.5.3. The Directorate of Cottage Industries has been formed as Head of Department in 1973. Gujarat has provided a separate agency for looking after different activities such as Khadi and village Industries, Handloom and Handicraft, Training and financial assistance to artisans and technical and marketing guidance to the artisans. Director of Cottage Industries is also *ex-officio* Additional Registrar for Co-operatives and he is looking after all the industrial Co-operatives in the State. The Director of Cottage Industries needs technically qualified persons whose services could be utilised for solving various problems and proper implementation of the programmes of handlooms and handicrafts, leather, ceramics and coir, Industrial finance, marketing and co-operatives etc.

6.4.5.4. This scheme has been proposed to continue in the Seventh Plan. For conducting the various examination under the training programme, an Examination Cell is proposed to be created. Similarly, a "Monitoring Cell" is also proposed to be created for monitoring the programmes of the schemes included in the Seventh Plan.

6.4.5.5. For smooth, speedy and timely action and supervision over all the training centres under the 20 point programme and for helping to solve varied day to day problems it is necessary to strengthen the Directorate for which, an outlay of Rs. 75.00 lakhs has been provided for the Seventh Plan.

Handloom Industries :

6.4.5.6. Handloom weaving is the main activity of village artisans and its employment potential is next to agriculture in the rural area. A majority of the weavers engaged in this trade belong to the Scheduled Castes. Development of Handloom Industries in Gujarat especially in the context of the 20 Points Programme assumes significant importance.

6.4.5.7. In Gujarat formerly there were about 36,000 Handlooms. But there was a decline due to the rapid growth of Textile Industry in private sector. As per the survey under taken in 1977 in Gujarat, there are 23,741 Handlooms in the State. Out of these looms, 9450 looms have been covered under Co-op. Sector, 4474 looms have been covered under the scheme of intensive Handloom Development Project and 7508 looms are covered by Khadi and Village Board.

6.4.5.8. The Development of Handloom industry is encouraged through Co-operative societies of weavers and through Gujarat State Handloom Corporation. There are 240 weaver societies covering 9450 Handlooms owned by 27,600 weavers as on 31st March, 1984.

6.4.5.9. The financial assistance to Handloom Industrial Co-operative Societies is given under new revised package scheme. With a view to develop Handloom Industrial Societies, the existing scheme is proposed to be continued in the Seventh Five Year Plan for which a provision of Rs. 470 lakhs has been made provided for all the activities of Handloom Industries.

6.4.5.10. It is proposed to cover 916 societies and 30815 individual weavers generating employment to nearly 70,000 persons. It is also proposed to activate 4000 dormant Handlooms and to cover 1000 new looms under Co-operatives. The production of handloom cloths worth Rs. 49.65 M. Metres is expected to be produced during the plan period.

6.4.5.11. There are special training facilities for weavers to train them in latest skills in weaving and processing of Handloom Cloth and in use of improved looms latest designs. The training facilities both in the basic training as well as advanced training for new fabrics through the Handloom Technology Institute, Gandhinagar, will be continued. Efforts will be made to modernise Handlooms by adding new accessories and replacing outdated parts, and providing assistance for pre-weaving and post weaving process.

Intensive Development Project of Handloom Industries :

6.4.5.12. The Handloom Development Corporation is implementing the Intensive Development Project scheme from 1976-77 and has covered 4474 looms upto 1984. The object of this scheme is to supply looms, tools and equipments, working capital and raw materials and to take back the finished goods to ensure better return to the weavers who are not covered under the Co-operative Sector. Formerly this-

scheme was implemented in Ahmedabad, Surendranagar and Banaskantha District. The scheme is now extended to other 10 Districts viz., Kachchh, Amreli, Bhavnagar, Rajkot, Sabarkantha, Mehsana, Gandhinagar, Kheda, Bharuch and Valsad. An outlay of Rs. 275.00 lakhs has been provided for the Seventh Plan to cover about 25000 beneficiaries.

Handloom Development Corporation

6.4.5.13. The Gujarat State Handloom Development Corporation was set up on 15th November, 1979 to develop the Handloom sector in the State for better production and giving fair wages to weavers to improve their old looms and modernise etc. and to produce various products of better designs. It was been implementing the Intensive Development Project for the weavers not covered under Co-operative sector. The Corporation provides facilities like raw materials, modernised looms, training for modern techniques and marketing for finished goods to the weavers. It has covered 4474 looms upto March, 1984. At the end of 1984-85, 5704 Handlooms will be covered giving employment to 15222 persons under this project.

6.4.5.14. The Government of India has introduced a scheme to produce Janta Cloth. For this purpose the Corporation receives subsidy from the Government. The Corporation is producing Janta and non-Janta cloth under Intensive Handloom Development Scheme.

6.4.5.15. The Corporation receives share capital, subsidy and looms from Government in order to carry out its operation. To meet its working capital requirements, it has arranged for cash credit facility with nationalised banks. The main problem faced in achieving higher target of sales and production is, weavers being scattered in Villages, the cost of coverage of looms is high. The Corporation is trying to increase its activities, but for increasing the production as well as sales, it will require more finance. For the development of Corporation's activities an outlay of Rs. 70 lakhs is provided for the Seventh Plan.

Handicrafts

6.4.5.16. Gujarat has a rich heritage in arts and crafts in addition to artistic value of the products. Handicrafts have a large market at home and abroad Gujarat's Handicrafts are based on textiles, wool, ceramics, bamboo work, wood carving and such other by-products. The State Design Centre provides valuable service in preservation of traditional skills and innovate them to suit the modern requirements. The following activities have been covered under the programme of the Handicrafts Industries.

- Establishment of Handicrafts Co-operative and their associations.
- Financial assistance to Handicraft artisans and their Co-operatives.
- Celebration of special weeks and exhibitions of best designs.
- Establishment of show-cases at important places.
- Training to artisans in Handicrafts through State Design Centre.
- State Handicraft Development Corporation provides marketing support and export facilities to such artisans.

6.4.5.17. During Sixth Plan an expenditure amounting to Rs. 19.68 lakhs has been incurred benefitting and 27 Societies and 71 beneficiaries.

6.4.5.18. An outlay of Rs. 70 lakhs has been proposed for Seventh Plan 1985-90 with a view to carry out the various activities under the programme.

Handicraft Development Corporation

6.4.5.19. The Gujarat State Handicrafts and Handloom Development Corporation was established in 1973 with primary aims of promotion, revival and development of Handicrafts of Gujarat. One of the main objects of the Corporation is to provide employment to the poor artisans by way of creating market opportunities to their products. The Corporation encourages direct purchases from the artisans residing in rural and urban areas of Gujarat. There is a need to improve the marketing net-work by opening new Emporia at important Centres in the country. It has opened emporia in big cities viz., New Delhi, Bombay, Ahmedabad. The Corporation has decided to open two museums at Gandhinagar and Shamalaji. One museum at Samalaji has already been established. These museums exhibit rare collections of handicrafts.

6.4.5.20. The Corporation sets up production centres, introduces new designs patterns and helps the artisans to project their products through exhibitions.

6.4.5.21. An outlay of Rs. 80.00 lakhs has been provided by way of share-capital for the Seventh Five Year Plan period.

Carpet Weaving

6.4.5.22. Carpet weaving is an old Indian Craft introduced by King Akbar from Persia. After years of stagnation it has emerged as an flourishing Cottage Industry offering employment to an appreciable number of artisans under the 20 Point Programme.

6.4.5.23. Carpet weaving requires the skill formation at a comparatively young age. It was a centrally sponsored scheme during the Fifth Five Year Plan and it is transferred to the State Sector. It has a tremendous potentiality for self employment as well as earning foreign exchange by covering export market for the State. The State Government has introduced the scheme of training-cum-production centre for woollen industry in the State since 1980-81. The object of the scheme is to train large number of persons through various institutions. In each centre 50 trainees are given training for one year.

6.4.5.24. During Sixth Plan, training was provided to 4076 persons. This training provides opportunities to the members of Scheduled Castes, Scheduled Tribes and other Weaker Sections to acquire skill which can lead them to earn better wages. Development of Carpet Industry would also encourage, consumption of local wool and its processing. An outlay of Rs. 150.00 lakhs is provided with a view to train 3000 persons through training-cum-production centres during the Seventh Plan period.

Financial Assistance to Industrial Co-operative Societies

6.4.5.25. The package scheme for financial assistance to Industrial Co-operative Societies of the State was sanctioned in October 1979 in which the weavers Co-operatives, powerloom Co-operatives, and Industrial Co-operatives of Tribal people were not covered and hence new revised package scheme was sanctioned in December, 1980. This scheme provides share capital contribution to societies, Share capital loan to members of societies, management subsidy, loan and interest subsidy for infrastructure requirements and working capital, reserve fund subsidy, grant for demonstration, propaganda, training and celebration of special weeks, rebates on sales of products.

6.4.5.26. During the first four years of the Sixth Plan an expenditure of Rs. 172.09 lakhs incurred. 1554 industrial Co-operative Societies. 58608 beneficiaries have been covered, During the Seventh Plan an outlay of Rs. 350 lakhs is provided which will give benefits to 800 societies and its 40,000 members.

Powerloom

6.4.5.27. There are 30 powerloom societies in the State which have been assisted under the present powerlooms scheme. These societies covered 853 powerlooms producing cloth worth of Rs. 134.78 lakhs and given employment to 1125 persons as on 31st March 1983. Out of 853 powerlooms, 612 powerlooms are active. It is proposed to activate the ideal powerlooms by revitalising existing societies or by transfer of looms to new societies.

6.4.5.28. The Government of India has recently allocated 700 powerlooms in the State. Out of 700 new powerlooms it is proposed to allocate 600 powerlooms to 50 weavers societies of Scheduled Castes and 30 powerlooms to 3 societies of Scheduled Tribes during the year 1984-85. Thus, by the end of the Sixth, 1553 powerlooms will be covered under the Co-operative Sector.

6.4.5.29. An outlay of Rs. 200 lakhs is provided for assisting powerloom Co-operative Societies during the Seventh Plan.

Gujarat State Khadi and Village Industries Board

6.4.5.30. Khadi and Village Industries are employment oriented programmes. With the adoption of improved technology in Khadi and Village Industries, there has been a rise in production of Khadi and Village Industries and simultaneously it has resulted in better quality of products and lessening of manual labour. The main objectives of Gujarat State Khadi Gramodyog Board is to provide training in Khadi and Village Industries, adopt modern technology, undertake survey and publicity/propaganda for production and sale for such products and settle more and more persons under this programme.

6.4.5.31. Deserving institutions or individuals are being guided by the Khadi Board. The Board tries to improve the quality of products and arranges for proper marketing. The Board is being financed by the State Government as well as by the Khadi Gramodyog Commission. The Board also borrows from the scheduled banks and finances its subsidiary institutions. A special rebate is granted on a sale products of Khadi soap of in edible oils, and other village industries products.

6.4.5.32. In Gujarat State, there are 133 institutions, 147 societies and 8054 individuals who are getting benefits of Khadi and Village Industries. For sale of Khadi and Village Industries products there are 250 Khadi Bhandars and 235 Village Industries Sales Depots, in the State.

6.4.5.33. A provision of Rs. 1000 lakhs is made for the Seventh Plan for khadi and Village industries which will provide additional employment to 12,000 artisans during the Seventh Plan Period.

Training to Artisans

6.4.5.34. The Directorate of Cottage Industries at present is running training centres having 192 classes of different trades in 18 districts with intake capacity of 4935. Training course is for one year duration and trainees are paid stipend at rate Rs. 125 per month to Scheduled tribes, Rs. 100 per month to Scheduled castes and SEBC (Baxi Panch) persons and others are paid stipend of Rs. 75 per month. During the Sixth Plan persons were trained in various trades.

6.4.5.35. An outlay of Rs. 600 lakhs to train 8500 trainees is provided for the Seventh Five Year Plan.

Financial Assistance to Individual Artisans

6.4.5.36. Upto 1979, financial assistance to individual artisans in Cottage Industries was made available under the State Aid to Industries Rules 1935 as well as under Block Loan Scheme of Government through Urban Co-operative Banks. A new scheme was introduced to ensure the flow of funds from Banks and other institutions. The object of the scheme is to assist people who have some skill and entrepreneurship to engage into productive activities. The scheme aims in helping people to set up Cottage Industries which would generate employment on large scale and engage the maximum possible number of skilled and unskilled labourers providing the gainful employment. Loans under the scheme will be available to any individual who has hereditary skills or has acquired skills through formal or informal training or has entrepreneurship to undertake activities under Cottage Industry. During Sixth Plan 81808 individual, have been provided loan assistance by banks and State Government have sanction subsidy to the extent of Rs. 603.49 lakhs.

6.4.5.37. A provision of Rs. 700 lakhs is made to assist 7500 artisans in the Seventh Plan.

Gujarat Rural Industries Marketing Corporation

6.4.5.38. Gujarat Rural Industries Marketing Corporation Limited (GRIMCO) was established in 1979 with a view to provide marketing assistance to rural artisans. Presently, rural artisans are engaged primarily in the manufacture of traditional and conventional products. These artisans are completely unorganised and as a result they have to rely on middlemen and traders for marketing their products.

These middlemen and traders exploit rural artisans and as a result they receive very low return compared to the labour and efforts put by them. These artisans being financially weak cannot stand on their own feet independently. Very few receive financial assistance from financial institutions such as nationalised banks, co-operative societies and other financial institutions. GRIMCO has tried to provide marketing support to these artisans through in a limited way.

6.4.5.39. An outlay of Rs. 75.00 lakhs has been provided for the Seventh Five Year Plan with a target to cover 2000 beneficiaries.

Village Flaying Centres and Village Tanneries :

6.4.5.40. The cattle population of the State is about 1.84 crores. There are 3 lakhs leather Workers in the State mainly in flaying (0.50 lakh) tanning (1.00 lakhs) and Cobblers (1.50 lakhs). The strategy to develop this sector envisages provision of training to flayers and tanners to upgrade technique.

6.4.5.41. A scheme of village flaying centres and village tanneries is implemented from the year 1979-80 for chamars of rural areas to train them in flaying and tanning through Charmodyog Co-operative Societies.

6.4.5.42. By the end of Sixth Five Year Plan, there will be 38 tanneries and 104 Flaying Centres in the State. An outlay of Rs. 200.00 lakhs is provided for the Seventh Plan period and it is proposed to establish 25 tanneries at taluka or district level, 50 flaying centres at Village level, 3 common facility centres at regional level and one training centre.

Rural Production Centres §

6.4.5.43. In order to generate employment for rural industrial artisans, a scheme of Rural Production-cum-Sale centre has been sanctioned with effect from 1979. The aim of the scheme is to establish centres in rural areas for production-cum-sale of village products. The Gujarat Rural Industries Marketing Corporation has been entrusted this work to generate additional employment for rural artisans. It has established 23 centres of footwear, garments, tannery, handlorry and bamboo works.

6.4.5.44. An outlay of Rs. 100.00 lakhs has been provided for the Seventh Plan period, with a target to benefit 4,000 individuals.

Rural Technology Institute

6.4.5.45. Rural Technology Institute has been established in 1979, with the basic objective of utilisation of science and technology in the service of rural people at large and rural artisans in particular. It provides information about appropriate technology to rural areas by way of publication of syllabuses, monthly bulletins, organisation of seminars, identification, testing, training and research. It is proposed to accelerate the activities of the Institute in the Seventh Plan period. An outlay of Rs. 75 lakhs for Seventh Plan has been provided to cover 1000 beneficiaries.

Development of Sericulture Industries

6.4.5.46. Karnataka State has established Sericulture Development Corporation. It is a major silk producing State. Other major silk producing States are Tamil Nadu and Assam. There is a vast potential for development of Sericulture in Gujarat. The development of Sericulture includes two different activities namely (1) rearing of Mulberry plants and (2) processing and production of silk from the large stage. Efforts were made by District Panchayat, Surat by cultivating Mulberry at Valod and Mandvi on experimental basis. Steps have also been taken at Dahod in Panchmahals District. Surat District Panchayat is taking keen interest in development of sericulture. The plantation of mulberry cutting has been undertaken in tribal areas. During the year 1983-84, 63 trainees have taken training of mulberry plantation and rearing at Mysore and planted mulberry cuttings in their farms. Surat District Panchayat has proposed to cover 1000 acres of land under plantation for development of land under plantation for development of Sericulture. The scheme will be implemented through District Panchayats and/or co-operative societies.

6.4.5.47. An outlay of Rs. 300.00 lakhs is provided for the Seventh Five Year Plan.

6.4.6. Mining and Metallurgical Industries

6.4.6.1. The Mineral Development Sector can be classified into three main divisions namely :—

- (a) Mineral Exploration
- (b) Mineral Exploitation
- (c) Mineral Administration.

Mineral Exploration

6.4.6.2. The State of Gujarat has a total area of 196024 Sq. kms. Geologically the basic complex of the State consists of volcanic rocks except the alluvial plains of North Gujarat and the western border of the Saurashtra peninsula.

6.4.6.3. Gujarat State is bestowed by nature a wide range of economic minerals such as Lignite, Bauxite, Fluorite, Limestone, Graphite, Coal, China Clay, Fire-Clay, Bentonite, Silica Sand, Marble etc. In addition to Directorate of Geology and Mining various Central and State agencies such as G. S. I., O. N. G. C., I.B.M., etc. have been doing the work of exploitation of minerals in close co-ordination.

Mineral Exploitation

6.4.6.4. The minerals, by and large, are wasting assets. Scientific conservation and exploitation of minerals is therefore vital. A number of industries based on industrial minerals such as Lignite, Fluorite China Clay, Limestone, Silica Sand etc. have been set up in the State. This has helped in providing employment to the people of the backward areas. The exploitation of Minerals in Gujarat is being done by various private agencies in addition to the Gujarat Mineral Development Corporation Limited, a public sector Undertaking.

Mineral Administration

6.4.6.5. Government of Gujarat is the custodian of all the minerals found in the State. It is the ultimate responsibility of the Government to keep an eye on the exploitation of the minerals as well as to the conservation and scientific utilisation.

6.4.6.6. The following table summaries the achievement in drilling, mapping and analysis of samples.

Physical achievement for Sixth Plan 1980-85

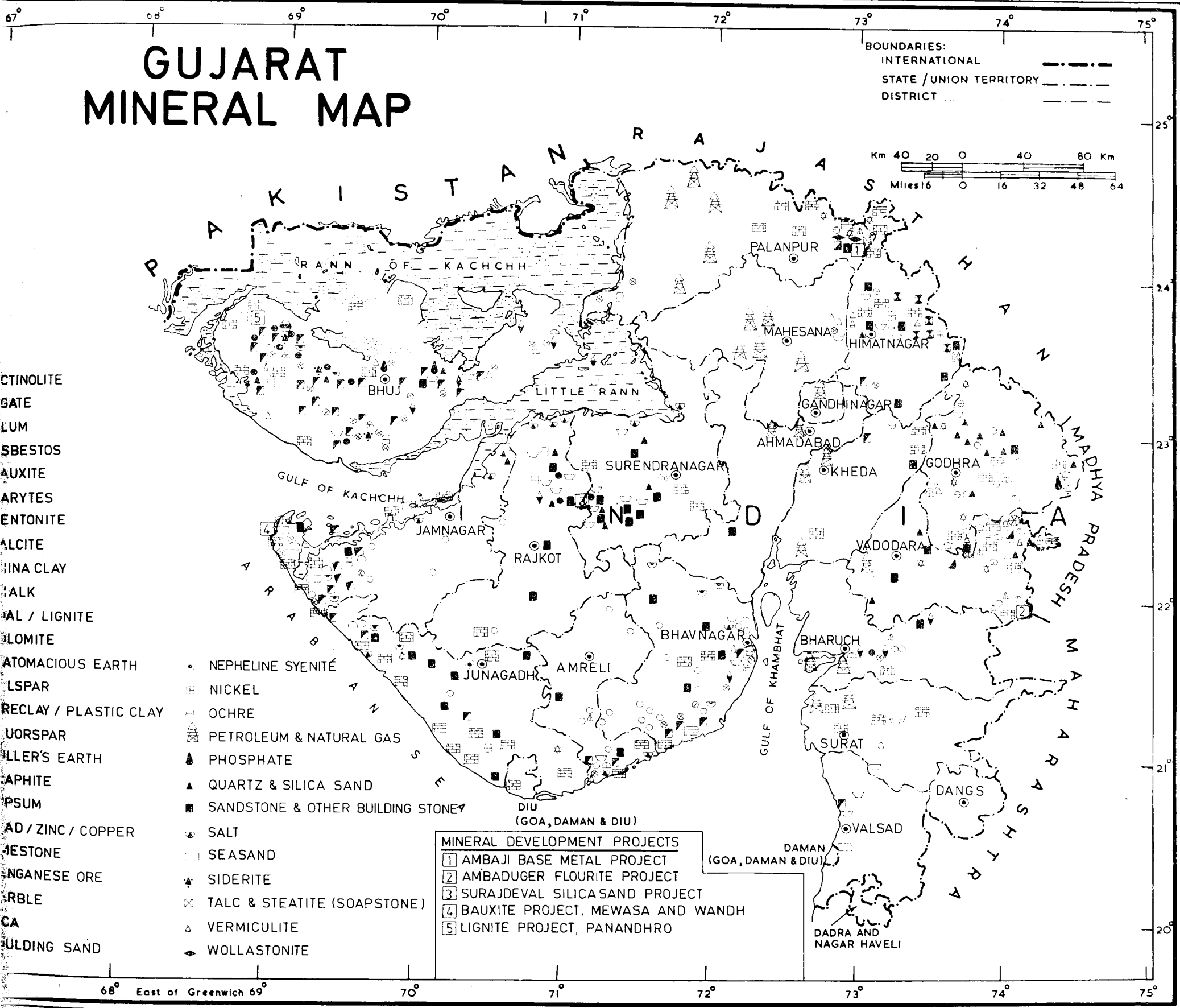
Sr. No.	Item	Units	Level of achievement at the end of 1179-80	Anticipated level of achievements at the end of 1984-85
1	2	3	Achievement	
			4	5
1.	Drilling	Mtrs.	50620	77734
2.	Geological Mapping	Sq. Kms.	26269	32559
3.	Analyses of Samples	Nos.	26855	46110

6.4.6.7. For this sub-sector of development an outlay of Rs. 1867 lakhs has been provided for the Seventh Plan 1985-90 with the following break-up :

(Rs. in lakhs)

Programme	Outlay for Seventh Plan
Re-organisation of Directorate of Geology and Mining	600
Loan/Share Capital to GMDC	1267
Total	1867

GUJARAT MINERAL MAP



REVIEW OF INDIA MAP WITH THE PERMISSION OF THE
 GOVERNMENT OF INDIA
 THE WATERS OF INDIA EXTEND INTO THE SEA TO A DISTANCE OF TWELVE NAUTICAL MILES
 FROM THE APPROPRIATE BASE LINE.
 THE CORRECTNESS OF INTERNAL DETAILS RESTS WITH THE PUBLISHER.

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Mineral Exploration

6.4.6.8. The Directorate has 16 field parties for exploration of minerals in the State. It is proposed to increase the number of survey parties from 16 to 21. The department has ten drilling rigs, 10 trucks, 10 tractors and 44 jeeps for exploration, and administration of minerals. These machineries more than fifteen years old and need replacement. It is proposed to replace these machinery phase-wise in the Seventh Plan.

Mineral laboratory

6.4.6.9. The work of exploration will be incomplete if chemical as well as petrographic analysis of rocks and minerals are not carried out simultaneously. It is not possible to assess the quality of the mineral without analysis. The department has an established laboratory at Head Office, which is sufficient in carrying out the analysis of samples being collected during the course of exploration. But it is essential to keep pace with the technological development. For this purpose latest instruments are required to be purchased. It is proposed to have instruments like surface area apparatus, Emission spectrograph, X-ray fluorescence spectrometer, precision balances etc.

6.4.6.10. The explorations in the State are being carried out by four exploration circles situated at Ahmedabad, Vadodara, Rajkot and Bhuj. In order to get the quick assessment of quality of minerals and their identification, it is essential to establish small units of petrography and mineral chemistry laboratory at Vadodara, Rajkot and Bhuj circle offices. The latest technique such as remote sensing is being applied for mineral exploration. It is also proposed to have a separate wing of remote sensing in the petrography laboratory.

Mineral Administration

6.4.6.11. The mineral administration which includes grant of mining leases, prospecting licences, quarry leases, quarry permits, collection of royalty, maintenance of statistics of production of various minerals, collection of royalty, checking of illegal excavation of minerals and evasion of royalty etc. is being done through district offices. By now, the work of mineral administration has increased considerably. The mining leases and quarry lease which were 729 and 2432 in the year 1979-80 have increased to 1316 and 4381 respectively in the year 1982-83. The workload in mineral administration has increased but the strength of staff has not increased to keep pace with the increase in the work load. It is therefore necessary to increase the staff depending upon the increase of workload in mineral administration.

Buildings

6.4.6.12. Normally, the district offices are accommodated with the office of the District Collectors. The mineral administration is being carried out by district officers under the direct supervision of respective District Collectors. In case of some districts like Sabarkantha, Kachchh, Mahesana, Amreli, etc. the district-officers have been accommodated in hired buildings. The private accommodation is not suitable for office purposes in districts. It is, therefore, suggested to have departmental buildings in each district. During the Seventh Plan it is proposed to have departmental buildings for office and staff quarters at Himatnagar, Bhuj, Mahesana, Amreli and Vadodara districts.

6.4.6.13. With a view to carry out the various activities of the Directorate of Geology and Mining a provision of Rs. 600 lakhs has been provided in the Seventh Plan.

The physical targets for the Seventh Plan are tabulated below :

Item	Unit	Target for Seventh Plan 1985—90
1. Survey and Mapping	Sq. Kms.	8,000
2. Drilling	Metres	20,000
3. Analysis of Samples	Numbers	20,000

Loan to Gujarat Mineral Development Corporation

6.4.6.14. Gujarat Mineral Development Corporation Ltd. was formed on 15th May, 1963 with an authorised capital of Rs. 500 lakhs and subscribed and paid up capital of Rs. 3181 lakhs. The State Government has subscribed the entire capital of Corporation and no shares have been issued to the general public. The Corporation was basically formulated for undertaking the exploration activities on minerals available in Gujarat State and carry out mining/beneficiation of the ore on commercial basis if found techno-economically feasible. Particularly, the Corporation is undertaking the mining and beneficiation of the raw ore which cannot be undertaken by private mine owners.

Review of Progress during the Sixth Plan

6.4.6.15. During the period under review, mining has been carried out in respect of lignite, fluorspar, bauxite and sand-stone and plant process of sandstone and beneficiation process of fluorspar. During the first four years of the plan State Government has sanctioned a loan of Rs. 195 lakhs to GMDC for its projects. During 1984-85 a provision of Rs. 340 lakhs was made for GMDC's Projects. The physical achievements of GMDC from 1980-81 to 1984-85 are tabulated below :

Years	Fluorspar		Bauxite Raw Ore	Lignite	Silica-sand	
	Ore	Finished goods			Raw ore	Finished goods
1	2	3	4	5	6	7
1980—81	84,456	20,662	66,441	3,00,894	6,993	8,777
1981—82	1,20,600	24,972	78,178	4,29,502	6,043	6,813
1982—83	1,21,972	21,401	90,919	5,31,499	7,709	3,144
1983—84	1,10,000	17,000	80,000	6,00,000	5,000	3,500
1984—85	1,24,000	NA	70,000	60,9000,	5,250	NA

Programme for Seventh Plan

Fluorspar Project, Kadipani (District : Vadodara)

6.4.6.16. The Fluorspar Beneficiation Plant has been put up to upgrprde low grade of Fluorspar ore into acid grade fluorspar powder and metallurgical grade

fluorspar powder/briquettes containing CaF₂ content 96% and above and 85% and above respectively. The nature of mineralisation is such that during earlier stages the occurrence and grade of ore was consistent and of better quality but as the mine expanded and got deeper wide variation and decrease in grade has occurred resulting in higher consumption of ore as well as reagents and chemicals for its beneficiation. This is normal phenomenon expected to occur in any mining industry, Highly brasive nature of ore also had its effect on the equipments of the-beneficiation plant causing faster tear and wear. It may be noted that Fluorspar Beneficiation Plant was commissioned in December, 1970 and by now it is more than 12 years old. To correct the situation, steps are being taken for replacing worn out equipments and introducing recent technological developments. This is estimated to cost Rs. 148 lakhs. Such steps will help us to maintain the production level of about 20,000 MT per year to cater to the needs of consuming industries.

Fluorspar Expansion

6.4.6.17. In view of the increasing demand of acid grade and metallurgical grade fluorspar by the consuming industries manufacturing synthetic cryolite, aluminium fluoride, fluoro compounds, refrigeration gases, steel mills etc. it has also been thought simultaneously to increase the production of acid grade and metallurgical grade fluorspar powder by duplicating certain equipments and infrastructure facilities in the present set up with view to obtain an additional production of Rs. 700 lakhs. The detailed project report prepared by the department is being scrutinised and investment decision is likely to be taken shortly.

Glass-sand Project, Surejdeal (District : Surendranagar)

6.4.6.18. As the crushing and screening plant manufacturing silica-sand powder has not been operating profitably due to stiff competition from private mine owners which are many in the field, no further capital expenditure is proposed to be made for this project. However, for replacement of crusing and screening section, a provision of Rs. 7 lakhs has been made.

Silica Sand Washing Project

6.4.6.19. Demand for highgrade silica-sand in the State has increased considerably as the new glass manufacturing units are coming up. At present, for special glasses very high grade silica-sand, which is required, is obtained from long distances such as Allahabad etc. The Corporation is contemplating to put up a Silica-Sand Washing Project so that silica sand mined from Surajdeal mine can be upgraded to the stringent specifications required by the glass-manufacturing units. For this purpose, a provision of Rs. 300 lakhs has been made.

Lignite Project, Panandhro (District : Kachhh)

6.4.6.20. The mining activities at this project have been continuously increasing and accelerated so as to produce more and more of lignite which has been accepted as an alternate fuel to coal by the consuming industries of the State. The production of lignite has touched an all time record of producing 5,31,000 MT during 1982-83 and will reach the targetted figure of 6,00,000 MT in the year 1983-84. The Corporation, with a view to meet with the increase in demand of lignite, has planned to add additional requisite mining machineries to increase the productions. Necessary infrastructural facilities of civil construction will also have to be taken up to provide residential accommodation to the employees. A provision of Rs. 194 lakhs has, therefore, been proposed to be spent on mining equipments, civil construction etc. during the Plan period.

Lignite Project Rajpardi (District : Bharuch)

6.4.6.21. The Corporation has opened another lignite mine near Rajpardi in Bharuch district with a view to cater to the needs of consuming industries of South and Central Gujarat. The production from the mines has commenced from March 1983. It has achieved a production level of 200 MT per day recently which will be raised to 500 MT per day later on. A provision of Rs. 220 lakhs has been proposed to meet with the expenditure to be incurred on certain mining equipments and residential quarters for the employees.

Bauxite Projects (Naredi and Bhatia)

6.4.6.22. Regular low scale mining of bauxite from the fields in Jamnagar-District and Kachchh district is continued to cater to the needs of consuming industries. A provision of Rs. 10 lakhs is proposed for buying air compressor, rock drills etc. for these projects.

(A) New Projects.

Multimetal Project, Ambaji (District Banaskantha)

6.4.6.23. The GMDC efforts to persuade IDBI to consider the loan for putting up at Ambaji to manufacture bulk concentrates of copper, lead and zinc based on the deposits available near Ambaji in Banaskantha District of the State. The Corporation has already spent substantial amount on the development of mines and other infrastructural facilities as well as putting up a pilot plant of 50 MT per day capacity with a view to test the beneficiation flow-sheet evolved by the consultants and bringing further improvements in the same. As a matter of fact, as we have carried out the initial and preliminary activities the project could be considered at the stage of take off. IDBI has recently agreed to reconsider our term loan application and various cost estimates of the project have been reviewed and updated, and submitted the same to IDBI for their reconsideration. We are hopeful amount the clearance of the project by IDBI in a short time. An investment decision is expected to be taken in first quarter of 1984-85 on receipt of commitment from IDBI and therefore, a provision of Rs. 6244 lakhs has been made.

Lignite Project, Panadhro (Expansion-Bucket Wheel Excavator Technology.)

6.4.6.24. Based on the lignite deposits of Panandhro mines, Gujarat Electricity Board has taken a decision to put up two thermal power stations of 70 MW. each. With a view to synchronise commissioning of the expansion programme with that of GEB's thermal power station the Corporation has decided to mechanise the mining of lignite based on the latest international technology available in the field. Global tenders were invited and offers received have been scrutinised. Negotiations were held with the tenderers and investment decision has been taken by the Board. The production from lignite based on the Bucket Wheel Excavator Technology will be 1.5 million tonnes a year out of which consumption of lignite by GEB thermal power stations will be 0.6 million tonnes. Since there has been ever increasing demand of lignite which has been accepted as a fuel/alternate coal, no difficulty is envisaged to sell the entire production of 1.5 million tonnes per year. The expansion of lignite project is estimated to cost over Rs. 9450 lakhs, for which a provision of Rs. 9450 lakhs is proposed in the Plan period.

(B) Proposed Projects

Alumina Project

6.4.6.25. Our consistent efforts of negotiations with Hungarians in respect of the export-oriented alumina project with a capacity of 3,00,000 MT of alumina

per year have brought favourable results. We are hopeful to arrive at meaningful agreement with the Hungarians for putting up this project in Kachchh District. We are aiming at getting back aluminium metal against the export of alumina either the whole quantity or in the alternate sell the aluminium metal directly to other country resulting into saving in foreign exchange or the clearing of foreign exchange, as the case may be. A provision of Rs. 1830 lakhs has been made, for the entire project, out of which Rs. 800 lakhs has been allocated to provide for cost of detailed project report, taking up some of the infrastructural and mine development facilities which is likely to take considerable time. These activities will be taken up during the end of the Plan period and the project will be taken up during the Eighth Plan period.

Bauxite Calcination Project

6.4.6.26. Based on the available high quality bauxite in Kachchh District the Corporation is considering to put up a joint project to manufacture refractory grade calcined bauxite which is a prime raw material for high aluminium refractories which is being used in glass steel, cement, chemical and aluminium industries. The estimated capacity of the Calcination Plant will be 1,00,000 lakh MT per year. The entire production will be exported, from Kandla Free Trade Zone which will earn precious foreign exchange for the country. The estimated capital outlay on this project will be Rs. 2500 lakhs.

6.4.6.27. The Corporation proposed to take up projects based on other minerals like Dolomite, Granite, Bentonite Clay etc., Preliminary investigations and preparation of project report will be taken up when necessary. A provision of Rs. 500 lakhs is made for this purpose.

6.4.6.28. At present the Corporation has provided direct employment to approximately 3500 employees and indirect employment to approximately 10,000 persons employed in ancillary industries like transportation, small scale industries, manufacture of chemicals and reagent, machine spares, vehicle spares etc., Number of small industries are also dependent upon the products manufactured by the Corporation which adds to the creation of employment in the State.

6.4.6.29. Statement showing the estimated cost and expenditure to be incurred for projects during Seventh Five Year Plan

(Rs. in lakhs)

Sr. No.	Projects	Total estimated cost.	Corporation outlay for Seventh Plan.
1	2	3	4
I. Current Projects			
1	Fluorspar Project	500	148
2	Silica Sand	8	7
3	Bauxite	20	10

1	2	3	4
4	Lignite (Kachchh)	700	194
5	Lignite (Rajpardi)	575	220
		<u>1803</u>	<u>579</u>
II. Projects under Implementation			
1	Multimetal Project	7200	6244
2	Lignite (B. E. Technology)	9450	9450
		<u>16650</u>	<u>15694</u>
III. Proposed Projects			
1	Alumina	22500	1830
2	Fluorspar (Expansion)	700	700
3	Bauxite Calcination	2500	2500
4	Washed Silica	300	300
5	Others	515	500
		<u>26515</u>	<u>5830</u>
	Total I + II + III	<u>44968</u>	<u>22103</u>

Sources of Funds :

1	Equity Capital from Government	7798
2	Loan from Financial Institutions/Banks etc.	9527
3	Internal Sources.	2308
4	Supplier's Credit	1670
5	Joint Sector	800
		<u>22103</u>

6.4.6.30. Against the total capital requirement of Rs. 22103 lakhs by GMDC for its projects and State budgetary support of Rs. 7798 lakhs during the Seventh Plan period, a provision of Rs. 1267 lakhs has been made in the Seventh Plan.

STATEMENT

Schemewise Outlay for the Seventh Five Year Plan 1985-90

(Rs. in lakhs)

Sr. No. 1	No. and Name of the Schemes 2	Outlay 3
INDUSTRIES AND MINERALS		
(A) General Industries		
(a) Direction and Administration		
1	IND—1 Compilation of Industrial Data	65.00
2	IND—2 Establishment Asstt. of Salt Cell in Industries Commissioner's Office	25.00
	Sub-Total—(a) 	90.00
(b) Indl. Education Research and Training		
3	IND—3 Research and Development Scheme	500.00
4	IND—4 Hosiery training and Research Centre (CED)	50.00
5	IND—5 Subsidy for Acrylic based Hosiery	15.00
6	IND—6 Industrial Research Lab. Vadodara	200.00
	Sub-Total—(b) 	765.00
(c) Other Expenditure		
7	IND—7 Export Award	5.00
8	IND—8 Pollution Control Scheme	60.00
9	IND—9 Construction of Residential quarters for employees of Government Presses at Baroda and Rajkot and other construction of printing and stationery Building	200.00
10	IND—10 Estt. of new Government Printing Press (New)	800.00
	Sub-Total—(c) 	1065.00
	Total—A—General Industry ..	1920.00
(B) Large and Medium Industry		
(a) Petroleum and Chemicals and Fertilizer Industry		

1	2	3
11	IND-11 Gujarat Petrochemicals Corpn. Ltd.	700.00
	Sub-Total—(a)	700.00
	(b) Ship Building and Aeronotional Industries	
12	IND-12 M/s. Alcock Ashdown Co.	62.00
	Sub-total—(b)	62.00
	(c) Telecommunication and Electronics Ind.	
13	IND-13 Share Capital Contribution to Gujarat Communication and Electronics Limited	750.00
	Sub-Total—(c)	750.00
	(d) Consumer Industries	
14	IND-14 Gujarat State Textile Corpn.	500.00
	Sub-Total—(d)	500.00
	(e) Industrial Financial Institution	
15	IND-15 GIIC (Market Borrowing)	500.00
16	IND-16 GIIC (Project)	3500.00
17	IND-17 Loans to GIIC for interest free loan for Engg. Electrical Projects (LEEP)	300.00
	Sub-Total—(e)	4300.00
	(f) Other Expenditure	
18	IND-18 Index grant for promotional activities	100.00
19	IND-19 Monitoring Cell for information of Letter of Intent	25.00
20	IND-20 Grant of loans to Indus. for the amount of Sales tax paid on Sales of finashed products	400.00
21	IND-21 Grant of loan to Industries in lieu of sales Tax differment	500.00
22	IND-22 Infrastructure loan in lieu of sales tax differment benefit	300.00
	Sub-Total—(f)	1325.00
	Total—(B)	7637.00
	TOTAL—(A + B) LARGE & MEDIUM INDUSTRIES	9557.00

(C) *Village and Small Industries*

(a) **Small Industries**

23	IND-23	Share Capital Contribution Loans to GSFC	1000.00
24	IND-24	GIDC (Market Borrowing .)	750.00
25	IND-25	GIDC Margin Money	2500.00
26	IND-26	Grant in aid to CED for Indl. Self Employment in Backward Areas	200.00
27	IND-27	Subvention to GSIC	25.00
28	IND-28	Capital Investment subsidy for new inds. in backward areas	4000.00
29	IND-29	Distt. Industries Centres	500.00
30	IND-30	Rural Inds. Project/Rural Artisans Proj.	45.00
31	IND-31	Apprentice Training in Government Printing Presses	50.00
32	IND-32	Package assistance to SSI units	100.00
33	IND-33	Margin Money assistance for self employment	70.00
34	IND-34	Margin Money loan for working capital to sick units under sick units revival programme	121.00
		Sub-Total—(a) Small Industries ..	<u>9361.00</u>

(b) *Village and Cottage Industries.*

35	IND—35	Admn. & Supervisory Staff	75.00
		Sub-Total (1)	<u>75.00</u>

(2) *Handloom Industries,*

36	IND—36	Handloom Industries	470.00
37	IND—37	Incentive Development of Handloom Inds.	275.00
38	IND—38	Gujarat Handloom Dev. Corporation	70.00
		Sub-Total (2)	<u>815.00</u>

(3) *Handicraft Industries*

39	IND—39	Handicraft Industry	70.00
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1	2	3
40	IND—40 Gujarat Handicraft Dev. Corporation	80.00
41	IND—41 Carpet Weaving Centre	150.00
	Sub-Total (3)	300.00
	(4) <i>Co-operative Industry</i>	
42	IND—42 Financial Assistance to Industrial Co-operatives	350.00
43	IND—43 Powerloom Co-operatives	200.00
	Sub-Total (4)	550.00
	(5) <i>Khadi Industries.</i>	
44	IND—44 Gujarat State Khadi & Village Ind. Board	1000.00
	Sub-Total (5)	1000.00
	(6) <i>Other Expenditure</i>	
45	IND—45 Training to Industrial Artisans	600.00
46	IND—46 Training to Unskilled artisans for self employment	25.00
47	IND—47 Financial assistance to individual artisans	700.00
48	IND—48 Gujarat Rural Industrial Marketing Corporation for village & Cottage Industries (GRIMCO)	75.00
49	IND—49 Establishment of Village Flying Centres & Tenaries	200.00
50	IND—50 Rural Production Centres	100.00
51	IND—51 Rural Technology Institute	75.00
52	IND—52 Financial assistance to vocationally trained persons for self employment	35.00
53	IND—53 Financial assistance for self employment	125.00
54	IND—54 Sericulture Industries	300.00
55	IND—55 Subsidy to approved women institutes	25.00
	Sub-Total (6)	2260.00
	Total Village & Cottage Industries	5000.00
	Total Village & Small Industries	14361.00

1

2

3

D. Mining and Metallurgical Industries

(a) Mineral Exploration and Development

56	IND—56	Expansion & Reorganisation of Directorate of Geology & Mining	600.00
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(b) Loan for Mining / Metallurgical Inds.

57	IND—57	Loans to Gujarat Mineral Development Corporation	1267.00
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Total (D) Mining & Metallurgical Inds.			1867.00
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GRAND TOTAL A+B+C+D INDUSTRIES AND MINERALS			25785.00
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7. TRANSPORT

1. Transport and communications are a part of infrastructural facilities. The development of activities in this sector also generate large employment opportunities. Each mode of transport has a distinct role to play in the economy and inherent advantage of each needs to be exploited optimally.

2. Transport constitutes one of the most important infrastructural facilities for supporting productive activities and distribution system.

3. Roads play a vital role in dispersing industries in backward areas, providing productive employment and help in forging link between industries and agriculture.

4. Gujarat occupies an important position among the maritime states in the country as it possesses nearly one-third of the total coastline of the country. The minor and intermediate ports in the State handle considerable international traffic by way of imports and exports and thus play a very vital role in developing the economy of the State and the country.

5. The State has also a great potential for development of tourism with a number of ancient and modern attractions of interest to domestic and foreign tourists.

6. An outlay of Rs. 377.40 crores is provided for the Seventh Five Year Plan for the development of programmes under Transport and Communications sector.

(Rs. in crores)

Programme	Outlay provided for
Ports, Light Houses and Shipping	30.36
Roads and Bridges	257.85
Road Transport	84.94
Tourism	4.25
Total ..	377.40

7. An outline of programmes is given in the subsequent paragraphs.

7.1 Ports, Light Houses and Shipping

7.1.1. Introduction

7.1.1.1. Gujarat is a maritime State with about 1/3rd of the total coastline of the country. Out of 10 major and 139 intermediate and minor ports in the country, 1 major, 11 intermediate and 28 minor ports are located on the coastline of Gujarat from Koteswar in the north to Umbergaon in the south. Some of the ports are well developed and connected with their hinterland extending over Central and Northern India by an extensive network of good roads and railways. Ports provide considerable employment opportunities in their immediate hinterland and help in the development of port based industries such as oil refineries, chemical fertilizer and power plants etc. Thus, due to the locational and other advantages, these ports constitute an important infrastructural facility for the development of maritime economy of the country and stimulate growth centres in coastal areas.

7.1.1.2. The eleven intermediate ports in the State viz., Mandvi, Navlakhi, Bedi, Sikka, Okha, Porbandar, Veraval, Jafrabad, Bhavnagar, Bharuch, Magdalla, each handles a traffic of nearly one lakh tonnes or more in a year. The ports of Bhavnagar, Porbandar, Okha, Sikka, Jafrabad and Magdalla are allweather direct berthing ports. Jafrabad and Magdalla are used mainly by small coastal ships; and at other four ports large ocean going ships can be berthed at the Jetty/wharf. The remaining 5 intermediate ports are lighterage ports and other ports cater mainly to sailing vessels traffic and to fisheries. In 1984-85, ports of Gujarat handled a traffic of over 4.8 million tonnes. About 90% of the total traffic is handled at the eleven intermediate ports mentioned above and four minor ports, viz., Dahej, Pipavav, Jakhau and Mundra. The development activities have, therefore, concentrated at these 15 ports. At other ports, major development activities have not been undertaken so far.

7.1.2. Review of Progress

7.1.2.1. In the First Plan, certain basic investigations were undertaken so as to enable planning for future development. In the Second Plan, investigations for more important engineering works such as, break waters at ports like Porbandar and Veraval, hydrographic surveys, engineering model tests etc. were initiated and such schemes were executed which removed deficiencies and bottlenecks in providing basic facilities at the ports. In the Third Plan additional landing facilities like jetties wharves etc. were constructed and transit and storage facilities for cargo were provided; cargo handling equipment like cranes, etc. were installed and the lighterage fleet was strengthened. This programme was continued during the three Annual Plans and also during the Fourth Plan. During the Fifth Plan, additional facilities for improving efficiency in the working at the ports and establishment of direct berthing facilities at new ports were provided.

7.1.2.2. During the Sixth Plan, port facilities were provided at Jafrabad and Magdalla ports. The first stage works of terminal facilities at Dahej and Ghogha for operating a trans-sea ferry service between these two places were completed. Facilities for ship breaking were developed at Alang and Sachana. More facilities will be provided during the Seventh Plan with a view to develop them as full fledged ship breaking yards. The work on the important project of providing port facilities at Pipavav, in the backward district of Amreli, was started during the last year of the Sixth Plan. Other important works under the programme of construction of docks, berths, dry docks and jetties were undertaken at Navlakhi, Bedi and Bhavnagar. Additional flotilla units and cargo handling equipment were purchased. The targets in respect of above mentioned important programmes were mostly achieved. All these programmes undertaken during the Sixth Plan have helped in improving the rate of cargo handling at ports and in increasing the volume of traffic at the ports quite substantially. It has also helped in the economic development of the hinterland.

Growth of Traffic

7.1.2.3. The ports of Gujarat were traditionally export oriented, although net imports increased in the last two years. The major items of exports are deoiled cakes, groundnut seeds, bauxite, clinker and salt etc., and the principal imports are fertilizers, raw materials for fertilizers, foodgrains, cement, clinker, coal etc. The traffic handled during the last decade upto the year 1984-85 is indicated below :—

(In lakh tonnes)

Year 1	Import 2	Export 3	Total 4
1974-75	12.47	17.80	30.27
1975-76	12.19	18.83	31.02
1976-77	6.25	22.03	28.28
1977-78	5.80	14.65	20.45
1978-79	7.63	13.14	20.77
1979—80	10.40	14.20	24.60
1980—81	14.92	12.88	27.80
1981—82	17.11	12.77	29.88
1982—83	14.51	17.32	31.83
1983—84	26.95	15.21	42.16
1984—85	30.35	17.73	48.08

7.1.2.4 The traffic fluctuating around 3 million tonnes per year during the first half of the Sixth Plan has reached nearly five million tonnes in 1984—85. The increase in the traffic since 1983—84 is mainly due to more import of traditional items like foodgrains, fertilizer, sulphur, clinker, cement etc. The decline in the traffic of mineral oil over the years due to diversion of this commodity to Kandla port is more than offset by increase in import of fertilizers through Gujarat ports. It is expected that the Central Government will be permitting more import of fertilizers through the Gujarat ports in future due to quicker turnaround of ships at these ports. Thus, during the Sixth Plan the traffic has registered a steady increase due to development of facilities at ports like Magdalla, Jafrabad, Alang, etc. The steady growth of captive traffic has helped to reduce the large fluctuations in other traditional traffic.

7.1.2.5. Against an outlay of Rs. 2,600 lakh originally envisaged for the Sixth Five Year Plan 1980-85, the expenditure is likely to be around Rs. 3300 lakhs.

7.1.3. Approach and Strategy

7.1.3.1. In the past, lighterage ports which require lesser capital cost to build, were suitable for handing small quantities of cargo. Present day shipping demands all weather direct berthing facilities for ships of deeper drafts and quicker turn round of ships. Accordingly to meet these requirements the existing ports have to be modernised and expanded by providing additional berths. Ports require to be developed at new sites where large industries are being located. Development of ship-building, ship-breaking also require suitable port facilities. Additional lightelarge fleet, more cargo handling equipment and increase in warehousing and transit accommodation also require to be provided. Navigational conditions in many ports require more extensive dredging. Mechanisation of cargo handling also requires to be taken up progressively. Thus the priorities for the Seventh Plan would emerge as follows :—

7.1.3.2. Modernisation of Existing Facilities.—It is proposed to modernise the existing facilities at ports of Bedi, Navlakhi and Bhavnagar for efficiently handling the large volume of traffic passing through them. It is also proposed to augment the availability of cargo handling equipment and other flotilla in addition to the annual replacement programme carried out under the revenue budget.

7.1.3.3. Developing new port facilities.—Some of the old ports have outlived their useful existence in the context of the present trend in shipping and trade. New ports are required to be developed in place of such existing ports and also in areas where new industries are coming up. Accordingly, it is proposed to continue the work on development of Pipavav port, Dahej Ghogha Ferry Service and developing the shipbreaking yards at Alang and Sachana and other on going small works. It is also proposed to initiate development of port Hazira near Surat which is estimated to cost Rs. 1500 lakhs to provide the much needed sea outlet to industrially advanced South Gujarat.

7.1.3.4. Development of Vadinar Port.—Vadinar port which enjoys excellent marine conditions most suitable for shipping is at present functioning as an oil terminal only. It is expected that the Government of India will develop this port during the Seventh Plan for handling cargo other than mineral oil also.

7.1.3.5. The proposed programme for developing intermediate and minor ports as an integral part of the overall port system will help increase the port capacity in the country and help in the acceleration of the original development in the backward regions along the coast. The programme aims to utilise the improved technology in maritime engineering and also the data collected by satellites in the field of hydrographic investigations and surveys. The suggested programme for development of ports compares favourably with the development in other maritime states, as about 65% of traffic handled by all the minor and intermediate ports of the country pass through the ports of Gujarat.

7.1.4. Programme for Seventh Plan 1985—90

7.1.4.1 For the Seventh Five Year Plan an outlay of Rs. 30.36 crores provided, for the development of ports under State Sector. The outlay of Rs. 30.36 crores includes the spillover liability of Rs. 2000/- lakhs for different works mentioned above. The broad break-up of these outlays is as under.—

Programme	(Rs. in lakhs)
	Outlay for Seventh Plan 1985—90
A. Port and Pilotage :	
1 Development of Minor Ports	1550
2 Coastal Zone Management	10
3 Construction and Repairs	300
4 Dredging, Surveying and Investigation	500
5 Ferry Service	650
TOTAL (A)	3010

1	2	3
B. Lighthouses and Light ships (including construction and development of other navigational aids)		
6	Navigational aids	26.00
	TOTAL (B)	<u>26.00</u>
	GRAND TOTAL..	<u>3036.00</u>

7.1.4.2. Details of important works/activities are as under:—

(Rs. in lakhs)

Programme	Outlay for Seventh Plan 1985-90	
1	Construction of docks, berths & jetties at various ports	150.00
	Port equipment and machinery	50.00
	Transport facilities	25.00
	Floating crafts like tugs, barges etc.	300.00
	Warehousing facilities	25.00
	Other expenditure including ship-building, ship-breaking, office building, staff quarters etc.	1000.00
	Total	<u>1550.00</u>
2	Coastal Zone Management	10.00
3	Construction and Repairs :	
	Construction and repairs including... ..	
	Development of new Port at Hazira ..	300.00
	Total ..	<u>300.00</u>
4.	Dredging, Surveying and Investigation :	
	Survey and Investigation of Gujarat Coast ..	100.00
	Dredger and Dredging ..	400.00
	Total ..	<u>500.00</u>

1	2	3
5. Ferry Service :		
Inland Water Transport and Dahej-Ghogha Ferry Service	RO-RO Service	650.00
	Total	650.00
6. Navigational Aids		
	.. ..	2600
	Total	26.00
GRAND TOTAL :		3036.00

7.1.4.3 Development of Minor Ports:—The programme for construction of docks, berths and jetties include: (i) extension of wharf wall at Bedi and (ii) wharf wall at Navlakhi. In addition, other smaller works for improving the landing facilities at different ports are proposed to be carried out. The outlay provided for this purpose for the Seventh Plan, 1985-90 is Rs. 150/- lakhs.

7.1.4.4. By way of augmenting port equipment and machinery, it is proposed to purchase equipment like wharf cranes, tools and, plants etc. for Bhavnagar, Okha, Navlakhi, Veraval, Porbandar and Mandvi ports. Rs.50/- lakhs have been provided for this purpose.

7.1.4.5. As a measure of improving transport facilities, it is proposed to provide a concrete platform for keeping bulk cargo and other facilities at important ports for which a provision of Rs. 25/- lakhs has been made.

7.1.4.6 The programme for floating crafts includes the purchase of one 1000.BHP Tug for Okha and additional tugs and barges including self-propelled barges for different ports like Bedi, Bhavnagar, Navlakhi, Veraval etc. It is also proposed to purchase a pilot cum-survey launch. An outlay of Rs. 300/- lakhs is provided for the Seventh Plan for this purpose.

7.1.4.7 By way of adding to warehousing facilities, it is proposed to construct additional storage godowns and transit sheds at Bhavnagar, Bedi, Veraval, Navlakhi, Okha etc., for which a provision of Rs. 25/- lakhs is made.

7.1.4.8 Other Expenditure:—A major part of the provision under this sub-head is for the important projects like development of Pipavav Port, ship-breaking facilities at Alang, Sachana and other works like construction of office building, staff quarters, water supply, electrification, reclamation of low-lying areas etc. for which Rs. 1000 lakhs have been provided.

7.1.4.9 Coastal Zone Management:—An amount of Rs. 10 lakhs is provided for the Seventh Plan for setting up a Coastal Zone Management Cell.

7.1.4.10 Construction and Repairs:—The development of new port projects such as at Hazira, Koteswar, etc. is proposed to be taken up. It is proposed to provide

port facilities at Hazira at an estimated cost of about Rs. 1500 lakhs and various works like Wharves, Quays, reclamation, purchase of necessary harbour crafts, etc. will be done. Necessary capital dredging as well as provision of ancillary services like water supply, electrification, roads etc. will also be made. These works will be undertaken after necessary investigations are completed. At Koteshwar port, it is proposed to provide port facilities for handling lignite traffic. These facilities will be provided from the funds to be made available by the user industries but certain preliminary or connected works may have to be undertaken for which a provision of Rs. 300 lakhs has been made.

7.1.4.11 *Dredging, Surveying and Investigation*:—A provision of Rs. 500.00 lakhs is made for capital dredging in the approach channels at Okha, Bhavanagar and other ports and for purchase of a trailing suction dredger and a small grab dredger.

7.1.4.12 *Ferry Service*:—Dahej-Ghogha Ferry Service: The project is to provide modern ferry service for transporting loaded trucks, buses etc., across the Gulf of Khambhat between Ghogha and Dahej. The port and terminal service facilities at both the ends will be provided by Gujarat Maritime Board at an estimated cost of Rs. 1500 lakhs. Work relating to acquisition of ferry boat and operation of ferry service by a joint sector co., viz. "Dahej-Ghogha Trans-Sea Ferry Service Ltd." is in progress. The State's share in the share capital of this company is Rs. 26.00 lakhs.

7.1.4.13 *Development of Inland Water Transport*:—There is great potential for development of Inland Water Transport in the rivers of Narmada, Tapi etc. flowing through Gujarat.

- (a) Development of landing facilities such as Wharves, Jetties, etc.
- (b) Providing facilities for passenger and cargo (transit and storage).
- (c) Dredging the navigable waterways.
- (d) Undertaking hydrographic surveys, economic feasibility studies, developing boat designs etc.

7.1.4.14 A Special organisation for planning and development of Inland Water Transport will be set up. A provision of Rs. 650 lakhs has been made for providing terminal facilities for Ferry Service and for development of Inland Water Transport.

7.1.4.15 The Government of India has provided in the Seventh Plan 3 schemes of Inland Water Transport for Gujarat state; estimated cost of which is Rs. 303 lakhs. The State's share towards IWT Schemes has been considered at Rs. 75.75 lakhs during the plan period. This amount is included in the provision of Rs. 650 lakhs made in the State Plan.

7.1.4.16 *Navigational Aids*:—Local Navigational aids like beacons, buoys, lights etc. at various ports are required to be provided particularly at salt loading ports where lighterage fleet have to work in creeks. Rs. 26 lakhs have been provided for this purpose.

7.1.5 Sources of Finance.

7.1.5.1 The Gujarat Maritime Board collects revenue for services rendered to the port users and incurs revenue expenditure on management, maintenance and repairs of various assets etc. Prior to the setting up of the Gujarat Maritime Board the capital expenditure on plan works at the ports formed part of the total capital expenditure of the Government.

7.1.5.2 Though the operational surplus has continued to grow after the formation of the Gujarat Maritime Board., the revenue receipts are not sufficient for meeting the liability of revenue expenditure including the depreciation on the assets taken over from Government at the time of formation of the Board. The Government has therefore been advancing suitable amounts as interest bearing loans to the Board for incurring capital expenditure on development of ports and works provided in the Plan.

7.1.5.3. For meeting the plan outlay of Rs. 3036 lakhs provided in the Seventh Five Year Plan, 1985-90, the Gujarat Maritime Board will require Government budgetary support.

7.1.5.4 It is assessed that internal resources to the extent of Rs. 165 lakhs and institutional finance of Rs. 200 lakhs can be mobilised during the Seventh Plan. In addition, it may be possible to receive financial assistance to the extent of Rs. 635 lakhs from two port users for providing them with captive facilities at selected ports of Sikka and Koteshwar. Thus, in addition to the outlay of Rs. 3036 lakhs provided for the Seventh Plan with Government budgetary support, the Gujarat Maritime Board will be able to spend additional amount of Rs. 1000 lakhs on plan outlay as mentioned above.

7.16 Gujarat Maritime Board

7.1.6.1 The erstwhile Ports Directorate under the State Government has been converted into an autonomous body known as The Gujarat Maritime Board (GMB) from April, 1982. The development and management of the Gujarat's ports vests with this Board. No major organisational changes are needed at present; nevertheless suitable expansion of different wings of the Gujarat Maritime Board will be necessary.

7.1.7 Coastal Zone Management.

7.1.7.1 The State of Gujarat has a long coastline of about 1600 kms. which provides an extensive Coastal Zone. Although a large amount of resources-mineral, marine, agricultural, human, power etc. are available in this Zone, a systematic and optimum utilisation of these resources and the development of the Coastal Zone have not been attempted so far. Further, in view of the availability of a number of well developed ports the Coastal Zone can sustain important industries many of which can provide useful growth centres giving rise to a large number of employment opportunities. Considering the vast Potential of this Coastal Zone and on the recommendatons of the State Planning Board, the Government of Gujarat appointed a Study Gorup for formulating a development plan for coastal areas under Government Resolution dated 3rd February 1978. The Report of the Study Gorup was considered by the State Planning Board in its meeting held on 15th October 1981. The State Government appointed a Working Group under Government Resolution Dated 5th November, 1981 to consider the Techno-Economic Feasibility of the report of the Study Gorup. The reports of the Study Gorup and the working Group were placed before the State Planning Board in its meeting held on 8th August, 1983. It was decided in this meeting that the recommendations of the study Group and the Working Group could be taken into consideration by the respective Working Groups while formulating the plans for the development of coastal areas during the Seventh Plan period.

7.1.7.2. The Study Group, while evolving the approach to various aspects of the development of coastal areas, collected preliminary information relating to various socio-economic aspects of the coastal areas. The Study Group also decided that those talukas, the boundaries of which touch the sea coast should be consi-

dered as forming the coastal areas. The number of such Talukas in the States is 37 in 11 Districts and there are 549 villages identified as Coastal Villages. The Study Group also assessed the development in different sectors already taken place.

7.1.7.3 The Steering Group considered the report of the above Study Group for formulating a development plan for coastal areas. Coastal Zone Management is altogether a new concept of Multi-sectoral and multi-disciplinary character. The Steering Group attempted to identify the following core areas for specific development and for paying special attention in the Coastal Zone:—

(i) The problem of salinity caused by the ingress of sea waters is quite acute in the coastal areas. This has affected the quality of sub-soil fresh water and has also affected agricultural land.

(ii) Gujarat produces 60 % of the total salt produced in the country. Most of these salt manufacturers have not adopted modernisation in manufacture of salt. The growth of salt-based industries in the coastal areas has also not progressed to the desired degree. There is ample scope and potential for development of salt based industries in the coastal areas.

(iii) The coastal areas of Gujarat, particularly in Kachchh district, are rich in minerals. Development of minerals and mineral-based industries have also a great potential in the coastal areas.

(iv) Gujarat has the longest coast in the country and there are 11 Intermediate, 28 Minor and 1 Major port on the Coast-line from Koteshwar in Kachchh to Umargaon in Valsad. The development of these ports calls for a special attention in a phased programme as these ports can play the role of catalysts in the development of the backward coastal areas. The development of ports will also contribute to development of industries in the coastal areas.

(v) Gujarat has a special interest in the development of fisheries as it has the longest coast-line and the territorial waters are rich in marine products. There are 131 fishing centres identified on the coast of the State which can be modernised and developed to augment fish production.

(vi) Most of the coastal villages suffer from the absence of dependable transport and communication link. Of the 549 villages in the coastal areas, as many as 261 villages do not have all weather roads and therefore, during monsoon, these villages are cut-off from the rest of the population of the State. A coastal Highway linking the coastal villages with rest of the State needs a special consideration. Adequate road links to fishing centres are required to be developed.

(vii) Feasibilities for developing coconut plantations mangrove plantations and jobba plantation are also to be expanded for development of agriculture in the coastal areas.

(viii) The population of these coastal villages is about 12 lakhs which is 6% of the total rural population of Gujarat. The geographical area of these villages is about 8.55 lakh hectares. Out of 549 villages, 103 villages are without adequate drinking water facility and 44 villages have no source of potable water, and, therefore, these 44 villages have been identified as "No Source Villages. These 147 villages have therefore to be provided dependable source of potable water.

(ix) Out of 549 villages, the number of villages without electricity for domestic purposes is 308. Plans have to be formulated to provide domestic power to these villages.

(x) Some places in the coastal areas have great potential for development of tourism. These places can be developed in a phased way for tourist attraction. During the previous plans, very little has been done to exploit the tourist potential of these areas and, therefore during Seventh Five year Plan, ambitious schemes may have to be formulated for development of tourist centres in the coastal areas of the State.

(xi) The State is making a headway in the industrial growth and development in the urban areas which has caused a problem of pollution. The industrial development in the coastal areas has to be in a methodical, planned and regulated way so as to preserve the ecology and environment of these coastal areas. This can be achieved through a co-ordinated approach between the concerned Departments of the Government.

7.1.7.4. The State Government at the time of discussions on the proposals of the Seventh Five Year Plan, 1985-90 with the Planning Commission, requested the Government of India, to consider the coastal areas of the state as special Backward Areas and allocate special central assistance for the integrated development of the coastal areas of the State, Government of India, has agreed to allocate special central assistance of the order of Rs. 50 crores for the development of coastal areas during the period of the Seventh Five Year Plan. The Ports and Fisheries Department has been declared as Nodal Department for the formulation and implementation of plan programmes for the Integrated Development of the Coastal Areas of the State.

7.1.7.5 It is also proposed to set up a cell to co-ordinate the various activities of different sectors, and to monitor the sectoral progress. Care will be taken to see that the cell is headed by a person of right aptitude and background. For this purpose, a provision of Rs. 10 lakhs has been made during the Seventh Five Year Plan.

STATEMENT

Schemewise outlays for the Seventh Five Year Plan 1985-90

(Rs. in lakhs)

Sr. No.	No. and Name of the Schemes	Outlay
1	2	3
Ports, Lighthouses and Shipping		
(A) Ports and Pilotage		
<i>I—Development of Minor Ports</i>		
PRT-1	Development of Intermediate and Minor Ports	
	(a) Construction of Docks, Berths & Jetties	150.00
	(b) Port equipment and Machinery	50.00
	(c) Transport Facilities	25.00
	(d) Floating Crafts	300.00
	(e) Warehousing Facilities	25.00
	(f) Other expenditure including Shipbreaking, Office Building, Staff Quarters etc.	1000.00
		1550.00
PRT-2	Coastal Zone Mangement	10.00
	Total-I	1560.00
<i>II—Construction and Repairs</i>		
PRT-3	Construction and Repairs including Development of New Port at Hazira	300.00
	Total-II	300.00
<i>III—Dredging, Surveying and Investigation</i>		
PRT-4	Survey and Investigation of Gujarat Coast	100.00
PRT-5	Dredger and Dredging	400.00
	Total—III	500.00

IV—Ferry Services

PRT-6	Inland Water Transport and Dahej-Ghogha Ferry Service—RO-RO Service	650.00
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	Total—IV	<u>650.00</u>
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	Sub-Total —(A)—I to IV	<u>3010.00</u>
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(B) Lighthouses and Shipping*Construction and Development of other Navigational Aids*

PRT-7	Development and Construction of other Navigational Aids at Intermediate and Minor Ports	26.00
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	Total—B	<u>26.00</u>
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	GRAND TOTAL	<u><u>3036.00</u></u>
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7.2.1. Introduction

7.2.1.1. Roads play an important role in the development of industries agriculture, trade and commerce and have become a part of the fabric of our daily life. The dispersal of industries and general economic development of interior areas depend upon adequate road system. Rural roads play a vital role in dispersing industries in backward areas, providing productive employment, creating a link between industries and agriculture and forming closer ties between producers and consumers in rural and urban areas.

7.2.1.2. The working group on rural roads set up by the National Transport Policy Committee had proposed that no place should be more than 1.6 km. away from a road by the turn of the century.

Nagpur Plan and 20 Years Road Development Plan.

7.2.1.3. Planned road development in the country started with the Nagpur plan and adopted a grid and star formula for determining the kilometrage of Main Roads and other Roads. The 1961-81 Plan laid down a comprehensive formula for arriving at the kilometrage required for National Highways, State Highways, Major District Roads, other District Roads and classified village Roads depending upon the (i) developed and agriculture area (ii) semi-developed area (iii) undeveloped and uncultivable areas and (iv) number of towns/villages with different population groups. The Nagpur plan target was for 15712 Kms major Roads and 23, 425 Kms Minor Roads to have total length of 39, 147 Kms. by the end of March, 1981. However, achievement as on 31-3-61 was 22,629 Kms. The target for 20 year Road Plan (1961-81) was construction of 57268kms of roads, against which 45108 kms of roads were constructed by March, 1980.

Minimum Needs Programmes

7.2.1.4. *Rural roads.*—The revised Minimum Needs Programme envisaged to connect all the villages having population more than 1500 and 50% of the village having population between 1000 and 1500 by the end of 1990.

Tribal Area Sub-Plan

7.2.1.5. Special attention is being given to the tribal and hilly areas through the Tribal Area Sub-Plan. Village having population more than 4000 and 50% of the villages having population 500-1000 are envisaged to be connected by end of 1990 in the tribal areas of the State.

Passenger traffic

7.2.1.6. The growth of passenger traffic has progressively increased with development of network of roads as can be seen from the data of the Gujarat State Road Transport Corporation.

Year	Average No. of S.T. routes	Route kilometrage during the year (in lakhs)	No. of passengers carried (in lakhs)..
1	2	3	4
1060-61*	1491	780	1517
1973-74	3369	3115	6666

1	2	3	4
1974-75	4000	3750	7931
1975-76	4039	3783	8051
1976-77	4132	3973	8657
1977-78	4373	4324	9491
1978-79	4593	4763	10617
1979-80	4965	5253	11432
1980-81	5074	5513	12134
1981-82	5608	6153	13345

*including the private vehicles estimated.

Vehicular Traffic

7.2.1.7. The growth of the vehicular traffic has also increased considerably as can be seen from the following table.—

Year	No. of vehicles registered	%age increase
1960-61	42,195	—
1961-62	76,411	181%
1970-71	1,47,967	351%
1975-76	2,28,035	540%
1976-77	2,48,491	589%
1977-78	2,71,910	644%
1978-79	3,08,119	730%
1979-80	3,58,109	849%
1980-81	3,75,683	890%
1981-82	4,55,344	1079%

7.2.2. Review of Progress

Road Length

7.2.2.1. The road length including National High ways was 13154 kms. in 1950-51; this increased to 45108 by the end of 1979-80. Thus, there was an increase of 31954 kms. of roads during this 30 years period. The road length including the National Highways constructed in various plans is also indicated below :—

		(in kms.)		
Sr. No.	Year	Surfaced	Unsurfaced	Total
1	1950—51	6,621	6,533	13,154
2	1955—56	7,786	10,001	17,787
3	1960—61	11,930	10,699	22,629
4	1965—66	14,104	11,925	26,029
5	1968—69	15,685	16,526	32,211

1	2	3	4	5
6	1973—74	21,632	17,349	38,981
7	1977—78	26,252	16,107	42,359
8	1978—79	27,519	15,737	43,256
9	1979—80	29,895	15,213	45,108
10	1980—84	45,148	10,333	55,481

Categorywise length

7.2.2.2. The categorywise progress made on the road works, by Gujarat State from 1961-84 is as under :—

Sr. No.	Year	National Highways	State Highways	Major District Roads	Other District Roads	Village Roads	Total
1	Target (1961-81)	3602	6168	14382	16441	17035	57628
2	1961	1005	4025	6086	7008	4595	22629
3	1980	1435	9097	10542	10571	13463	45108
4	1984	1421	9285	11258	12050	21467	55481

Length as per type of surface

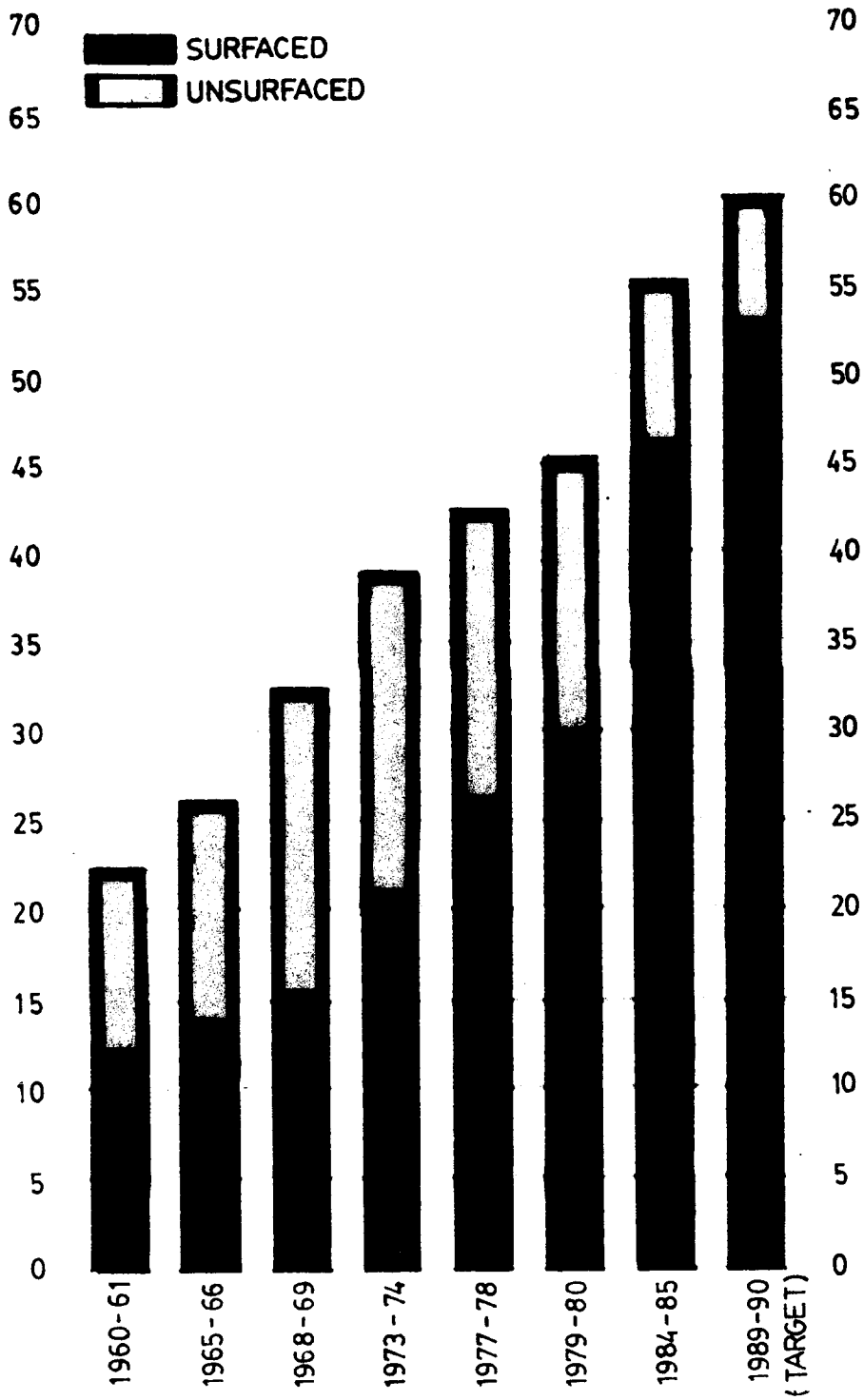
7.2.2.3. The surfacewise road kilometerage in Gujarat State in 1980 and 1984 is as under :—

Sr. No.	Year	Cement concrete	Black top	Water bound macadam	Other surface	Total
1	1980	.. 418	21,110	8,367	15,213	45,108
2	1984	.. 22	29,292	15,834	10,333	55,481

The category and surfacewise road length on 31st March 1984 is as under :—

Sr. No.	Category	Cement concrete	Black top	Water bound macadam	Total surfaced	Unsurfaced	Total
1	National Highways	..	1421	..	1421	..	1421
2	State Highways	12	8971	115	9098	187	9285
3	Major District Roads	7	8728	1288	10023	1235	11258
4	Other District Roads	3	5061	4010	9074	2976	12050
5	Village Roads	..	5111	10421	15532	5935	21467
	Total	.. 22	29292	15834	45148	10333	55481

LENGTH OF ROADS IN THOUSAND KILOMETRES



Number of villages joined

7.2.2.4. The position in respect of villages joined by pucca all weather roads at the end of 1979-80 and 1984-85 is detailed below :—

Population group of villages	No. of villages in the State as per 1971 Census	No. of villages joined by the pucca road at the end of 1979-80	No. of villages as per 1981 census	No. of villages joined by the end of 1984-85
1500 and above	3664	2441	5060	4602
1000—1500	2964	1402	3241	2395
500—1000	5217	1830	4949	4622
Less than 500	6430	1739	4846	
Total	18275	7412	18116	11619

A village having village boundry away from a surfaced road less than 500 meters is considered as village connected by all weather road.

The accessibility of villages as on 31st March, 1984 is as under :—

Sr. No.	Item	Villages having population as per 1981 census (Provisional)				
		1500 and above	1000 to 1500	500 to 1000	Below 500	Total
1	2	3	4	5	6	7
1	Connected by pucca roads as on 31-3-84	4502	2295	2581	1741	11119
2	Connected by Kachcha roads as on 31-3-1984	357 (257)	553 (224)	1231 (331)	1408 (284)	3549 (1096)
3	Not connected by any roads as on 31-3-1984	201 (130)	393 (116)	1137 (173)	1717 (163)	3448 (582)
	Total villages that will be connected by all weather roads by the works included in the budget estimates of 1984-85	(387)	(340)	(504)	(447)	(1678)
	Total	5060	3241	4949	4866	18116

Note.— Figures in brackets indicate number of villages to be connected by all weather roads by works taken up in the budget for 1984-85.

The existing number of major bridges in Gujarat State as on 31st March 1984 is 940.

In addition to this, there are 46003 culverts with linear waterway upto 7 mtrs. and 3879 minor bridges with linear waterway between 6 mtrs. to 30 mtrs. as on 31st March 1984.

Rural Landless Labourers Employment Gurantee Programme

7.2.2.5. This scheme has come into force during December, 1983 and State Government has prepared three projects as under which are approved by the Government of India :—

Sr. No.	Project Year	Estimated cost of project (Rs. in lakhs)	Length of Roads in K. M.	Nos. of villages that will be connected	
				Above 1000	Below 1000
1	1983-84	457	493	32	159
2	1984-85 Part-I	355	439	42	109
3	1984-85 Part-II	414	408	38	70
Total		1226	1340	112	338

Twenty Year Road Development Plan (1981--2001)

7.2.2.6. The Draft Report prepared by the Working Group which was discussed in the Indian Road Congress in September 1984, recommended the following targets for Gujarat during 1981-2001.

(1) Total road length of the roads to be provided by the end of 2001 excluding urban roads is 1,19,880 kms. to provide all villages with alweather roads by the end of century.

(2) Requirement of road length according to various categories in Gujarat is as under :—

	1981-2001 Road Plan	Target of Road length		Balance length to be provided or upgraded
		Road Plan	existing on 31-3-84	
N. H.	3920	3602	1421	2499
S. H.	12020	6170	9285	2735
M. D. R.	22540	14380	11258	11282
O. D. R. & V. R.	81400	33476	33517	47883
Total	119880	57628	55481	64399

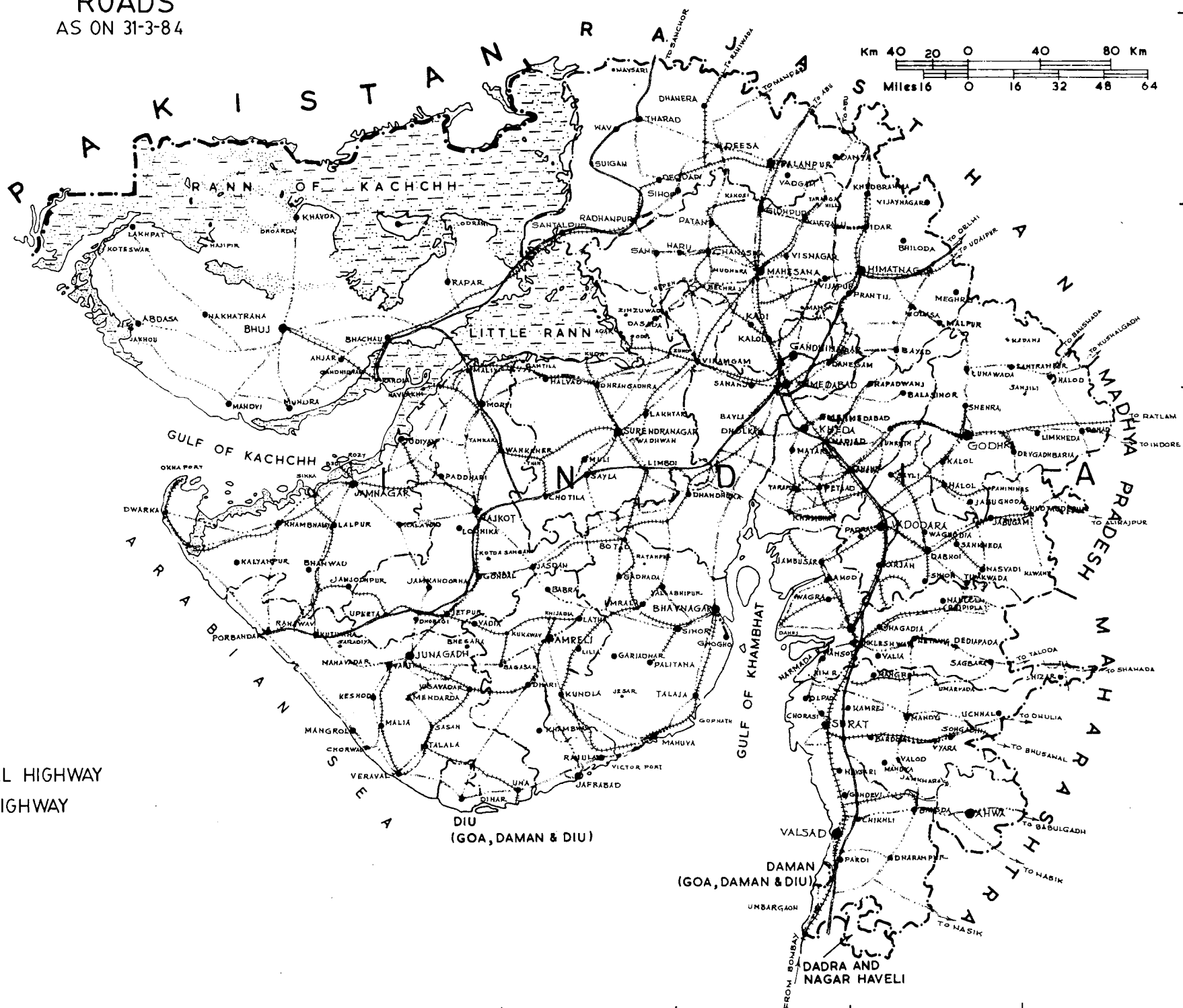
(3) Roads would have to be widened and strengthened as per national norms and would have to be provided cross drainage works where necessary.

GUJARAT

ROADS
AS ON 31-3-84

BOUNDARIES:
INTERNATIONAL
STATE / UNION TERRITORY
DISTRICT

Km 40 20 0 40 80 Km
Miles 16 0 16 32 48 64



— NATIONAL HIGHWAY

..... STATE HIGHWAY

68° East of Greenwich 69°

70°

71°

72°

73°

74°

75°

MAP OF INDIA WITH THE PERMISSION OF THE
GOVERNMENT OF INDIA
WATERS OF INDIA EXTEND INTO THE SEA TO A DISTANCE OF TWELVE NAUTICAL MILES
FROM THE APPROPRIATE BASE LINE.
THE CORRECTNESS OF INTERNAL DETAILS RESTS WITH THE PUBLISHER.

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State Transport requirements

7.2.2.7. During 1982-83 Gujarat State Road Transport Corporation had 116 depots and operated 11932 routes per day and had a fleet of 6958 buses. The maximum effective kms. operated is about 618 lakhs. The road length of different types of surface as on 31st March 1983 and effective kms. operated thereon during March 1983 is as under :—

Item 1	Cement concrete and tar 2	Metal 3	Kachcha 4	Total 5
Roads surface as on 31-3-1983 in K. M.	27246	8901	36325	72472
% to total	37.6	12.3	50.1	100.0
Effective Kms. (in lakhs operated in March 1981)	451.78	21.77	55.27	531.82
% to total	84.9	4.1	11.0	100.0

It is desirable to improve the existing surface of the roads to have better riding surface and to economise the cost of fuel and operation cost of the vehicles, and also to have allweather road-length. 20 % of the routes are not operated in monsoon period due to kachcha roads being unmotorable.

7.2.3. Approach and strategy for the Seventh Five Year Plan, 1985-90

7.2.3.1. Road network should be developed so as to preserve the rural oriented economy of the country. This will ensure check on the exodus of population to cities and towns.

7.2.3.2. In order to achieve the above objective, all villages having population over 1000 in non-tribal areas and over 500 in tribal areas and 50% of the villages having population between 1,000 and 500 in non-tribal areas and between 500 and 250 in tribal areas would be connected by allweather roads by the end of 1990.

7.2.3.3. Roads should be built in less industrialised areas to encourage the growth of industries.

7.2.3.4. Roads should be conceived as the first major choice of construction programme to generate employment for the rural unemployed.

7.2.3.5. The road network would be scientifically conceived to afford maximum usage. Gujarat State has prepared a long term Master Plan for the roads at Taluka/District and State level.

7.2.3.6. Energy conservation by resorting to measures such as road widening, strengthening and improving the riding quality and geometrics would be given high priority.

7.2.3.7. The environmental quality of roads and areas through which they pass will be improved.

7.2.3.8. Road safety measures are proposed to be taken up to contain and bring down the level of road accidents.

7.2.3.9. The existing narrow bridges are proposed to be widened, low level bridges are proposed to be raised and missing bridges are proposed to be included.

7.2.4. Programme for Seventh Plan 1985-90

Spillover liabilities

7.2.4.1. The Seventh Plan starts with a spillover liability amounting to Rs. 15062 lakhs as detailed below :--

Spillover liability

(Rs. in lakhs)

Item	No. of works	Realistic Estimated cost.	Likely Expenditure by the end of 1984-85	Spillover liability on 31-3-'85
Normal				
(a) Panchayats	1712	12734	6385	6349
(b) Government	339	13522	7402	6120
Total Normal:	2051	26256	13787	12469
Tribal				
(a) Panchayats	447	3683	2133	1550
(b) Government	174	3710	2667	1043
Total Tribal:	621	7393	4800	2593
Grand Total:	2672	33649	18587	15062

Improvement of Roads to reduce traffic accidents

7.2.4.2. Traffic accident are increasing day by day and it is necessary to minimise the loss due to road accidents. The future growth of vehicle population will increase the gravity of the situation and therefore it is proposed to provide the requirements according to the safety standards in the road network. This can be achieved by engineering measures such as provision of proper super-elevation, adequately designed horizontal and vertical curves, ensuring proper sight distance, roads installing road signs, providing traffic markings on the roads, improving road junctions etc., wherever necessary on the existing roads. The traffic engineering cell at Vadodara has undertaken studies to identify the accident prone spots and has suggested engineering remedial measures to improve the present situation.

Roads in Command Area

7.2.4.3. There will be very little spillover liability on the road works which are taken up in the command areas of two medium irrigation projects *viz.*, Sukhi and Panam and four major projects namely: Karjan, Heran, Damanganga and Ukai-Kakrapar.

Rural Roads Project with World Bank aid

7.2.4.4. The Government of Gujarat has prepared and submitted to Government of India early in July 1980 the Master Plan of Rs. 580 crores for all the 19 districts. This project was subsequently pruned down by preparing and modifying the Rural Roads Project amounting to Rs. 166.90 crores for seven districts *i. e.*, Ahmedabad, Sabarkantha, Banaskantha, Mehsana., Rajkot, Junagadh and Bhavnagar and was submitted to Government of India in February, 1982. The object of the project is for developing transport infrastructure to facilitate movement of milk and dairy products, agriculture inputs and outputs, while meeting the transport needs of the rural areas and is considered to be of great significance in the overall process of achieving the integrated development of rural areas.

7.2.4.5. The proposed road works under this project are classified in three categories; (a) New construction (b) Reconstruction (Existing alignment), and (c) Improvement (Existing roads).

7.2.4.6. The final estimated cost of the rural road project under appraisal with the World Bank is Rs. 190 crores as under :—

<i>Civil Works :</i>	<i>Rs. in crores</i>
(a) New Construction.	41.36
(b) Reconstruction	30.86
(c) Improvement	34.45
	<hr/>
	106.67
	<hr/>
1. Building works	2.40
2. Machinery	20.00
3. Engineering staff	19.00
4. Contingency	14.00
5. Price contingency	28.00
	<hr/>
	190.07
	<hr/>

The total length of the roads in various categories is as under :—

a. New Construction.	1031 KM
b. Reconstruction	988 KM
c. Improvement	2023 KM
	4042 KM

7.2.4.7 The above project will connect new villages as under:—

Sr. No.	Name of District	population Groups of villages				Total
		1500 and Above.	1000—1500	500—1000	Below 500	
1.	Ahmedabad ..	—	3	16	11	30
2.	Sabarkantha	7	15	73	40	135
3.	Mehsana ..	12	30	62	17	121
4.	Banaskantha ..	10	22	42	20	94
5.	Rajkot ..	—	3	25	4	32
6.	Junagadh ..	8	13	25	10	56
7.	Bhavnagar ..	6	12	9	11	38
	TOTAL:— ..	43	98	252	113	506

It will also improve the road condition of the existing road works on hand connecting 1050 villages.

7.2.4.8 During the Seventh Five Year Plan an allocation of Rs. 50 crores under this project would leave spillover liabilities of Rs. 140 crores in the Eight Five Year Plan. The component for the Minimum Needs Programme would be of the order of Rs. 609 lakhs covering 166 Kms. road length. The details of number of works and the category of the works and the amount required for each category are as under:—

Sr. No.	Name of District	Length of N. C. or R. C. km.	Estimated cost lakhs	Nos. of villages		Total Nos. of villages
				Above 1500	Below 1500	
1	2	3	4	5	6	7
1.	Sabarkantha	28.00	87.08	6	3	9
2.	Mehsana	51.50	184.12	19	3	22
3.	Banaskantha	78.00	308.31	13	9	22
4.	Junagadh	8.50	29.32	2	—	2
	Total ..	166.00	608.83	40	15	55

7.2.4.9. During the Seventh Plan all the villages with a population over 1000 and 50% of villages between 1000 and 500 in non-tribal area and all the villages having population of over 500 and 50% of the villages with population between 500 and 250 in tribal areas are proposed to be connected.

Coastal Highways

7.2.4.10. The State has a coastline of about 1600 kms. which connects one major, 11 intermediate and 28 minor ports. The State Government has already moved Government of India to notify the coastal highway as National Highway. Works of missing bridges, widening and strengthening of the existing roads are proposed to be taken up during the Seventh Five Year Plan.

Roadside Amenities

7.2.4.11. With the increase in the road traffic of cars and buses and in the transport of goods by roads through trucks, trailers etc. it is necessary to develop roadside amenities like :

(1) Motels (2) Bus-bays (3) Canteens (4) Toilet rooms (5) Public telephone places with first aid (6) Drinking water (7) Washing facilities (8) Petrol pumps and service stations with spare parts and repair shops (9) Development of roadside parks.

Tree planting along the roads initiated since the Fifth Five Year Plan through the Forest Department will be continued.

Control of access on the highways

7.2.4.12. At present ribbon development is controlled under the Land Revenue Code, Ribbon development rules are also enforced by the Revenue Department, Roads and Buildings Department cannot take any action directly for removal of encroachment or control on the construction work within the control lines for restricted ribbon development as no magistrial powers are vested with Roads and Building Department. A Highways Bill has been introduced in this connection in the Legislature. The report of the select committee is under consideration.

7.2.4.13. The requirement and the provision for Road Development during Seventh Five Year Plan is as under:—

(Rs. in lakhs).

Sr.No.	Details	Amount Provided.
1	2	3
1.	Spillover works: State	7163
	Panchayat	7899
	Total:—	15062

2. New works—Rural roads under World Bank Aid

(a) New construction	}	5000
(b) Reconstruction		
(c) Improvement		
(d) Other cost of machinery, estt. cost exalation etc.		
Total :—		<u>5000</u>

3. State Roads-New works :

(a) New construction	}	1700
(b) Widening of Roads		
(c) Strengthening of Roads		
(d) Improvement to roads, over bridges, bye-passes service roads and improvement to junctions.		
(e) Bridges including improvements		
Total :— ..		<u>1700</u>

4. Panchayat: new works other than 2 above

(a) New construction	}	1800
(b) Surfaced road from earthen surface		
(c) Improvement of surface or strengthening of existing W. B. M. crust		
(d) Bridges		
Total :— ..		<u>1800</u>

5. Miscellaneous items:

(a) Widening C. D. works.	}	223
(b) Strengthening side shoulders		
(c) Road safety, Research work, roadside amenities, drainage improvements.		
		<u>223</u>

6. Establishment

		<u>2000</u>
Total ..		<u>25785</u>

7.2.4.14. A provision of Rs. 25785 lakhs is provided in the Seventh Plan 1985-90 as per the details given below.

(Rs. in lakhs)		
Item	Spillover liability	Outlay provided for Seventh Plan, 1985-90
1	2	3
Spillover liability		
(a) State	7163	7163
(b) Panchayat	7899	7899
Total ..	15062	15062
Rural Roads-World Bank	—	5000
New Works		
(a) State	..	1700
(b) Panchayat	..	1800
	..	3500
Miscellaneous and Establishment	..	2223
	15062	25785

The new road works which are to be done with earth-work are proposed to be done under RLEGP programme and works to the extent of about Rs. 20 crores can be taken up under the said programme and remaining works for making the roads to required crust thickness will have to be provided under the State programme. Selection of works under the decentralised schemes under the Road Development will cover the works included in the Master Plan as far as possible to achieve the required targets of accessibility of the villages in rural areas.

7.2.4.15. The physical targets for the Seventh Five Year Plan will be as under :

A. Spillover works (State and Panchayat)

A. Widening/Strengthening existing roads	650 KM
B. Improving surface roads	950 KM
C. Providing surfaced roads from Kachoha roads	2900 KM
D. New road length	1000 KM
E. Bridges	300 Nos.

B. Rural Roads under World Bank

A. New construction	725 KM
B. Re-construction	550 KM
C. Improvement	1175 KM

C. New works (State)

A. New construction	50 KM
B. Widening/Strengthening	400 KM
C. Bridges	20 Nos.

D. New works (Panchayat)

A. New Construction	800 KM
B. Providing surfaced roads from earthen roads	1000 KM
C. Improvement to surface roads	200 KM
D. Bridges	20Nos

E. New villages that will be connected during the Seventh Plan period will be as under :—

Population	Number of Villages Targets Proposed for Seventh Plan			
	With spill- over works	With rural road project	Normal project	Total
1	2	3	4	5
1500 and above	287	40	100	427
1000 and 1500	240	80	110	430
500 to 1000	361	100	100	561
Below 500	205	60	100	365
Total	1093	280	410	1783

The allocation under the Minimum Needs Programme is made as under :

(a) Spillover works of Sixth Five Year Plan as on 31-3-1985	Rs. 21.16 crores
(b) Rural road project with World Bank aid-new works	Rs. 6.09 crores
(c) New works from earthen to metal surface or asphalt surface	Rs. 10.00 crores
Total	Rs. 37.24 crores

Implementation :

7.2.4.16. For implementing the project, it is essential to have the requirement of (1) Trained Personnel (2) Quality material (3) Modern machineries (4) Adequate funds and efficient organisation at different levels.

7.2.4.17. So far as the execution of work as well as machinery are concerned, the financial norms for one sub-division is Rs. 35 lakhs on an average per year; norm for a division is to have 4 to 6 sub-divisions and norm for a circle is to have 4 to 6 divisions. It is also proposed to have one Circle for 3 Districts and a District is to be considered as unit for working out the requirement of sub-divisions and divisions in a district. The norms on the basis of physical workload is under consideration of the A. R. T. D. There is a separate Design Organisation to look after the design work of buildings and bridges. An investigation and project pre-

paration unit for the road project works has also been set-up. The State has an Engineering Research Institute at Vadodara with 3 Zonal centres and District Laboratories for testing of materials as well as for quality control enforcement. The State also has a Staff Training College to train technical personnel in administration, accounting procedure and latest techniques and know-how in the field of construction etc. A quality control unit headed by a Chief Engineer has also been set-up.

Materials

7.2.4.18. The materials like cement, steel, asphalt are procured by the Department and issued to the contractors. Government owned quarries produce stones, metal, kapchi or grit. The asphalt is generally used in bulk in preference to packed asphalt in drums so as to save foreign exchange on the sheets and also to economise on cost.

Machinery and Equipments

7.2.4.19. The machinery required for the road works include (1) Road rollers (2) Water Tankers (3) Trucks (4) Tippers (5) Hot mix plant (6) asphalt mixers, (7) asphalt breaker. In addition, for quarry, it is necessary to have equipment like (a) air compressors and drills (b) Stone crushers and granulators etc. In Gujarat a number of private contractors are also having hot mix plants with paver finisher and other equipment. The department has the following items of machinery :

Road rollers	846
Trucks	181
Tippers	253
Water tankers	322
Hot mix plants	6

Replacement of old rollers, trucks, tankers, and tippers and additional equipment to cope up with the new road works is proposed to be taken up during the Seventh Five Year Plan.

Centrally Sponsored Programme

7.2.4.20. The State has a common boundary with Rajasthan, Madhya Pradesh Maharashtra, Daman, Dadaranagar Haveli and therefore it is essential to have inter-state roads. Similarly within the State there are some roads which are of considerable importance. Upto the Sixth Five Year Plan about 15 works were taken up with approved estimated cost of Rs. 692 lakhs under the programme of Inter State Roads and Roads of Economic Importance. According to the decision taken by the National Development Council, roads of Inter State Importance will continue as fully Centrally sponsored programme and the roads of economic importance will continue on sharing basis. An outlay of Rs. 39 lakhs for Seventh Plan 1985-90 has been provided towards State share in respect of the scheme of Roads of Economic Importance. An equal share is expected from Government of India.

National Highways

7.2.4.21. At the end of 1981-82 the total length of National Highways in Gujarat State was 1424 Kms. as against the 20 Year Road Plan target of 3602 KMs. In view of this huge deficit, Gujarat State has proposed to the Government of India to declare 10 important State Highways as National Highways. The total length of the roads proposed for upgradation is 2273 KMs. The State Government has also requested the Government of India that following three roads having a total length of 1127 KMs. be declared as National Highways :—

Sr. No.	Item	Length in Gujarat State (in KMs)
1.	Ahmedabad-Bhopal road Via. Indore	180
2.	Kandla-Bombay Coastal Highways-Porbandar-Bhavnagar - Cambay-Vadodara	861
3.	Surat-Calcutta road via. Dhulia and Nagpur.	86
	Total	1127

7.2.4.22. The Western Zonal Council has also resolved to declare the Coastal Highway as National Highway in Maharashtra and Gujarat for which Government of India has to be approached. The length of the Coastal Highways in Gujarat is 1776 KMs. In accordance with the guide lines and parameters prescribed by the Ministry of Shipping and Transport, (Government of India), a comprehensive plan for the National Highway system in Gujarat has been prepared costing 249.88 crores, of which an outlay of Rs. 207.27 crores is proposed for road works while a provision of Rs. 42.61 crores is proposed for bridge works. The main features of proposal are as under :—

(A) Road Works :

(i) Widening single lane to two lane (76 kms. length)	Rs. 3.10 crores
(ii) Strengthening existing two lane National Highway (1290.20 kms. length)	Rs. 88.21 crores
(iii) Widening two lane to four lane (369.30 kms. length)	Rs. 59.09 crores
(iv) Removal of bottlenecks by providing bye-passes and R. O. B. 3 bye-passes and 10 R. O. Bs.	Rs. 17.75 crores
(v) Additional proposal to N. H. system (315.40 kms. length)	Rs. 11.00 crores
(vi) Miscellaneous	Rs. 28.12 crores

B. Bridge works :

(i) Reconstruction of major and minor bridges	Rs. 6.91 crores
(ii) Construction of bridges for widening to four lane	Rs. 35.70 crores

Ahmedabad-Vadodara Expressway :

7.2.4.23. Looking to the very heavy intensity of existing traffic on Ahmedabad-Vadodara section of National Highway No. 8 and taking into consideration the traffic projection in 1990, even a four lane divided carriageway of National Highway would be inadequate to cater to the needs of traffic. In order to adequately meet the future needs of traffic, the State Government has prepared a preliminary Ahmedabad-Vadodara Expressway project. The 92 KMs. long Expressway shall have limited entry and exit and all grades separated crossings.

7.2.4.24. The Government of India has selected this project for obtaining World Bank assistance. The estimate for Survey and Investigation amounting to Rs. 100.88 lakhs is approved by Ministry of Shipping and Transport. The detailed engineering survey is completed in June 1984 and preliminary estimate is submitted to the World Bank. The World Bank mission visited the site in October, 1984. The final decision is awaited.

STATEMENT

Roads and Bridges

Schemewise outlays for the Seventh Plan, 1985-90

(Rs. in lakhs)

Sr. No. 1	No. and Name of the Schemes 2	Total 3
1.	RDP-1. Roads and Bridges	
	I State Roads	20061
	II Rural Roads (MNP)	3724
	III Miscellaneous and Establishment	2000
	Total ..	25785

7.3. ROAD TRANSPORT

7.3.1. Nationalisation

7.3.1.1. Passenger road transport services have been completely nationalised in Gujarat State since 1969-70. It is, therefore, necessary for the Gujarat State Road Transport Corporation, as a sole operator, to cater to the natural increase in traffic on the existing routes from year to year. It is also necessary to take steps to extend passenger road transport services in the areas not covered so far.

7.3.2. Growth of traffic in Gujarat State

7.3.2.1. The passenger traffic on roads in Gujarat State has been increasing at a compound rate of 11.3% per year as against 9% in the country as a whole, and the growth of railway traffic at about 5% per year. To cope up with this rise in traffic, it is necessary to increase the number of schedules operated at least at the rate of 5% per year, the balance of this rise in traffic being catered to by increase in the seating capacity and increase in vehicle utilisation.

7.3.3. Perspective of Development

7.3.3.1. For the economic development of rural areas, the Corporation has adopted a unique policy of extending direct services to all the villages in the State in stages, subject to availability of motorable roads connecting the villages and funds for expansion. On account of rapid expansion of services achieved by the Corporation, as on 31st March, 1984, the Corporation provides direct services to 86.1% of the towns and villages, covering 96.7% of the State population. The Corporation has recently taken a decision to cover all the villages with bus services directly even if a kuchcha road is available. Accordingly, 1810 villages were linked with direct services in May 1984. To fulfil this objective during the Seventh Five Year Plan period, it will be necessary to increase the number of schedules for expansion of services at the rate of 5% per year. But looking to the financial allocations, the Seventh Plan envisages the rate of expansion of schedules by 2% per year.

7.3.4. Programme for the Seventh Five Year Plan 1985-90

7.3.4.1. The size of the State Plan for the Seventh Five Year Plan 1985-90 has been kept at Rs. 84.94 crores for "Road Transport" sector. This comprises Rs. 80.87 crores as capital contribution of State Government, Rs. 36.86 crores from the Internal Resources of the Corporation and Rs. 17.21 crores from Life Insurance Corporation.

7.3.4.2. During the period of Seventh Five Year Plan, it is proposed to add 635 schedules, bringing the total number of schedules to 6563 at the end of 1989-90. It is also proposed to add 702 new vehicles to the fleet during this period, taking the total strength of the fleet to 8242 by the end of 1989-90. Besides, it is proposed to replace 5391 vehicles which have completed their stipulated life and are due for replacement during 1985-90. It is also proposed to expand workshop facilities in the State.

7.3.4.3. At present banks and some financial organisations have been entrusted with the task of meeting the financial requirements of "Road Transport". But during the period of Seventh Five Year Plan, it is proposed to set up a "Road Transport Finance Corporation" at the national level which will monitor the financial needs of Road Transport and meet them adequately. The State will take the benefit of such Corporation for the overall development of Road Transport in the State during the period of Seventh Five Year Plan.

STATEMENT

Schemewise Outlays for the Seventh Five Year Plan 1985-90

(Rs. in lakhs)

Sr. No.	No. and Name of the Scheme	Outlay for 1985-90
1	2	3
1	RTS-1 Road Transport	8494.00
Total ...		8494.00

7.4.1 INTRODUCTION :

7.4.1.1 The glory that is Gujarat takes us back to 5,000 years during which several civilizations flourished on its soil and several human races visited it and some of them made it their home. The oldest of the archaeological remains in India have been located at Lothal, 70 kilometers from Ahmedabad, where the Indus valley civilization flourished. A large area with a dockyard of a city of the Harappan age has been excavated. The other landmark in the history of Gujarat could be said to be the migration of Lord Krishna from Mathura in north to Dwarka, in Gujarat. Then followed several waves of foreigners among whom were Bactrians, Greeks, Huns, Syrians and Shakas. The history of this region is thus an eloquent tale of assimilation of cultures and intermingling of races, subjected to a process of synthesis and evolution in diverse fields.

7.4.2. REVIEW OF PROGRESS :

7.4.2.1 Tourist attractions held out in the present day Gujarat are as varied as the Lion sanctuary at Gir, the sacred temples of Dwarka and Somnath, Palitana, the picturesque mountain city of Jain Temples on about 2,000 feet high Shatrunjaya hills, Udwada, the oldest place of the fire temple of parsees in India, the 5,000 years old archaeological finds at Lothal; the 11th century sun temple at Modhera, bird sanctuary at Nal Sarovar; architectural monuments of Indo-seraconic style at Ahmedabad and other places; the national shrine of Sabarmati Ashram at Ahmedabad. Gujarat Refinery, Fertilizers company and Amul Dairy. These are just a few of the many ancient, medieval and modern attractions available in the State. Besides, there are a number of places providing holiday homes, picnic spots and health resorts.

7.4.2.2 After the identification of the three travel circuits, namely :—

Travel Circuit No. 1 : Ahmedabad - Rajkot - Jamnagar - Dwarka - Porbandar - Junagadh - Sasan - Gir - Veraval (Somnath) - Bhavnagar - Palitana - Lothal - Ahmedabad.

Travel Circuit No. II:- Ahmedabad - Dakore - Vadodara - Shuklatirth-(near Bharuch) - Ukai - Saputara - Surat - Ahmedabad.

Travel Circuit No. III: Ahmedabad - Vankaner - Bhuj - Mandvi Beach - Radhanpur - Palanpur - Siddhpur - Patan - Modhera - Ahmedabad, the stress has been to develop the centres identified along them. The intention obviously being to promote Gujarat both in the domestic and international tourism.

7.4.2.3 An outlay of Rs. 260.00 lakhs was provided in the Sixth Plan in the State for the implementation of various schemes such as, construction of dormitory at Chorwad, Staff quarters at Junagadh and Palitana, Dormitory at Pavagadh, electrification at Bet-Dwarka, Organisation of Tarneter fair and Saputara festivals and increase in transport fleet.

7.4.3 Approach and Outline of the Development Programme (1985-90)

7.4.3.1. The Seventh Five Year Plan 1985-90 is a part of a perspective development plan for preserving and improving existing tourist spots and the development of new places of tourist interest. It is intended to attract foreign tourists, as well as the more numerous domestic tourists. The proposed projects are as under :

—Development of Saputara and new hill stations.

- Renovation and modernisation of existing beach resorts at Tithal, Ubhrat, Hajira and Chorwad.
- Development of new beach resorts at Ahmedpur-Mandvi, Kachchh-Mandvi and Nargol alongwith townships.
- Renovation of existing tourist complexes at Gandhi-Ashram, Ahmedabad, Porbandar, Dwarka and Palitana.
- Development of motels on the highways at Ankleshwar, Champaner, Ambaji, Limbdi, Junagadh, etc.
- Development of chain of restaurants at Bet-Dwarka, Somnath, Ajwa, Adalaj, etc.
- Development of lake resorts at Ukai, Narmada and Kadana,
- Increasing strength of the transport fleet and number of conducted tours.

7.4.3.2. More than 25 lakh domestic tourists visit the State annually. Amenities for these tourists at various centres would therefore be improved. The private sector would be encouraged to put up more hotels/motels in the State.

7.4.3.3. More than 25,000 international tourists visit Tourist places of the state every year. To make their stay comfortable, more facilities would be provided at Ahmedabad, Modhera Sun Temple, Palitana, Gir Forests and at selected beaches.

7.4.4. Programme for Seventh Five Year Plan, 1985-90

7.4.4.1. An outlay of Rs. 425 lakhs has been provided for Seventh Plan. The broad break-up is as under:—

(Rs. in lakhs)

Programme

Outlay

I—Tourist Accommodation :

1	Development of Sasan-Veraval Porbanadar Complex :	..	30.00
2	Development of Ahmedabad Complex ..	..	3.00
3	Development of Hot Springs and Picnic Spots	..	10.00
4	Development of Holiday Homes, Tourist Bungalows, Hotels Motels, Ropeways, etc. ..	..	130.00

II—Tourist Information & Publicity :

5	Tourist Publicity through various media of existing facilities, ..		60.00
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III—Other Expenditure :

6	Coastal Cultural tours and inter-State tours and development of tourist facilities and Tourist spots	125.00
7	Share Capital to the Tourism Development Corporation of Gujarat Ltd. and Infrastructure facilities	..	67.00

Grand Total : 425.00

Development of Sasan-Veraval-Porbandar Complex.-Tourist Bunglow near Gir Hill

7.4.4.2. Girnar in Junagadh district is famous place of pilgrimage visited by over 5 lakh tourists every year. Suitable accommodation as well as dining facilities are not available at Girnar where several tourists make night-halt for onward journey to Dattatray steps next day. It is, therefore, proposed to provide dormitories, canteen and recreational facilities at Girnar during the Seventh Five Year Plan period for which an outlay of Rs. 30.00 lakhs is provided.

Development of Ahmedabad Complex Wayside facilities at Shamlaji.

7.4.4.3. Shamlaji is a pilgrim centre situated halfway between Ahmedabad and Udaipur on the National Highway. A Buddha Stupa has been excavated near this place. At present, there is no facility for lodging, boarding etc., for tourists travelling on this high-way. It is proposed to develop this spot by providing cafeteria with a few living rooms. An amount of Rs. 3.00 lakhs is provided for this purpose in the Seventh Plan.

Development of Hot Springs and Picnic Spots.

7.4.4.4. Gujarat has hot springs at Ukai in Valsad district, Lasundra in Kheda District, at Tuwa in Panchmahals District, at Tulsishyam in Junagadh District and at Bhiloda in Sabarkantha District. It is proposed to survey Bhiloda and provide tourist facilities at this spot during the Seventh Plan period. It is also proposed to develop picnic spots one in each district with the co-operation of District Panchayats and other local bodies. An amount of Rs. 10.00 lakhs has been provided for the Seventh Plan.

Development of Holiday Homes, Tourist Bungalows, Hotels, Motels, Ropeways etc.

(1) Beach Resorts

7.4.4.5. Gujarat has a long sea-coast of about 1600 kms. on which several good beaches are located. During the Seventh Plan period beaches near Nargol in Valsad district and near Mandvi in Kachchh district are proposed for development. Facilities for lodging and appropriate recreational facilities are proposed to be provided. A town-ship on one selected beach for the holiday makers is proposed so that tourists coming to this spot can take advantage of the beach and recreation facilities throughout the year. An amount of Rs. 60.00 lakhs is provided for the Seventh Plan 1985-90.

Motels and Mid-way facilities

7.4.4.6. There are a large number of towns and cities through which National Highway passes in Gujarat. Many tourists travelling by road, require wayside facilities. It is, therefore, proposed to plan and put up motels, rest huts and such other facilities preferably near petrol pumps on highways near Rajkot, Porbandar, Junagadh, Bhavanagar, Bhuj, Vapi, Palanpur, Himatanagar, etc., during the Seventh Plan period. Accommodations, dining facilities, snack bars, parking, drinking water, toilets etc., are proposed to be provided for which a sum of Rs. 10.00 lakhs is provided for the Seventh Plan.

Ukai/Narmada

7.4.4.7. Ukai is the largest manmade lake on the west coast of India in Surat District. The environs surrounding the lake at Ukai admeasuring 240 sq. miles provides an excellent setting for water sports, recreational activities etc., Similar

facilities can also be set up along the long sea-coast, beautiful beaches, various dams and lakes etc. It is, therefore, proposed to develop Hill No. 4 at Ukai lake where necessary basic infrastructure will be provided. Similarly, basic infrastructure and tourist facilities on periphery of proposed four ponds along the Narmada dam will be planned at an estimated cost of Rs. 20.00 lakhs during the Seventh Plan.

Ropeways :

7.4.4.8. It is proposed to provide infrastructure for ropeways at the hill temples of Pavagadh, Girnar, etc., for the convenience of a large number of tourists who visit such places. For this purpose, a sum of Rs. 15.00 lakhs is provided in the Seventh Plan.

District level Tourists Centres

7.4.4.9. In the Gujarat places of local importance abound in various Districts towns/villages. To develop these places, Government has prepared a scheme to provide 50% assistance to local bodies, for development of such places for which Rs. 25.00 lakhs have been provided in the Seventh Five Year Plan.

Tourist Publicity

7.4.4.10. Gujarat has a number of tourist centres and famous pilgrim places having a lot of tourist potential for development. These centres require publicity within and outside India through various media. Video tapes and films on tourism are proposed to be produced. A major portion of the publicity material consists of attractive colourful folders, brochures, booklets, maps, guide books, picture postcards, posters etc.

7.4.4.11. Publicity through other media like hoardings, audio-visual programmes, exhibitions, films, etc., are proposed to be organised towards promotional efforts for development of Tourism in the State. These efforts would surely attract more and more foreign tourists to Gujarat. For these activities, an amount of Rs. 60.00 lakhs is provided in the Seventh Plan.

Other Programmes:

Opening of offices at Jaipur/Bangalore etc.

7.4.4.12 Tourist Information offices at Delhi, Madras, Calcutta, etc., are being opened. It is very necessary to have tourist information offices at Capitals of other States. During the Seventh Plan, it is proposed to open offices at Jaipur/Bangalore etc., for which a provision of Rs. 50.00 lakhs is provided in the Seventh Plan.

Guide Services and Training Institute

7.4.4.13 Various schemes under tourism are being implemented; the need for trained personnel is obvious. It will be necessary to train personnel working at each level in the field of tourism. The training in catering, hotel management and general management of tourist spots, etc., is proposed to be imparted. It is proposed to develop a Tourism Training Institute in the State during the Seventh Plan period, for which a provision of Rs. 15.00 lakhs is made.

Snacketaria

7.4.4.14. During the Seventh Five Year Plan snacketarias on highways as well as near pilgrim places like Dakor will be provided. Gujarat has long national highways as well as district roads, on which several tourist spots exist where no catering facility is available at present. As such 20 Snacketarias in the first instance will be opened at important places on such roads e.g. Dakor in Kheda District.

a famous pilgrim place where such type of facility will be provided. A sum of Rs. 15.00 lakhs has been provided in the Seventh Plan.

Exploring architecture and historical places lesser known in Gujarat

7.4.4.15 There are many places having architectural beauty and historical importance in Gujarat which are lesser known to the people. There is great scope to explore and develop tourist facilities at such places which can attract large number of domestic as well as facilities tourists. Places like Gop, Ghumli (Jamnagar), Polo Temple (Sabarkantha), Dutch Tomb (Surat), shaking Minarets at Delwada (Junagadh), etc., can be developed. A provision of Rs. 20.00 lakhs is made in the Seventh Five Year Plan for this purpose.

Cultural Tourism Cell

7.4.4.16 In Gujarat, fairs and festivals are held at various places round the year. A few fairs like Tarnetar, Chitra Vichitra, Madhavpur etc. have become very popular. Festivals like Navratri, Dipawali, Raksha-Bhandhan are also celebrated with gaiety. It is proposed, to provide facilities like lodging-boarding etc, at sites of such fairs and festivals. It is proposed to celebrate Tourist Week at the time of "Navratri" when national as well as international tourists can participate and witness the cultural dance festivals. It is also proposed to organise Inter-State conducted tours for youths so that youths of the State can take advantage of visiting other States and vice-versa. A sum of Rs. 25.00 lakhs is provided for this purpose in the Seventh Plan.

Grant-in-aid to Tourism Corporation of Gujarat Ltd.

7.4.4.17 Holiday homes and other assets which are transferred to T.C.G.L. are very old and hence require major additions and alterations involving heavy expenditure. Necessary provision has been made for the same. It is proposed to contribute to the Tourism Corporation of Gujarat Limited towards equity to enable it to carry out its programmes for implementing tourist projects for which a provision of Rs. 35.00 lakhs in the Seventh Plan.

Infrastructure facilities

7.4.4.18 During the plan period various schemes will be submitted to Department of Tourism, Govt. of India. It is proposed to construct a Kuba Huts complex at Enjar in Surendranagar District for the tourists visiting the wild Ass sanctuary. In all there will be 20 kubas with canteen and recreation facilities. The entire cost of civil works will be borne by the Government of India. while basic infrastructure like land, water supply and electricity, approach roads, compound wall, staff quarters etc. will be provided by the State Government. A provision of Rs. 20.00 lakhs is made in the Seventh Plan.

7.4.4.19 Gujarat has developed one hill station at Saputara in Dangs District. It is now proposed to develop another new hill station in the State after survey and selection of places like Jesor in Banaskantha District, Mulsomat in Bharuch District, Ratan Mahal in Panchmahals or any other suitable hill. It is proposed to provide infrastructure like land water supply, approach road, and other facility at such hills. An outlay of Rs. 12.00 lakhs has been provided for this purpose during the period of Seventh Plan 1985-90.

STATEMENT

Schemewise Outlays for the Seventh Five Year Plan 1985-90

(Rs. in lakhs)

Sr. No.	No. and Name of the Scheme	Outlay for 1985-90
1	2	3
1. TOURIST ACCOMMODATION		
1 TRS-1	Development of Sasan-Veraval Porbandar Complexes	30.00
2 TRS-2	Development of Ahmedabad complex	3.00
3 TRS-3	Development of Hot Springs and Picnic spots	10.00
4 TRS-4	Development of Holiday homes, Tourist Bungalows, Hotels, Motels and Ropeways	130.00
Sub-Total—1		173.00
2. TOURIST INFORMATION AND PUBLICITY		
5 TRS-5	Tourist Information and Publicity	60.00
Sub-Total—2		60.00
3. OTHER EXPENDITURE		
6 TRS-6	Cultural tours and inter state tours and development of tourist facilities	125.00
7 TRS-7	Share Capital to TCGL	35.00
8 TRS-8	Development of Infrastructure facilities	32.00
Sub-Total—3		192.00
GRAND TOTAL		425.00

8. SCIENTIFIC SERVICES AND RESEARCH

8.1 SCIENCE AND TECHNOLOGY

8.1.1 Introduction

8.1.1.1. The importance of the role of science and technology as an instrument of social and economic change has been recognised and hence the development of scientific and technological capability and its application has become an integral part of planning. Considering the diversity and dimensions of our problems of economic and social development, it is clear that massive application of science and technology has to be a necessary component of our plans in all sectors in order to find quicker and cheaper solutions and consequently science and technology has to be a vital input in all investments. In order to achieve this goal it is important to create appropriate instruments that would help policy formulation for science and technology.

8.1.1.2. The Government of India has emphasized the significance of (i) creation of Science and Technology Councils for the formulation of Science and Technology plans at the State level and (ii) setting up of organizational infrastructure for the implementation of plans and programmes. The area of concern has to be to consolidate and make the most effective use of existing infrastructure in science and technology and also to generate science consciousness and scientific temperament amongst people at large. It is in this context that the need for creating a Department and a Council of Science and Technology at the State level has been accepted.

8.1.1.3. The Department and the Council will act as nodal centres for identifying the S & T inputs required for achievement of the socio-economic objectives of the State in general and in particular for tackling the problems of backwardness, unemployment, alleviating poverty with special reference to the problems of rural areas and the underprivileged sections of the society such as scheduled castes, scheduled tribes, landless labourers, artisans, small and marginal farmers and women etc., while the Department of Science and Technology at the State level will be responsible for policy formulation, coordination with other Departments, problem identification and implementation of the appropriate solutions identified by the Council, preparing the Science and Technology Component of the annual plan in each sector, the council will be a forum for establishing and forging appropriate linkages between research laboratories, research in educational institutions, public sector undertakings, industry and user organizations/departments.

8.1.2. Programme for the Seventh Plan

8.1.2.1. An outlay of Rs. 450 lakhs is provided for Science and Technology in the Seventh Plan. This is for the first time that specific outlay is provided in the State Plan for the development of Science and technology. Uptill now, the expectation was that the Centre would carry out all that was necessary for Science and Technology and the states could derive benefits from central programmes. However, this could be for certain sectors where major work on a centralised basis finds appropriate application throughout the length and breadth of the country. But in many sectors utilising local resources, the state should provide scientific temper and technological back up to the implementation of the state and regional level programmes. With the specific outlay in the Seventh Plan, the broad features of the programmes are given in the subsequent paragraphs.

8.1.2.2. It would be appropriate if the facilities for science and technical education are considered against the backdrop of industrial development of the State after its formation in May, 1960.

8.1.2.3. Two decades ago, Gujarat ranked eighth among industrially developed States. Then its output was largely in the areas of cotton textiles and allied industries which accounted for 66%. The State has made rapid strides in industrial development since then and has achieved the second position in the country. The discovery of oil, gas and minerals has led to the development of chemical, fertiliser and petrochemical industries. The chief areas of activity are chemicals, petrochemicals, man made textiles, cement, sugar, ceramics engineering and electronics.

8.1.3. Institute of Science and Technology

8.1.3.1. The State is at an important stage of its development where the creation of new institutions and centres of excellence for giving the required thrust to further indigenous capability in areas relevant to the State's needs is indicated. The State Government appointed a committee in 1981 to examine the question of the need and scope of establishing an Institute of Science and Technology. The Committee recommended setting up of an Institute in order to be able to continue to maintain the dynamic industrial growth of the State in the context of the changing technological scene.

8.1.3.2. The Institute of Science and Technology is proposed to be developed as a centre of excellence. It will carry out basic and applied research in specific thrust areas that will have relevance to the industrial needs of the State. It will have training facilities for nurturing talent amongst scientists, engineers and technologists. The Institute will also adopt a multi-disciplinary format in its curriculum courses, providing the much needed integration of physical sciences, engineering and technology with social sciences and humanities.

The Institute will have the following characteristics.—

- (i) The Institute will be a national level centre of higher education.
- (ii) The Institute will offer courses in material sciences, engineering design and other appropriate fields of emerging technology and frontier areas.
- (iii) Emphasis will be laid on basic physical and bio-sciences.
- (iv) The Institute will mostly offer post-graduate courses. However, some undergraduate courses may also be conducted so as to utilise the resources of the institute.
- (v) The Institute will develop close liaison with industries, other institutions, research and defence organisations.

8.1.3.3. The Institute will need buildings for administration, library, laboratories, central workshop, seminar and Assembly halls etc. and residential buildings for students, research fellows, academic and support staff, Guest house etc; amenities

like canteen, students' activities centre, hospital, club, gymkhana etc. will also be developed.

8.1.3.4. It is proposed that the Institute would take measures to get funds from sources like endowment chairs, research projects sponsored by industries and organisations, attracting grants from D.S.T., S.I.R. and other national agencies, consultancy work etc. Provision of Rs. 155.00 lakhs is made for setting up the Institute in the Seventh Five Year Plan.

Establishment of Department of Science and Technology and formation of Council of Science and Technology

8.1.3.5. A separate division of Science and Technology has been setup in the Department of Education headed by a separate Secretary to function as a nodal agency for the review of Scientific and Technological policies in relation to the developmental objectives of the State's Five Year Plans to identify Science and Technology component in various major sectors of developmental activity, to give support for the development of appropriate technologies in different areas and to promote a wider understanding of science and technology and its role in rapid development. The division will be strengthened with additional staff during the Seventh Plan.

8.1.3.6. The State Council of Science and Technology is proposed to be established as an apex body registered as a society. The Council will be the catalyst to foster research in areas appropriate to the needs of the State, and to bring together the National laboratories, University Science and Technology Departments and research scientists in the State in the identification of problem areas and application of science and technology for their solution. The Council will act through sectoral panels and will be served by a full-time Science and Technology Secretariat of professional multi-disciplinary specialists.

8.1.3.7. The following shall be the broad objectives of the Department and the Council :—

- Preparation of Science and Technology plans
- Generation and dissemination of relevant technologies
- Promotion and coordination of scientific and technological research for the study and solution of region specific problems with more emphasis on application of technology rather than its development 'de novo'
- dissemination of knowledge about and popularization of science

A provision of Rs. 20 lakhs is made in the Seventh Plan for setting up the Department and the Council.

Other Programmes :

8.1.3.8. The other programmes proposed are :

(i) Funding of specific Science and Technology schemes including strengthening of existing State level institutions for research in specific problems of the region. A Provision of Rs. 40.00 lakhs is made in Seventh Five Year Plan for the programme.

(ii) Identifying and encouraging talented individuals to carry out research in National laboratories, State organisations and institutions in specific approved areas of interest identified by the State Council and Department of Science and Technology. A provision of Rs. 5.00 lakhs is made in the Seventh Plan for this purpose.

(iii) Establishment of Entrepreneurship Parks including promotion and support of entrepreneurship among persons having scientific and technological background. A provision of Rs. 10.00 lakhs is made in the Seventh Five Year Plan for this purpose.

(iv) Setting up of pilot plants and initiation of programmes of product development for the purpose of bringing useful laboratory research results to the stage of viable application. A provision of Rs. 50.00 lakhs is made in the Seventh Five Year Plan for the programme.

(v) Support, research and development of special programmes and projects of medical and health sector for the purpose of bringing benefits of research in medical and health field to the common people. A provision of Rs. 20.00 lakhs is made in the Seventh Five Year Plan for the purpose.

(vi) In order to popularise science and disseminate information on science and technology and to cultivate scientific temper and appreciation of the importance of science and technology in socio-economic development, specially among the young, the following steps are proposed to be taken :—

(a) Establishment of a Central Science Museum

(b) Establishment of Community Science Centres.

(c) Popularisation of Science, among the masses by exhibitions, Science Fairs Science yatras etc.

(d) Publication of literature providing knowledge pertaining to science and technology which can be understood by common people.

(e) Support programmes of dissemination of knowledge pertaining to science and technology through other medias of mass communication like Radio, Television, Films, etc.

(f) Help the centres and the teachers in the preparation of Science-kits and other audio-visual aids useful for spreading the understanding of Science and Technology. A provision of Rs. 50.00 lakhs is made in the Seventh Five Year Plan for these programmes.

(vii) Establishment of a Cell for evolution of National Natural Resources Management Systems.

Survey for identification of national natural resources is one of the most important requirements for economic development as valuable natural resources, if discovered and harnessed, will provide valuable resource input. It is, therefore, desirable that the Department of Science and Technology may coordinate the above activities as one of its active functions. A special cell within the Department, if created, may support the identified survey projects and co-ordinate the activities of Department of Space and other Departments, organisations and institutions of the Central and State Government in the State. The Department will also assist in establishment of centres and units for the purposes of survey in remote sensing operations. A provision of Rs. 100.00 lakhs is made in the Seventh Year Plan for this programme.

STATEMENT

SCIENCE AND TECHNOLOGY

Schemewise outlays for the Seventh Five Year Plan 1985-90

(Rs. in lakhs)

Sr. No.	No. and Name of the Scheme	Outlay Provided
1	2	3
1.	STP-1 Establishment of department of Science and Technology	20.00
2.	STP-2 Development of Science and Technology	40.00
3.	STP-3 Research and Support to individuals, institutions and laboratories	5.00
4.	STP-4 Establishment of entrepreneurship park and development of entrepreneurship based on Science and Technology.	10.00
5.	STP-5 Setting up of pilot plant including products development	50.00
6.	STP-6 Support for R and D on special problems of medical research and health	20.00
7.	STP-7 Establishment of Institute of Science and Technology	155.00
8.	STP-8 Popularisation of Science and dissemination of Scientific information	50.00
9.	STP-9 Establishment of Cell for evolution of national natural resources management system	100.00
	Total	450.00

8.2 ENVIRONMENT AND POLLUTION CONTROL

8.2.1. Introduction

8.2.1.1. The last few years have witnessed an increasing awareness and concern for environment in Gujarat. Some results have been achieved as a result of this concern, particularly in the field of control of industrial pollution through the introduction of sophisticated effluent treatment plants, social forestry and protection of endangered species of wild animals like the Asiatic Lion and Wild Ass. An aggressive and systematic effort is in progress to rectify the situation caused by denudation of forests, unhabited soil erosion, desertification, silting of great rivers, frequent floods, exodus of people from their country side and pollution of air and water.

Environmental Protection

8.2.1.2. Only through environmental protection is it possible to limit the impairment of the quality of water we use, the air we breathe and the land that sustains us. Many environmental problems arise from our attempts to develop for meeting the basic needs of growing population and for improving the standard of living. Developmental effort lead to industrialisation, urbanisation, overuse and depletion of natural resources and consequent destruction of the natural ecosystems which are actually the life support systems. It is necessary to attain development without destruction. In this process, the conservation of environment and ecology must receive the highest priority.

8.2.1.3. During the year 1981, a seminar on conservation strategy for Environment in Gujarat was held at Sasan Gir which was inaugurated by the late Prime Minister of India Mrs. Indira Gandhi. During this seminar wide ranging recommendations on land management, energy conservation, pollution control, irrigation and various other allied subjects connected with environment were made. Since then the State Environment Department has been making efforts in the direction of improving of environment with special reference to wild life and forests. However, the need for other aspects concerning environment cannot be overlooked.

8.2.2 Review of past performance

8.2.2.1. Although no specific plan provision for Environment and Ecology was made during the period 1951-52 to 1979-80, financial investments made on the following developmental activities undertaken during this period, in fact pertained to the field of environmental conservation.

1. Afforestation on new lands
2. Conservation and management of existing forests
3. Development of National Parks and Sanctuaries, Wildlife and Nature Conservation
4. Farm forestry, tree farming and planting of trees in community lands
5. Soil and water conservation programmes including reclamation of kotar lands
6. Development of Khar lands and prevention of salinity ingress
7. Development of grass lands, gauchers waste lands and fodder development.
8. Improved cattle management

9. Control of pollution
10. Development of alternative source of energy
11. Treatment of sewerage and solid works
12. Planned Urban Development
13. Pollution Control

8.2.2.2. During the Sixth Plan also no separate plan provision was made for Environment and Ecology up to 1983-84. In 1984-85, only a small amount of Rs. 5 lakhs was provided. However, the above activities were also undertaken during the Sixth Plan period. Moreover, the World Bank aided community forestry project was also undertaken during the Sixth Plan period.

8.2.3 Perspective and development

8.2.3.1 The long term objectives of conserving the environment and ecology are

- (i) Improvement in quality of life, and
- (ii) Creation of sustainable society through development without destruction

Following areas of environmental concern are identified :—

- (1) The problems related to water logging, salinity ingress, Kharlands and siltation of dams
- (2) Desertification and extension of desert along the borders of Kachchh and Rajasthan
- (3) The problems of denudation of hills, especially in the hilly tribal belt
- (4) The problems of ravine formation and its control (Kotar lands)
- (5) The problems of coastal management and conservation of eco-systems of coastal tracts
- (6) Conservation of coral mangrove ecosystem in the Gulf of Kachchh
- (7) Land use planning and industrial location policy
- (8) Improvement of urban settlements
- (9) Eco-development in the catchment, reservoir and command areas of important irrigation projects including Narmada Project
- (10) Development of decentralised rural energy sources
- (11) Development of gauchars and waste lands
- (12) Environmental awareness education
- (13) Environmental research, analysis and surveys

8.2.3.2 Considering the importance of protection of environment, the following objectives have been kept in view while formulating the programmes for the Seventh Five Year Plan.

- (1) Creating infrastructure for environmental impact assessment and monitoring in the form of Cells at the State and district levels which will be the for-runner of a field level department of environment
- (2) Creating infrastructural facilities for environmental education and research and conducting environmental education programmes on a massive scale

(3) Orientation and training of officers and staff of various departments and recruitment and training of environmentalists

(4) Setting up of State Land Use Board, nature parks, etc.

(5) Financial support to voluntary agencies and organisations including the GEER Foundation.

(6) Status survey of various natural resources like land, coastal areas, flora and fauna and various problems like air and water pollution, salinity ingress, problems of backward areas etc.

(7) Setting up of a computerised data bank on all aspects of environment

8.2.4. Programme for the Seventh Plan, 1985-90

8.2.4.1. An outlay of Rs. 154 lakhs is provided for the Seventh Plan, 1985-90 for the schemes under Environment, as detailed below.—

Creation of environmental cells at the State and district levels

8.2.4.2. It is proposed to establish technical cells at the State level and district level to deal with environmental aspects. The Cells will be manned by highly motivated and technically competent persons capable of developing multi-disciplinary and holistic approach towards environmental issues and problems. An outlay of Rs. 27 lakhs is provided for this scheme for the Seventh Plan, 1985-90

Environment Education

8.2.4.3. Due to increasing population, rapid industrialisation and urbanisation, environmental problems are being aggravated. The problems of pollution, soil erosion, desertification etc., which are of environmental origin cannot be solved effectively without the participation of the people from all of walks of life and all sections of the society. A mass educational drive for environmental awareness is necessary for improving the quality of life. The activities proposed to be undertaken under this scheme are (1) Organisation of environmental awareness camps at various levels at various locations, (2) Preparation of literature, material, exhibits, films, audio-visuals etc. for environmental education (3) purchase of equipment like cameras, projectors, VCRs, T. V. Sets including purchase of mobile units/vehicles, tents etc. (4) Establishment of infrastructural facilities like camping sites, sheds, huts, stores, projection rooms, photo laboratories etc. as suitable nucleus centres. An outlay of Rs. 40 lakhs has been provided for this purpose.

Grant-in-aid to the GEER Foundation

8.2.4.4. The Gujarat Ecological Education and Research Foundation has been set up in September, 1982. Implementation of the scheme for setting up a natural History Museum at Gandhinagar has been entrusted to this foundation from 1st February, 1983. This foundation has also taken over the management and the development of the Hingolghadh Nature Education Sanctuary as well as running of the Nature Education Camps in this Sanctuary. Other projects such as ecological survey of Gujarat as well as setting up of a Nature Park at Dharoi area also are under contemplation by this foundation. To enable GEER Foundation to carry out various projects, it is proposed to give grant-in-aid of Rs. 35 lakhs to this Foundation in the Seventh Plan, 1985-90.

Setting up of Nature Parks at different locations in the State

8.2.4.5. For the preservation of natural eco-systems and for conserving the genetic diversity, it is necessary to set up extensive nature reserves all over the State. Moreover, it is also necessary to educate people regarding the usefulness of such nature reserves for the scientific study of nature and the role of natural eco-systems in improving the quality of human life and as life support system for all forms of living organisms. In order to demonstrate the value of the natural eco-systems to all sections of population and especially the growing generation, it is necessary to set up nature parks at different locations in the State where people and students could have an exposure to nature. It would be more profitable if such nature parks are located close to the cities and towns. It is proposed to locate and establish ten nature parks in different areas like alluvial plains, tribal hilly areas, Kachchh, Saurashtra, desert border, coastal tracts etc., so that the possibilities of reviving the natural eco-systems in such diverse biogeoclimatic locations could be explored. Such nature parks will be able to create favourable public opinion towards preservation of numerous large, well sited reserves all over the State. An outlay of Rs. 20 lakhs is provided for the Seventh Plan, 1985-90 for the purpose.

Development of educational material, publicity and support to non-Government Organisation

8.2.4.6. In Gujarat, there are several voluntary agencies/organisations which are engaged in the work of environmental conservation and environmental education. Some of these are the wild life preservation societies, the Prakruti Mandals, Nature Lovers' Association, WWF-India Branches, VIKSAT at Ahmedabad, Hingolghadh Nature Education Trust etc. Most of such voluntary bodies do not have basic facilities like binoculars, cameras etc. It is proposed to grant financial support to such agencies and organisations in the State so that they can effectively carry out the work in the field of environmental conservation and education. This will have far reaching effect in creating a favourable climate for protection of environment. An outlay of Rs. 15 lakhs is provided for the Seventh Plan, 1985-90 for this purpose.

Detailed survey and analysis of the status of environment through Government/semi Government and other agencies.

8.2.4.7. Detailed surveys and analysis of the status of environment in Gujarat has not been carried out so far. Without proper information on the subject it is not possible to plan measures for the projection of environment in the State. It is, therefore, necessary to carry out surveys on the status of land, coastal areas, offshore marine and gulf areas, natural flora and fauna, air pollution, water pollution, salinity, backward areas etc. This work has to be entrusted to semi-Government and other agencies which may have necessary experience and expertise in the field. It is proposed to provide Rs. 8 lakhs for this scheme for the Seventh Plan 1985-90.

Computerised data on all aspects of Environment

8.2.4.8. For proper appreciation of environmental problems and for planning solution to such problems., it is necessary to collect and store data and information of different fields of environment like ecology, biology, geology, soil science, environmental engineering, forestry, agriculture, climatology, meteorology, etc. For handling and processing such diverse kind of data generated in different fields and for proper interpretation there of a computerised data bank is essential. For this purpose it is proposed to Rs. 4 lakhs have been provided for the Seventh Plan, 1985-90.

Training of officers and staff in the field of environmental planning, conservation, education, extension and monitoring.

8.2.4.9. The environmental problems caused by fast depletion of non-renewable and renewable natural resources of the State on account of increasing human popula-

tion, desertification, industrialisation and urbanisation are required to be dealt with immediately. For this, it will be necessary to impart necessary technical and specialised training to the officers and staff of various Government departments so that they can effectively carry out the functions of environmental planning, environmental conservation, pollution control as well as environmental education, extension and monitoring. Training facilities available within and outside the country will be utilised for this purpose. Until own training capabilities are built up in the various areas of environmental sciences, such training as proposed under this scheme is of crucial importance. It is proposed to cover atleast 1000 officers and staff members of various government departments under this scheme during the Seventh Plan for which an outlay of Rs. 5 lakhs is provided.

8.2.5. Water Pollution Control

Introduction

8.2.5.1. To meet the demand and needs of growing population and to tackle the problems associated with the growth, India has chosen the path of industrialisation, on the lines of many other Western countries. Gujarat has also contributed for the development needs of the country, with the result that Gujarat is one of the highly industrialised States in India. With the development of industries and population growth, the problem of pollution of natural resources of water, air and soil has also increased. To promote better environment and quality of life and to cater to the needs of the people of the State at large, the Gujarat Water and Air Pollution Control Board has been constituted under Section 4 of the Water (Prevention and Control of Pollution) Act, 1974. The functions of the Board *inter alia* include preparation of comprehensive programme for prevention, control and abatement of pollution of streams and wells, collection and dissemination of information relating to water pollution and participation in investigation and research relating to programme of water pollution control or abatement thereof.

8.2.5.2. As a prelude to the above, an inventory of water based industries of the State was prepared in 1977, which showed that out of about 34,000 industries, about 3000 to 4000 were water intensive. These industries are scattered all over the State and mainly along Ahmedabad. Vapi corridor and generally in GIDC estates. For implementation of the Act and for carrying out the functions of the Board, four Regional Offices with complete laboratory facilities have been established at Ahmedabad, Vadodara, Surat and Rajkot with head office at Gandhinagar. The Board also conducted water quality monitoring surveys for the State's major rivers and minor rivers of Southern Gujarat, Environmental Impact, Assessment Surveys for estuarine sea water were also carried out.

8.2.6. Review of progress

8.2.6.1. During the Sixth Plan period, periodic monitoring of the industries to whom consents were issued was carried out and the industries were persuaded to put up treatment plants to bring the quality of their effluent to the standard stipulated by the Board.

8.2.6.2. The construction of 55 km. long effluent channel upto the Gulf of Khambhat for catering to the needs of large scale chemical and petro-chemical industries located in and around Vadodara with carrying capacity of 32 MGD of effluents is a major land-mark in water pollution control measures in the Sixth Five Year Plan. With the commissioning of this effluent channel on 26th February, 1983, the ecology of Mini and Mahi rivers has been saved from deterioration and riparian rights of the downstream users have been protected. Another important step to protect the quality of waters of River Bhadar in the downstream of Jetpur region due to the discharge of effluent by large number of small scale textile

processing units around Jetpur is the laying of pipeline with contribution from these industries for carrying the effluents of these industries to be discharged on the opposite bank of River Bhadar. Similar collective systems in respect of Vapi, Ankleshwar, Naroda, Vatva and Odhav areas are under consideration.

8.2.6.3. The Air (Prevention and Control of Pollution) Act, 1981 was enacted by the Government of India and came into effect from 29th March, 1981. Necessary formalities of framing rules and declaring zones etc. have since been finalised. The major contribution to air pollution are thermal power stations, cement plants, textile mills, petroleum refineries and chemicals and automobile emissions. Necessary consents to these industries will have to be issued now. As a base-line for the implementation of the Air Act, 1981, some preliminary ambient air quality surveys have been carried out for Surat, Vadodara, Ahmedabad and Gandhinagar with a view to ascertain the present status of air quality. Basic data regarding the air pollution potential involved with the industries related to fuel and raw material consumption and type of manufacture were compiled along with control measures taken by the industries.

8.2.6.4. It is proposed to lay more stress on following items during the Seventh Plan period.

- (a) Investigations and research relating to problems of water pollution and prevention, control or abatement of water pollution
- (b) Evaluation of economical and reliable treatment methods having regard to of soil, climate and water conditions
- (c) Evolving methods of utilisation of treated wastewater for agriculture.
- (d) Evolving efficient methods of disposal & of effluents in the critical condition like dry and water scant streams

8.2.7. Approach and Strategy

8.2.7.1. Gujarat is one of the well advanced and industrialised States in India. There are more than 58,000 industries of all sizes in Gujarat, out of which about 5000 or more are water-based industries posing pollution problems. The Board has already processed consent applications of about 3000 industries, out of which 2500 industries have already been granted consent to discharge their effluents subject to conditions for pollution control. In addition to granting consents to industries for discharge of their effluents, the Board also processes applications for non-agriculture use of land, thereby advising the revenue department authorities for non-agricultural conversion for industrial purposes. New industries to be established in Gujarat requiring finance from financial institutions have to get NOC from the Board in order to get finance.

8.2.7.2. Even though the Water Act, has been in force for about last 10 years, the awareness of anti-pollution measures have not reached every nook and corner of the State as well as every individual. Unless each and every citizen of Gujarat knows that pollution control measures should be part of their special obligation, no organisation even with the strongest teeth of the Act can play an effective role. To stimulate the awareness, mass education will be necessary by way of T. V. programmes, slide-shows and other audio-visual programmes. For the Board to be effective and also to take care of air pollution control activities, the present set up of four regional laboratories will have to be increased to total 6 regional offices/laboratories all over the State. These regional offices/laboratories will be assisted by sub-regional offices/laboratories. These regional offices and sub-regional offices will be located at suitable places in Gujarat. A Central Laboratory as a part of

environmental and ecological complex, will have to be created with buildings for the head-quarter offices and Central Laboratory. This Central Laboratory will be a multi-functional laboratory with R & D facilities so as to have pilot plants and bench mark studies of pollution control devices and methods.

8.2.7.3. New environmental pollution areas like solid-wastes, land application of sewage effluents, recycling of wastes, bio-gas demonstration plants, low cost sanitation etc., will be taken care of at the Central Laboratory by way of research and development. It may be pointed out that the Board is a regulatory organisation and cannot act in a big way except for demonstration plants and pilot plant to guide local bodies and industries for setting up their pollution control measures.

8.2.7.4. At the village level, the efforts of environmental pollution control require to be made more vigorously. While carrying out the demonstrations and audio-visual education, it will be necessary to adopt a few villages which can be upgraded from environmental pollution control aspects to the desired level of sanitation to serve as the model villages.

8.2.8. Programme for the Seventh Five Year Plan 1985--90

8.2.8.1. Based on the above approach and strategy, the following programmes are envisaged :—

Strengthening the existing Regional offices and opening of new regional offices and sub-regional offices

8.2.8.2. If the Gujarat Water and Air Pollution Control Board is to function effectively as per the Water and Air Pollution Control Act, the following functions are to be carried out:

1. Consent application processing and review
2. Inspection and vigilance of the proposals
3. Technical evaluation of the proposals
4. Classification and zoning of water
5. Report and control of accidental and episodal pollution
6. Monitoring of water and air polluting industries
7. Data collection and compilation
8. Processing cess assessment cases
9. Verification of sites and locations for the new coming industries
10. Clearance of No Objection Certificates
11. Attending the complaints received from public
12. Coordination with various district level authorities
13. Information and public relations
14. To propogate the information for public awareness by various means
15. Conducting the prosecution of legal cases

8.2.8.3. The present regional offices situated at Ahmedabad, Vadodara, Surat and Rajkot require to be strengthened. Looking to the large number of industries, local bodies etc., which increase in numbers year by year, it is essential that four more Regional offices should be opened in various industrial districts. For this purpose an outlay of Rs. 90 lakhs has been provided. in the seventh plan.

Setting up of the Central Laboratory

8.2.8.4. It is proposed to set up a Central Laboratory in the context of the following functions :

1. Development and management of Central and Regional Laboratory
2. Environmental water and air monitoring
3. Surveillance of trade and other effluents
4. To evaluate the treatment plants performance study and systematic investigation under research and development
5. Classification and zoning of the waters
6. Laying standards and criteria for water and air
7. Data collection and compilation and demonstration
8. Statistical analysis of data
9. Demarcation of pollution zones/areas
10. Library and audio-visual system
11. Establishing monitoring net-work in different centres and industrial estates
12. To coordinate national and international level programmes
13. To coordinate with the Central Board and carrying out different process and treatment plant evaluation studies
14. Preparing planning strategy and policy for water and air pollution control
15. Training of staff

8.2.8.5. To carry out the above functions, the Board will require a substantial amount of money for the space, staff and instruments to develop the centrally located laboratories. Enough space should be made available so that the demonstration plants R & D and other activities including training of manpower through short-term courses can be conducted effectively. It is proposed that sizable land should be made available in Gandhinagar or Ahmedabad. It is likely that solid waste management law may also be come soon and as such sufficient are shall have to be introduced earmarked. The scheme also environments imparation of training and development. An outlay of Rs. 106 lakhs has been provided for the Seventh Plan.

STATEMENT

Schemewise outlays for the Seventh Five Year Plan, 1985-90

(Rs. in lakhs)

Sr. No.	No. and Name of the scheme	Outlay for 1985-90
1	2	3
I. ENVIRONMENT :		
1.	EPC-1 Creation of Environment Cell at State and District Level	27.00
2.	EPC-2 Environment Education	40.00
3.	EPC-3 Grant-in-aid to "GEER" Foundation	35.00
4.	EPC-4 Setting up of Nature Parks in the State	20.00
5.	EPC-5 Development of Educational Material, Publicity and support to Non-Government organizations	15.00
6.	EPC-6 Detailed Surveys and analysis of the States of Environment through Government/Semi-Government and other agencies	8.00
7.	EPC-7 Computerised data bank on all aspects of Environment	4.00
8.	EPC-8 Training of officers and staff in the field of Environmental Planning, Conservation, Education, Extension & Monitoring	5.00
Sub-Total (Environment):		154.00
II. WATER POLLUTION CONTROL		
9.	EPC-9 Strengthening existing offices and opening of new Sub-regional offices	90.00
10.	EPC-10 Setting up of Central Laboratory	106.00
Sub-Total (Water Pollution Control) :		196.00
Grand Total (I+II) :		350.00

9. SOCIAL AND COMMUNITY SERVICES

1. One of the primary tasks of the Seventh Plan is the harnessing of the country's abundant human resources and improving their capabilities for development with equity. It is necessary to pay greater attention to improvement in the quality of education at all levels. Training in intermediate skills would need to be undertaken on a large scale for the provision of various services, including primary health services. Provision of clean drinking water and clearance of slums and provision of housing for the poor, both in rural and urban areas, have to be given greater priority in the interests of general welfare as well as productivity. Such extension of education, training in skills and health facilities to rural and urban poor offers most important avenue for reducing social and economic inequalities. The programmes for the welfare of backward classes and other weaker sections and particularly scheduled castes and scheduled tribes need to be expanded. The programmes for the welfare of children and women also need to be given added impetus.

2. An outlay of Rs. 900 crores for the Seventh Five Year Plan, 1985-90 has been provided for various Sectors/sub-Sectors under Social and Community Services as detailed below :—

(Rs. in crores)

Sr. No.	Sector/sub-Sector	Outlay for Seventh Five Year Plan 1985-90
1	2	3
1.	General Education	86.76
2.	Technical Education	18.20
3.	Medical and Public Health	103.14
4.	Sewerage and Water Supply	168.66
5.	Housing	164.42
6.	Urban Development	97.68
7.	Captial Project	33.37
8.	Information and Publicity	7.58
9.	Labour and Labour Welfare	49.11
10.	Welfare of Scheduled Castes/Scheduled Tribes and other Backward Classes	115.27
11.	Social Welfare	7.28
12.	Nutrition	45.50
13.	Social Inputs	3.03
Total		900.00

3. An outline of the programmes is given in the subsequent paragraphs.

9.1. GENERAL EDUCATION

9.1.1 Introduction

9.1.1.1. The importance of education in the State and the national economy needs no mention. Provision of education facilities as an essential social infrastructure is necessary to supplement the economic infrastructure created through various development plans. Education holds the key to alround development of the society and the State. The State Government has always accorded a very high priority for the development of education. Maximum importance has been given to the development of Primary Educaion which forms the base of the educational pyramid.

9.1.1.2. The growth of Secondary, Higher Secondary and College Education has to keep pace with the growth of basic primary education and necessary linkages for the growing demand for education in a fast developing society have to be maintained. The development of education policy in Gujarat has been in tune with the needs of a growing economy. The State Government has recognised the need of backward areas, and therefore, special efforts are being made to encourage secondary and higher education in remote and backward areas.

9.1.1.3. During the period of Sixth Plan, 1980-85, emphasis has been laid on equalising education opportunities and making education relevant. The main thrust continued on the following two areas :

- (1) Universalisation of Elementary Education
- (2) Vocationalisation of Education

9.1.1.4. Elementary Education and adult education have been included in the Minimum Needs Programme and have been accorded priority. Secondary education has been given a new orientation with emphasis on regulating the expansion of Secondary Schools and their vocationalisation. University Education has been simultaneously linked with it. This Sub-sector also covers other programmes like development of libraries, sports and youth welfare activities, archeology, archives, museum and development of languages.

9.1.2. Review of Sixth Plan

Primary Education

9.1.2.1. Primary Education including Adult Education forms part of the Minimum Needs Programme. At the end of the Sixth Plan, enrolment in the age group 6-11 would be 48.27 lakh children and in the age group 11-14 would be 14.53 lakh children. In all, 62.80 lakh children would be enrolled. Overall achievement would be 94%.

9.1.2.2. Against the total requirement of 43,000 Class rooms only 6,000 class rooms would be constructed having a backlog of 37,000 class rooms at the end of 1984-85. There were 7500 single teacher schools in the State in the beginning of the Sixth Plan. 4500 such schools would be converted into two teacher schools by the end of 1984-85, leaving a balance of 3000 single teacher schools.

9.1.2.3. 6000 Schools having Std. V-VII would be provided with Science Kit Boxes by the end of the Sixth Plan. In tribal area, children are supplied with sets of text books and uniforms. Parents belonging to primitive groups are given special incentives so that they send their children to school. Through Non-Formal Education, 0.91 lakh children of the age group 6-14 were benefitted.

Secondary Education

9.1.2.4. Secondary Education expanded rapidly during the Sixth Five Year Plan, 1980-85. This expansion was particularly notable in districts like Mahesana, Panch

Mahals and Sabar Kantha, the last two being predominantly tribal districts. At the end of 1979-80, the number of secondary schools in the State was 3098, which included 858 higher secondary schools. During the period of Sixth Five Year Plan, 1006 new secondary schools including 558 new higher secondary schools were added. At the end of the Sixth Plan period, Gujarat State had 4104 secondary schools, which included 1416 higher secondary schools. During the Sixth Plan, 163 secondary schools and 65 higher secondary schools and six Government Secondary Schools were started in the tribal areas. At the end off Sixth Five Year Plan, the total number of secondary schools in the tribal areas was 603 which included 152 higher secondary schools.

9.1.2.5. Considerable importance was given to in-service training to secondary school teachers. Against the target of 4000 teachers during the Sixth Plan, in-service training was given to 7900 teachers. Under the scheme of improvement of science facilities in secondary schools, 120 secondary schools were covered during the Sixth plan period. Under the scheme of supplying free sets of text books to students coming from weaker sections of the society, 15,786 sets costing Rs. 31.50 lakhs were supplied during the Sixth Five Year Plan.

9.1.2.6. During the Sixth Five Year Plan, 59 higher secondary schools were allowed to start vocational stream at the +2 stage. The number of students in vocational stream during the year 1984-85 was 3441.

University and Higher Education

9.1.2.7. In higher education, the main thrust of the Sixth Plan was to give matching assistance to Universities for their developmental programmes approved and financed by University Grants Commission and State Government on a sharing basis. During the Sixth Five Year Plan, Rs. 215.06 lakhs was given to 5 Universities. The State Government gave financial assistance of Rs. 151.47 lakhs for the development of Bhavnagar University which was established in 1978-79. With this, the State Government has fulfilled its commitment to UGC developmental assistance.

9.1.2.8. During the Sixth Plan Period, Government colleges at Junagadh and Gandhinagar were bifurcated as the number of students in these colleges had become very large. The State Government also started a new commerce college in the tribal district of Dangs where no facilities of college education were available.

9.1.2.9. The State Government started a college for Physical Education at Mangrol in Junagadh district in the year 1984-85. There was no other college for Physical Education in Saurashtra region and the starting of this college has fulfilled a long standing need of this region. The college has started with a Certificate Course. A Diploma Course will be introduced during the Seventh Plan.

9.1.3. Strategy of the Seventh Plan

Primary Education

9.1.3.1. Primary Education is a part of Minimum Needs Programme. The national norm for the Seventh Plan, 1985-90 is 100% enrolment of children of the age group 6-14 by 1990. However, it is envisaged to achieve 94% enrolment of the children in the age group 6-14 by the end of the Seventh Plan. For this 20.66 lakh additional children would be enrolled, of which 4.00 lakh children would be covered under non-formal education. Additional 26,650 teachers are proposed to be appointed during the Seventh Plan on a fixed stipend of Rs. 325 p. m. for first two years.

9.1.3.2. The programme of construction of class rooms would be continued and 300 class rooms and 100 tents would be constructed during the Seventh Plan. A provision of quarters for teachers is also made. 50 primary schools in addition to 10 in Gandhinagar would be opened. 3,500 single teacher schools are proposed to be converted into two teacher schools. 50 lakh students are proposed to be supplied with free sets of text books. 8 lakh pupils including 2 lakh girl students would be given two pairs of uniforms each. The schemes of special incentives to parents of primitive groups, financial assistance to SC/ST/OBC students, coaching to weak students would be continued with the same tempo in the Seventh Plan.

9.1.3.3. 24 lakh illiterate adults between 15-35 age group would be covered under Adult Education Programme during Seventh Plan period.

Secondary Education

9.1.3.4. Keeping in view the rapid expansion of secondary education during the Sixth plan period and the net average increase in students admission every year, it is proposed to start 500 secondary schools during the Seventh Five Year Plan. In addition, it is proposed to add 350 new classes to existing schools. It is envisaged that 1275 new teachers will be required to be appointed for the new schools and classes. The estimated expenditure for payment of salary of this teachers will be Rs. 400.00 lakhs.

9.1.3.5. Special attention would be paid during the Seventh Plan period for opening of new schools in tribal and remote areas of the State which have not benefited from the rapid expansion of secondary education. It is proposed to open 125 new schools in tribal areas during Seventh Plan period.

9.1.3.6. Existing schemes for distribution of text books to economically weaker students, financial assistance to schools for improving laboratory facilities and in-service training to teachers will be continued during the Seventh five year Plan. A scheme for giving prizes to the best Secondary Schools in each district have been introduced in the Seventh Five Year Plan. A scheme for granting financial assistance to schools which purchase computers as a part of computer literacy project has also been proposed.

Higher Secondary Education

9.1.3.7. It is proposed to permit 100 secondary schools to start higher secondary classes during the Seventh Five Year Plan. It is also proposed to start 200 additional sections in existing higher secondary schools. Opening of new schools and sections will require appointment of 750 teachers for which a provision of Rs. 300 lakhs has been made. Priority will be given to those secondary schools which want to start science and vocational stream at + 2 level.

9.1.3.8. The schemes proposed for improvement of secondary education will also be made applicable to higher secondary schools. Higher Secondary Schools will receive higher financial assistance from improvement of science facilities and for performance award in best school competition.

9.1.3.9. Keeping in view the experience of slow progress of vocational education during the Sixth plan, it is proposed to make several changes in the syllabus, grant pattern and opportunities for vertical integration of vocational education at higher secondary stage. The State Government had appointed two committees to suggest various measures for popularising vocational education. The reports of these committees are now available. Changes in the vocational pattern would be made on the basis of these reports.

Higher Education

9.1.3.10. It is decided to start one new University for the North Gujarat districts of Banas Kantha, Sabar Kantha and Mahesana. In higher education, the policy of Government will be to give matching assistance for development schemes approved by UGC. Emphasis will be given to the introduction of courses on management, computer science and other professional subjects. It is proposed to create a Board for higher education to regulate, control and coordinate Programmes of higher education in Gujarat during the Seventh Plan period.

Games and Youth Welfare

9.1.3.11. The subject of Physical Education is voluntary at the S. S. C. stage and it is being taught at the Higher Education stage is Std. XI & XII. Under the scheme, Grant-in-Aid is proposed to be paid at the rate of Rs. 1500 against management contribution of Rs. 500 to 950/- to schools in the State. Schools in Tribal areas will be exempted from the management contribution.

9.1.3.12. There is one Government Physical Education College at Mangrol (District Junagadh). Certificate courses are being conducted in this college (C. P. Ed.) It is proposed to strengthen this college at Mangrol by introducing D. P. Ed., course with effect from July, 1985. About 450 students will be benefitted under the scheme.

9.1.3.13. National Service Scheme (NSS) is partially centrally sponsored scheme which is introduced in University/Colleges since 1969. The N.S.S. provides good opportunity to the college students to serve the community. Government of India has fixed 26000 students for regular NSS and 13000 students for special NSS programme. The share between Central and State Government for the expenditure is on the basis of 7:5. The NSS grants are proposed to be given to the universities during the period of Seventh Plan.

9.1.3.14. Provision of educational facilities at all levels of life as an essential social infrastructure is necessary to supplement the economic infrastructure created through various development plans.

9.1.3.15. The development programmes in the Seventh Plan, 1985-90 aim at equalising education opportunities and making education relevant. The main thrust would be on the following two areas :—

- (1) Universalisation of Elementary Education.
- (2) Vocationalisation of Education.

9.1.4. Programme for Seventh Plan :

9.1.4.1. An outlay of Rs. 86.76 crores is provided for General Education for the Seventh Five Year Plan, 1985-90. The broad break-up of the outlay is as under :—
(Rs. in lakhs)

Sr. No.	Minor Heads	Outlay
1	2	3
1	Primary Education-MNP	
	(i) Elementary Education	4863.45
	(ii) Teachers' Training	273.15
	(iii) Special Education	700.40
	Adult-Education	

1	2	3
2	Secondary & Higher Education	
(i)	Secondary Education	657.00
(ii)	Higher Secondary including vocational Education	410.00
(iii)	Teachers Education	10.00
(iv)	University Education	397.00
(v)	Physical Education	60.00
3	Sports & Youth Services	272.00
4	Art & Culture	593.00
5	Development of Languages	225.00
6	Nucleus Budget	215.00
Total :		8676.00

Primary Education

9.1.4.2. The Primary Education including Adult education forms part of Minimum Needs Programme and has been given the highest priority. It is also included in the revised Twenty Point Programme.

9.1.4.3. The Minimum Needs Programme aims at establishing a network of certain services based on the criteria of uniformity and quality throughout the Country. The programmes taken up under the Minimum Needs Programme are given priority in allocation of funds during the Seventh Plan, 1985-90. The M.N.P. is expected to provide essential infrastructure to the weaker sections of society and the people in backward and remote areas.

9.1.4.4. An outlay of Rs. 5837.00 lakhs (Rs. 5136.60 lakhs for Elementary Education and Rs. 700.40 lakhs for Adult Education) is provided in the Seventh Plan for the Minimum Needs Programme. The broad outline of the Programme is as under :—

Appointment of Additional Primary Teachers for Additional Enrolment

9.1.4.5. The position of enrolment in the age group 6--11 and 11--14 at the end of 1984-85 would be 48.27 lakhs and 14.53 lakhs respectively; the details are as under :—

(figures in '000')

Agr group	Boys	Girls	Total
6—11	2759 (126%)	2068 (101%)	4827 (114%)
11-14	902 (71%)	551 (47%)	1453 (60%)
6—14	3661 (107%)	2619 (81%)	6280 (94%)

9.1.4.6. The national norm for enrolment under the MNP for the Seventh Five Year Plan, 1985-90 is 100% for the age group 6-14.

9.1.4.7. It is targetted to achieve 98% and 73% enrolment for the age group 6-11 and 11-14 respectively at the end of Seventh Plan, 1985-90. Overall coverage will be 94% in the entire age group 6-14 by 1989-90. It is expected that 20.66 lakh additional children will be enrolled during the Seventh Plan 1985-90, of which 4.00 lakh pupils are proposed to be covered under the scheme of non-formal education. To man the remaining 16.66 lakh pupils under formal education system, 25,650 teachers will be required as per norms. It is proposed to appoint 26650 new additional teachers during the Seventh Five Year Plan 1985-90. Of these, 9000 teachers will be appointed in Tribal Area. It is proposed to appoint new teachers on stipendary basis of Rs. 325/- p.m. for first 2 Years. For the Seventh Five Year Plan, an outlay of Rs. 2689.30 lakhs is provided.

Construction of Class Rooms

9.1.4.8. It is very important to provide physical facilities for universalisation of elementary education. It is necessary to take up in a big way the programme of construction of class rooms. The requirement of class rooms is taken on the basis of one teacher one room.

9.1.4.9. The total requirement at the end of the Sixth Plan was 43000 rooms, against which 8800 rooms were proposed and targetted to be constructed in a phased manner. Out of the required 43000 class rooms, about 6,000 class rooms have been constructed. However 37,000 class rooms will remain to be constructed as backlog at the end of 1984-85. Further this 7,400 teachers have been sanctioned during Sixth Plan over and above the target of the Sixth Plan period. It is targetted to appoint 26650 teachers during the period of Seventh Plan on the basis of additional enrolment. Thus, in all, 71050 classrooms will be required at the end of the Seventh Plan. This programme will be undertaken in a phased manner. Under this programme, 300 classrooms and 100 tent classrooms are proposed to be constructed during the Seventh Plan, of which 150 classrooms and 100 tent class rooms will be in Tribal Area. An outlay of Rs. 50.00 lakhs has been provided for 1985-90. The pattern for construction of class rooms is as under :—

- | | | |
|-------|---------------------|---|
| (i) | In Tribal Area | The rate will be Rs. 21,000/- or at 70% of the S.O.R. of Type design whichever is less. |
| (ii) | In Tribal Area | The full amount of Rs. 500/- per tent class room. |
| (iii) | In Non-Tribal Area. | Rs. 12,000/- or at 40% of the S.O.R. of type of design. |

Opening of New Primary Schools

9.1.4.10. There are 1836 villages having population upto 200 where there is no schooling facility. It is proposed to cover 500 villages having population less than 200 within a distance of 1.5 K.M. for which an outlay Rs. 10.00 lakhs is provided for the Seventh Plan, 1985-90.

9.1.4.11. It is proposed to open 10 new schools during Seventh Plan in the Capital city of Gandhinagar. An outlay of Rs. 2.00 lakhs is provided in the Seventh Plan.

Conversion of single teacher schools into two teachers schools

9.1.4.12. There were 7500 single teacher schools in the State in the beginning of the Sixth Plan. By the end of the Sixth Plan, 4500 schools will be covered leaving a backlog of 3000 single teacher schools. Moreover, 500 new single teacher schools will be opened during the Seventh Plan. Thus, 3500 schools are required to be covered during the Seventh Plan of which 1500 schools will be covered in the tribal area. These schools will be covered by appointing second teacher on fixed stipend of Rs. 325 p.m. for first two years for which an outlay Rs. 751.87 lakhs is provided for the Seventh Plan, 1985-90.

Physical facilities

9.1.4.13. The primary schools which are lacking in physical facilities such as drinking water, sanitation, electrification, etc., are given grant-in-aid. But most of the primary schools still do not have these facilities and therefore need financial assistance. It is proposed to increase the rate of financial assistance from Rs. 1000/- to Rs. 5000/- during the Seventh Plan to cover 2000 schools for which an outlay of Rs. 100.00 lakhs is provided for the Seventh Plan, 1985-90.

Science Kit Boxes

9.1.4.14. Under this scheme, out of 12,000 schools having Standards V-VII, 6000 schools have been covered during the Sixth Plan. At the end of the Sixth Plan, 6000 schools still remain to be covered. It has been proposed to supply science kit boxes for each of standards V, VI and VII during the Seventh Plan. An amount of Rs. 50.00 lakhs is provided for 5000 kit boxes during the Seventh Plan, 1985-90.

Incentives to children of Tribal Area

9.1.4.15. Literacy rate in the tribal area, as compared to that in non-tribal area is very low. Due to poverty, tribal people are reluctant to send their children to schools. It is, therefore, necessary to give incentives to attract the children to schools. 10.95 lakh children have been enrolled in schools in tribal area upto 1983-84. It is proposed to supply text books, uniforms to the children free of cost in the Seventh Plan. 50 lakh sets of text books will be supplied to equal number of students during the period of the Seventh Plan. The average cost of a set of books would be Rs. 5/-. 50 lakh students would be supplied text books at an estimated cost of Rs. 250.00 lakhs during 1985-90.

9.1.4.16. Two pairs of uniforms per pupil would be supplied to 6 lakh pupils including 2 lakh girl students, free of cost at an estimated cost of Rs. 30/- per uniform for which an amount Rs. 380.00 lakhs is provided for the Seventh Plan, 1985-90.

Special incentives to parents (families) of primitive group

9.1.4.17. It is proposed to give special incentive to the parents of the primitive pupils in the form of foodgrains etc., at an estimated cost of Rs. 250.00 per family per annum if they send their children to schools regularly. Parents of these children who attend schools regularly are thus induced and given incentive. There are about 6000 primitive groups in tribal area. It is proposed to give Rs. 250/- per family in the form of foodgrains to 3000 primitive group families for encouragement to their children of which one would be girl student for which an outlay of Rs. 150.00 lakhs is provided for the Seventh Plan, 1985.90.

9.1.4.18. Thus in all, an amount of Rs. 780.00 lakhs is proposed to be provided under the Tribal Area Sub-Plan as special central assistance for the Seventh Plan 1985-90.

Financial Assistant to Scheduled Castes, Scheduled Tribes and other Backward Classes (Baxi Panch) and to Talented Girl Pupils.

9.1.4.19. There is a huge wastage in elementary education system after standard IV particularly in girls. To avoid stagnation and wastage and also to promote girls education, particularly in Backward communities in the Sixth Plan, a scheme of giving a cash award of Rs. 100/- per student every year to the first five talented girls of S.C., S.T., and O.B.C. in order of merit in the annual examination of Std. IV of each taluka was in operation. This scheme is proposed to be continued with some modification. It is proposed to give cash award to first girl of each school, in each standard V, VI and VII, having low and very low literacy rate in 99 talukas.

9.1.4.20. During the Seventh Plan, 1985-90, a provision of Rs. 288.00 lakhs is made to cover 2.88 lakh girl pupils.

9.1.4.21. Residential Schools in Tribal Areas

(i) The remote areas of Tribal Districts have been identified for opening of residential primary Schools. 12 residential schools at an estimated cost of Rs. 184.68 lakhs are proposed to be expanded during the Seventh Five Year Plan, 1985-90.

9.1.4.22. To maintain the enrolment drive incentive to schools is necessary. For this purpose, three best primary schools in rural area of each district will be selected on the basis of (1) increase in general enrolment (2) increase in general attendance (3) increase in Girls enrolment (4) increase in girls average attendance. The first schools of each district will be given an amount of Rs. 5,000/- The second and the third school of each of the district will be given an amount of Rs. 3000/- and Rs. 2000/- each respectively. An outlay of Rs. 52.00 lakhs is provided for the Seventh Plan, 1985-90 for this purpose.

Coaching Class for weak Students.

9.1.4.23. One of the main objectives of the programme of universal primary education is the reduction in the number of dropouts. To avoid considerable stagnation, it is decided not to hold annual examination at the end of Standard I & II. Looking to the stagnation rate at the end of Std. III, it is proposed to conduct coaching classes for weaker students during summer vacation to enable them to appear for re-examination. A teacher who will conduct a class of not less than 30 pupils will be paid a remuneration of Rs. 10.00 per student. A provision of Rs. 50.00 lakhs is made to cover 5 lakh students during the Seventh Plan, 1985-90.

Non-Formal Education

9.1.4.24. It is found that despite all efforts, it is very difficult to bring all children of the age group 6-14 to school under formal education system. It is, therefore, necessary and imperative to give due stress on Non-formal Education centres and to identify the learner teachers or mobilise the unemployed educated to take up this programme out of 20.66 lakh additional children 4 lakh additional children will be covered under Non-Formal Education for which an outlay of Rs. 250.00 lakhs is provided for the Seventh Plan, 1985-90.

Pre-Primary Schools

9.1.4.25. There are 2068 (362 in Tribal area) pre-primary schools in the State. For smooth running of these institutions, an amount of Rs. 200.00 lakhs is provided for the Seventh Plan, 1985-90.

9.1.4.26. For strengthening the existing machinery at the State level as well as District level for monitoring, a provision of Rs. 30.00 lakhs is made for the Seventh Five Year Plan, 1985-90.

Teachers Training

In-service Training for Teachers

9.1.4.27. The spread of education is increasing and the curriculum is also changed with a view to keep the teachers in constant touch with the new trends in the field of education. In-service training has been, therefore, considered necessary once in a period of seven years. The primary teachers will be given TA. / DA. during training which comes to Rs. 500/- per teacher. Therefore, it is proposed to impart training to 38,000 teachers in the Seventh Plan, 1985-90 for which an outlay of Rs. 190 lakhs is provided.

Training of Primary Teachers of Standard--V to VII (Science Kit Boxes)

9.1.4.28. The Science Kit Boxes are provided in primary schools. It is necessary that the teachers should know how to make use of these kit boxes. 25000 teachers would be imparted training in using science kit boxes during the Seventh Plan, 1985-90 for which an outlay of Rs. 0.50 lakh is provided.

9.1.4.29. For publication of magazines, science fairs and Hobby corners, workshops for science teachers and administrative machinery of State Institute of Education, an outlay of Rs. 72.65 lakhs is provided for the Seventh Plan, 1985-90.

Special Education

Adult Education Programme

9.1.4.30. The Adult Education Programme has been given high priority by Government of India and as such it has been included in the 20-Point Programme and also in the Minimum Needs Programme. The State Government has also realised the importance. According to 1981 Census, the total number of illiterates is 192 lakhs of which 47.85 lakh illiterates are in the age group 15-35. Applying yearly general population growth rate of 2.80% (i.e. 1.34 lakh illiterate adults), to the illiterate adult growth, there would be 53.21 lakh illiterate adults in the age group 15-35 by 1984-85. Taking into consideration, the coverage of 11.59 lakh illiterate adults in the age group 15-35 during the Sixth Five Year Plan, the back-log of illiterate adults in this age-group in the beginning of the Seventh Plan would be 41.62 lakhs. Now again applying the same yearly rate of 1.34 lakh illiterate adults, the total number of illiterate adults in the age group 15-35 during the Seventh Plan would be 48 lakhs.

According to the guidelines from the Government of India, all illiterate adults in the age group 15-35 are required to be covered under the Adult Education Programme during the Seventh Plan. However, 24 lakh adults in this age group 15-35 are proposed to be covered during the Seventh Plan both through the Centrally Assisted Adult Education Programme and the State Adult Education

Programme. It is proposed to cover 6 lakh adult under the State Adult Education Programme during the Seventh Plan. While remaining 18 lakh adults are expected to be covered under the following schemes fully assisted by Government of India:—

- (1) Rural Functional Literacy Projects
- (2) A scheme of Assistance to Voluntary Agencies working in the field of Adult Education
- (3) Adult Education Projects sanctioned by U.G.C.

9.1.4.31. To motivate voluntary agencies to take up the adult education programmes sanctioned by Government of India, it is proposed to give incentive grant to them to meet the partial administrative expenditure of the project. Moreover, it is of utmost importance to publicize the Adult Education Programme in the State to attract the society in general and illiterate adults in particular towards the Adult Education Programme. It is also proposed to implement the post-Literacy and follow-up Programme on the lines of programme formulated by Government of India for the continuing education of the adults successfully completing the literacy programme. An outlay of Rs. 700.40 lakhs is provided for various schemes under State Adult Education Programme in the Seventh Plan.

Higher Education

I. Secondary and Higher Education

9.1.4.32. Keeping in view the perspective and the progress already achieved so far, Seventh Plan, 1985-90 is drawn up and an amount of Rs. 15.34 crores is provided for the programmes of Secondary, Higher Secondary and Higher Education, etc. The minor headwise outlays are as under :—

Sector	(Rs. in lakhs)
Sector	Outlay for Seventh Plan.
Secondary Education	657
Teachers Training	10
Higher Secondary including Vocational Education	410
University Education	397
Physical Education	60
Total :	1534

Secondary Education

9.1.4.33. Secondary Education in the State has rapidly expanded and has almost reached a saturation point except in rural areas. The main emphasis would be on nationalisation and consolidation of the growth achieved so far and for improvement of the quality of education. The perspective kept in view is to restrict quantitative expansion by opening of new schools and to concentrate on consolidation of existing facilities. New schools or expansion of existing schools will be permitted only in specific areas i.e. in Tribal and Backward areas.

9.1.4.34. By the end of June, 1984 there were 2578 secondary schools and 1380 higher secondary schools in the State. Every year, on an average, 34,000 pupils seek admission in the secondary schools. Thus, about 1.87 lakh additional pupils would be enrolled during the Seventh Plan. These students are accommodated in the existing secondary schools by opening additional divisions and by opening new schools. During Sixth Plan period 1006 new secondary schools were opened. According to the existing pattern for a class of 40 pupils, 1.5 teachers are sanctioned. It is proposed to provide an outlay of Rs. 400.00 lakhs for opening 500 new secondary schools for providing facilities in Government Secondary Higher Schools and also for opening of five Government Secondary schools in the Tribal area during the Seventh Plan.

9.1.4.35. More attention will be paid to improvement of quality of education and to recognise the talent in the students. To encourage the students of the weaker sections in furtherance of their study, provision for financial assistance, by way of awards/scholarships and free textbooks is made. Coaching for the weak students in the subjects is proposed in the Seventh Plan, 1985-90.

9.1.4.36. Brief outlines of the schemes under improvement of quality of education are as under :—

Improvement of Science Education

9.1.4.37. It is proposed to cover 100 secondary schools during Seventh Plan, 1985-90 of which 35 schools will be from Tribal Areas. The schools will be paid special grant as grant-in-aid @Rs. 20,000 for science improvement purpose. An outlay of Rs. 20.00 lakhs is provided for the Seventh Plan, 1985-90.

Remedial teaching for coaching of weak students in subjects

9.1.4.38. An outlay of Rs. 10.00 lakhs is provided for covering 15,000 students (5,000 in Tribal Area) for the period of Seventh Plan, 1985-90.

Improvement of quality of teaching by way of in-service training to teachers

Awards to secondary school for best performance in academic developmental activities

9.1.4.39. An outlay of Rs. 10.00 lakhs is provided for Seventh Plan for covering 5,000 teachers during seventh Plan Period.

9.1.4.40. An outlay of Rs. 20.00 is provided for giving awards to 120 schools for best performance during 1985-90.

Book Banks

9.1.4.41. Students coming from the weaker sections of the society are not able to purchase Text Books at Secondary and Higher secondary stage. The schemes envisages to provide for free supply of text books to the needy students. The text books are distributed through the District Education officers. It is proposed to supply 2.30 lakh sets of text books for standards VIII to XII during the Seventh Plan period. The average cost of one set of text books is estimated at Rs. 30/— and accordingly an outlay of Rs. 70.00 lakhs is provided for this purpose.

Higher Secondary including Vocational Education

9.1.4.42 During the Sixth Plan period nearly 50% of the secondary schools are covered under Higher Secondary Education. It is targetted to permit 100 new (20

schools (TASP) and 300 new classes (40 classes in TASP) to open Higher Secondary classes. 750 new Teachers will be appointed for which Rs. 39 lakhs are provided for Seventh Plan.

9.1.4.43. Emphasis is given to improvement of Higher Secondary Education. The programme for training the teachers is linked up with the scheme for in-service training to school teachers.

9.1.4.44. The scheme to provide financial assistance to the Non-Government Secondary schools for enriching Science Laboratory for starting science stream in Higher secondary Classes is also proposed. This will add laboratory facilities of the school lead to improvement in science education. A provision of Rs. 20.00 lakhs is made for the Seventh Plan 1985-90 for covering 100 schools @ Rs. 20,000/— each of which 25 schools will be in the tribal areas. One of the steps or qualitative improvement of Higher secondary Education is to award the schools for best performance in academic and developmental activities. Higher amount of award is proposed to schools having science and vocationalisation stream as a measure of encouragement. An outlay of Rs. 30.00 lakh is provided to cover 120 Higher Secondary Schools including 20 schools in Tribal Area during the Seventh Plan 1985-90.

Vocationalisation

9.1.4.45. For starting of vocational career courses in educational institutions and schools and strating vocational stream in secondary schools an outlay of Rs. 40.00 lakhs is provided to cover 100 (32 in TASP) institutions during 1985-90. Similarly for supervision, control and placement of students in vocationalisation of education, an amount of Rs. 20.00 lakhs is provided for the Seventh Plan period.

9.1.4.46. As a part of the support programme for the improvement of academic control the development plan for individual institutions is also drawn up as under

		(Outlay for 1985-90)
		(Rs. in lakhs)
(1)	Vocational Guidance	5.00
(2)	Strengthening of State Examination Board	15.00

9.1.4.47. The main emphasis would be on qualitative improvement and diversification of courses to increase employment opportunities. It is proposed to provide matching assistance to the Universities so as to enable them to avail of the matching assistance from the University Grants Commission. It is also proposed to provide assistance to the universities towards the development schemes not assisted by the University Grants Commission. A provision of Rs. 125.00 lakhs is made for the Seventh Plan, 1985-90 for the purpose.

9.1.4.48. There is a scope for expansion of Higher Education in Gujarat. Accordingly, one new university *i. e.* North Gujarat University at Patan in Mahesana District would be functioning in the Seventh Plan. This University will spread Higher Education in remote areas of North Gujarat. An outlay of Rs. 100.00 lakhs is provided in the Seventh Plan for its establishment, expansion and development.

9.1.4.49. It is proposed to provide matching assistance to the affiliated colleges in respect of educational schemes proposed by the colleges and approved by the University Grants Commission. A provision of Rs. 10.00 lakhs is provided for the Seventh Plan.

9.1.4.50. There are 236 Non-Government Colleges in the State. Considering the spread of Higher Education, no new college requires to be opened except in Special and Backward Areas. Five new colleges are proposed to be opened during the Seventh Plan period. An outlay of Rs. 30.00 lakhs is provided for the purpose in the Seventh Plan, 1985-90.

9.1.4.51. Looking to the expansion of Higher Education, the view to contract and regulate the expansion and to consolidate existing facilities is kept in mind. Moreover, perspective view for improvement of quality of education and recognising height of excellence attained by the colleges; university teacher is also taken into consideration in schemes proposed in Seventh Five Year Plan period.

9.1.4.52. Higher Education Board will be constituted to control, regulate and co-ordinate higher education activities during the Seventh Plan period. An outlay of Rs. 10.00 lakhs is provided for this for the Seventh Plan, 1985-90.

9.1.4.53. For quality improvement programme, a scheme of performance award to colleges is formulated for the Seventh Plan. An outlay of Rs. 10.00 lakhs is provided for Seventh Plan for covering 20 colleges.

Development of Government Colleges

9.1.4.54. Provision is also proposed for development of Government Colleges for strengthening and developing them by providing more library and laboratory facilities. It is also envisaged to carry out repairing, extension of the college building and minor works of sanitary facilities. For all this, an outlay of Rs. 70.00 lakhs is provided for the Seventh Plan, 1985-90.

9.1.4.55. Free education is made for girls upto higher level from 1985-86 for which provision of Rs. 5 lakhs is made for the Seventh Plan.

Physical Education

9.1.4.56. The following three schemes are proposed to be included in the Seventh Plan, 1985-90.

(Rs. in lakhs)

	Outlay provided for Seventh Plan 1985-90
Games and Sports Assistance to Non-Government Secondary Schools for providing Physical facilities in Physical Education	25.00
A new College for Physical Education	20.00
National Service Scheme	15.00
Total :—	60.00

9.1.4.57. The subject of Physical Education is voluntary at the S. S. C. stage and it is being taught at the Higher Education stage in std. XI and XII. Under the scheme, G. I. A. is proposed to be paid at the rate of Rs. 1500 against management contribution of Rs. 500/- to 950/- to schools in the State. Schools in Tribal area will be exempted from the management contribution.

9.1.4.58. There is one Government Physical Education College at Mangrol, District Junagadh. Certificate courses are being conducted in this college (C. P. Ed.). It is proposed to have a fullfleged college at Mangrol by introducing D. P. Ed. courses with effect from July, 1985. About 450 students will be benefitted under the scheme.

9.1.4.59. National Services Scheme (NSS) is partially centrally sponsored scheme which is introduced in University/Colleges since 1969. This N. S. S. provides good opportunity to the college students to serve the community while taking education in institutions of Higher Learning. Government of India has fixed 26000 students to regular NSS and 13000 students for special NSS programme. The share between Central and State Government for the expenditure is 7:5. The NSS grant will be given to the universities at the rate of Rs. 80 per NSS student for regular activities and for special camping programme Rs. 100/- per student. During Seventh Plan, 6000 students are proposed to be covered with an outlay of Rs. 15.00 lakhs.

Sports and Youth Services

9.1.4.60. Under this minor head, numerous organisational programmes, promotional schemes through out State for Sports development are taken up. Essentially it aims and attempts to achieve total development of young generation in the State as also awakening cultural consciousness and advancement in Sports. The scheme has an ultimate learning on the development of culture and character of the community and its coverage is wide.

9.1.4.61. For the prospective development of sports and youth activities, an outlay of Rs. 272.00 lakhs is provided for the Seventh Plan as detailed below :—

		(Rs. in lakhs)
		1985—90
1	Sports Council	220.00
2	Youth Board	52.00
Total Rs. . .		272.00

9.1.4.62. With a view to create popular awakening in the field of sports among the masses and to impart training and to encourage them to participate in various sports and Games at various levels organised by the Associations and Federations of respective Games and Sports, the scheme has been framed. Various new schemes for the development of Sports and Games in the previous Plans during the last ten years, have been taken up and there is a tremendous expansion of sports activities in the State. For the development of sports activities, the Government have established 23 Districts sports Offices, Regional Coaching Centre at Ahmedabad and about 13 sub-coaching centres in the State. With the expansion of the sports activities and District Offices and sub-coaching centre, it is considered to enhance the activities of sports and games throughout the State. The following new schemes for the Seventh Plan are proposed with an outlay of Rs. 220.00 lakhs.

9.1.4.63. With a view to establish a sub-Coaching centre in each district, for the development of sports and imparting training to the Sportsmen, 14 sub-centres are already established. Five more Centres are proposed to be established in the Seventh Plan. About 85 more coaches are proposed to be recruited for strengthening sub-Coaching Centres, equipment for imparting training in all sports and games are also proposed to be purchased for providing to all sub-Coaching Centres. The office of District Sports Council is proposed to be equipped with telephone facility and duplicating Machines and additional staff for administrative work. It is also proposed to strengthen establishment of the Directorate to cope up with the additional burden of Sports activities and also proposed to equip and strengthen sub-coaching centres with technical staff for maintenance of playgrounds and sports equipment at Gandhinagar.

9.1.4.64. Under the scheme of establishment of Sports Hostel at Gandhinagar, it is proposed to increase the number of inmates and establish a sports library.

9.1.4.65. In the sports complex at Gandhinagar, it is proposed to construct staff quarters, a Mini-Stadia for all purpose of Sports and games, an indoor multi-purpose Gymnasia hall for indoor games, and to provide grants for creating basic facilities of playgrounds and sports equipment in sub-coaching centres in all the districts. It is also considered necessary to organise few Major National Sports events in alternate year and also to organise a children sports competition for children between the age group of 3 to 6.

9.1.4.66. The Sports Council has also decided to give recognition to the old renowned sportsmen by giving them pension, to improve the existing facilities at Duleep School of Cricket at Porbandar by additions and alterations. For this purpose, a total outlay of Rs. 220 lakhs has been provided for the Seventh Plan.

State Youth Board

9.1.4.67. For the development of youth activities and to encourage youth to provide opportunities for participating in various youth activities in the State, it is proposed to formulate following schemes within the allocation of Rs. 52 lakhs for the Seventh Plan, 1985-90.

9.1.4.68. It is proposed to establish a youth Complex at Gandhinagar and Water Sports Institute at Surat, to develop Camp site in Mountain in the State and also to develop the activities of Mountaineering institution at Abu and Junagadh and to equip it with latest equipment of audio visual. It is also proposed to provide facilities and opportunities for tracking river crening, rock climbing, boating. Hang gliding and to develop and centre with basic facilities for such adventurous activities. It is proposed to undertake sea expedition and to encourage boating clubs and adventurous projects, Yoga kendras, Mass tree plantation by giving grant-in-aid to deserving institutes working for youths. It is also proposed to organise Yog Championship, Life Saviour Camps, Regional Camps for Music, Yoga Camps, workshop for youth for Indian Culture and heritage, camps for basic course in Water Sports for Hon. Instructors, Seminar on National youth workers, International Youth worker Seminar, interview clinics for development of skills in vivavoce, - Camps for singing of National Songs and also to organise National Folk dance festival.

9.1.4.69. All these schemes for youth activities are proposed to be implemented in addition to the regular activities organised by the State Youth Board. Thus, all these schemes of training, seminars and Camps, etc., will provide adequate opportunities to the youths and will also be helpful for development of their character and personality. For all the activities an outlay of Rs. 52.00 lakhs has been provided for above youth programmes.

Arts and culture

9.1.4.70. An outlay of Rs. 593 lakhs is provided for the various programme under this minor head for the Seventh Plan :—

	Outlay
(i) Development of Libraries	215.00
(ii) Sangeet Nritya Natya Akadami	96.00
Lalit Kala Akadami	32.00
(iii) Archaeology	75.00
(iv) Archives	75.00
(v) Museums	100.00
Total ..	593.00

The Brief details of the programmes are as under :

Development of Libraries

9.1.4.71. To achieve the objective " Library Service should reach the readers at their door Step " and to make non-reader a reader and a reader a purposeful reader, the following programmes are envisaged during the Seventh Plan for - which an outlay of Rs. 215 lakhs has been provided :

- (1) —Opening of 30 Taluka Libraries
—To Establish Mobile Units of District Places.
- (2) Construction of Government library Building at Mahesana, Vadodara and Valod.
- (3) Purchase of Furniture-equipment and reading materials for 13 Government Libraries.
- (4) Contribution towards Raja Ram Mohan Ray Library Foundation, Calcutta and opening of Village Libraries.
- (5) Refresher Course for employees and GIA to Library Science Course and opening of Library Science Bhavan.
- (6) Strengthening of office of Curator of Libraries, Divisional offices and Two Central Libraries.
- (7) Strengthening of Government District Libraries as per norms.
- (8) G. I. A. to Non-Government Libraries including Village Libraries.

The brief details of the activities are as under :—

Contribution towards Raja Ram Mohan Ray Library Foundation :

9.1.4.72. Since Fifth Plan, we are taking benefit of the scheme of the Foundation of matching grant for purchase of Reading materials-Preservation of rare material, etc. Foundation gives equal grant on the basis of matching contribution. The scheme provides reading materials to grant-in-aid Libraries in particular and other categories in general.

Opening of New Village Libraries

9.1.4.73. At present, we are giving Rs. 1000/- as initial grant to open a village library. It is proposed to open 500 more village libraries during the Seventh Plan period, 1985-90.

Institute of Library Science Education :

9.1.4.74. This Institute, imparts training to Library personnel, arranges workshops on Library Science, organises Education Courses, research projects, Seminars, Conferences, publishes periodicals, etc.

9.1.4.75. At present, Refresher Courses and workshops are conducted by the Department. To concentrate on Library Education, a separate unit under Department of Libraries is proposed. It is proposed to equip the District Libraries with zerox; Microfilming facility and Television, VCR, etc., and to appoint staff as per norms approved by Government.

Revision of G. I. A. Pattern

9.1.4.76. The cost of Books, periodicals, News Papers, etc., has increased considerably. The capacity of common people, for purchase of reading material has gone down. Hence Public Libraries are the only effective mode. It is proposed to give more financial assistances by revising the existing G. I. A. pattern. For this purpose, an amount of Rs. 10.00 lakhs is provided in the Seventh Plan, 1985-90.

Sangeet Nritya Natya Akadami

9.1.4.77. An outlay of Rs. 96.00 lakhs is provided for Sangeet Nritya Natya Akadami for Development of cultural activities in the State. It is proposed to take up following activities during the Seventh Plan period :

1. To establish a Gurukul for higher studies in music and dance.
2. Development of arts in general and expansion of Cultural activities.
3. Museum of performing arts, folk art and the documentation Unit.
4. Folk dances of Gujarat
5. To establish a centre for training in Haveli Sangeet, Kirtan and Man Bhatt Music
6. To organise the seasonal festival programmes every year
7. Grant-in-aid to Art institutions

Lalit Kala Akadami

9.1.4.78. An outlay of Rs. 32.00 lakhs is provided for Lalit Kala Akadami for the Seventh Plan, 1985-90 for the following activities :

1. Expansion of arts activities and strengthening the art Gallery at Ahmedabad
2. Construction of Arts Centres at Vadodara, Surat and Bhavnagar
3. Documentation of Arts and Artists and make it available to art students and budding artists and art institutions.

Archaeology

9.1.4.79. The State of Gujarat is situated in western part of India. It contains vivid geographical background, long sea coast, hills, mountains, rivers and plains, alluvial land. The major activities of the Archaeology department are Archaeological excavation exploration, archaeological survey of rivers, valleys protection and conservation of the protected monuments. Implementation of the Archaeological Act and Ruls, Treasure Trive Act, registration of antiquities, Archaeological publications, etc.

9.1.4.80. During the Sixth Five Year Plan, 1980-85 the achievements were as under :—

Item	Achievement
Exploration	Villages 1547
Excavation	Places 20
Conservation and Chemical treatments	monuments 45
Publication	books 17

9.1.4.81. The activities for development of Archaeological exploration, excavation, conservation and chemical treatment of the State protected monuments situated in the State of Gujarat would be continued in the Seventh Plan and an amount of Rs. 75.00 lakhs is provided for 1985-90 for the activities detailed below :—

Details

Creation of new posts including two new sub-circles

Conservation of monuments

Chokidar quarters

Purchase of equipments

Sculpture shades at five places (Polo, Kaleshwari, Ghumali, Antersuba and shamlaji)

Excavation, exploration Minor & Major

Chemical treatment

Site Museum at Rozadi

Purchase of books

Training

Publication (Departmental and of other reputed Research Schools)

Equipments for Marine branch & Staff

Archives

9.1.4.82. A separate department of Archives was set up in 1971. It is being developed gradually. It serves as an instrument to public as a source of historic materials and seeks to preserve the cultural heritage for posterity. The department also looks after preservation and maintenance of old non-current record of a permanent nature. During the Sixth Plan Rs. 37 lakhs have been spent and 5 District Record offices in Saurashtra region have been taken under the control of the department. A sum of Rs. 75 lakhs is provided for the Seventh Plan of which Rs. 65.86 lakhs would be spent for strengthening and Rs. 9.14 lakhs for equipments.

9.1.4.83. During the Seventh Plan period 6 records offices situated in Saurashtra region will be taken over under the control of the department. 4 offices in North and South Gujarat will also be set up.

Museums

9.1.4.84. The Department of Museums is mainly concerned with preservation of our cultural heritage and enrichment of museums by addition of new collections, reorganisation of museums on modern lines for the educational benefit and research for students and scholars and the people. At present, there are 11 Government Museums and 3 Grant-in-aid museums in the Gujarat State.

9.1.4.85. During the Sixth Plan, the Museums have been provided with a rare and priceless works of arts, film projectors, laboratory equipment, popular and professional publications. The District Science Centre, Dharampur has been established. An outlay of Rs. 100.00 lakhs is provided for the Seventh Plan, 1985-90. Following activities are proposed in the Seventh Plan period :—

- 1 New Museums
- 2 Expansion of old Museums
- 3 Equipments, reorganisation, purchase of Art-Objects etc
- 4 Establishment of 8 Tribal Museums in the tribal areas

Other Programme

Development of Languages

9.1.4.86. An outlay of Rs. 225.00 lakhs is provided for the Seventh Plan for development of languages in the State. The details of the schemes are as under :—

	(Rs. in lakhs)
	Outlay for Seventh Plan
1 Development of Gujarati language	130.00
2 Development of Urdu language	65.00
3 Development of Sanskrit language	30.00
	<hr/> 225.00 <hr/>

9.1.4.87. Gujarat Sahitya Academy has been established for the development of Gujarati language and its literatures. During the Seventh Five Year Plan, following programmes will be undertaken by Academy :—

- 1 Building for Academy
- 2 Publication of classical works, encouragment of new authors, Books and Ref. Books, awards, seminars and other programmes
- 3 Audio-visual documentaries
- 4 Publications of periodicals
- 5 Encyclopedia of ancient and Medievel Gujarat narrativas

9.1.4.88. Certain programmes, which may help in development of Gujarati as an Official Language of the States, will also be taken up by the Directorate of Languages, which will include reprint of Standard Gujarati-English Dictionary, Trilingual Dictionary, comprehensive Grammer of Gujarati Language, Collection of Gujarati idioms and proverbs, Departmental Dictionaries and Glossaries, etc.

9.1.4.89. For the development of Urdu Sindhi and other modern Indian Languages, the following programmes would be implemented :—

- 1 GIA for purchase of Urdu Books.
- 2 Financial Assistance to authors for translation and publication of Literary works.
- 3 Awards to writers, reprint of rare books, Training Centres, Celebration of Literary festivals, Gujarati-Urdu dictionary, publication of periodicals and other programmes.

9.1.4.90. For the development of Sanskrit language in the Seventh Plan, it is proposed to undertake the work of Old Granth publications, awards for literary works, GIA to Sanskrit Subhasit work. Awards to Sanskrit Pandits, GIA to Sanskrit Institutions/Pathshalas and strengthening the Directorate of Languages and the Directorate of Education during the Seventh Plan.

STATEMENT

Schemewise Outlays for the Seventh Five Year Plan 1985-90.

(Rs. in Lakhs)

Sr. No. 1	No. and Name of the Scheme 2	Outlay 3
1. PRIMARY AND ADULT EDUCATION		
(I) Elementary Education		
1	EDN-1 Add. teachers for Add. enrolment in primary schools	2689.30
2	EDN-2 Construction of Class rooms	50.00
3	EDN-3 Opening of New Primary Schools	10.00
4	EDN-4 Opening of New Primary Schools at Capital town	2.00
5	EDN-5 Conversion of single teacher schools into two teachers schools.	751.87
6	EDN-6 G.I.A. to schools for improvement of physical facilities.	100.00
7	EDN-7 Science Kit Boxes	50.00
8	EDN-8 Financial assistance to talented SC/ST/OBC (Baxi Panch) Girls Pupils.	288.00
9	EDN-9 Residential Primary schools in Tribal Area.	184.68
10	EDN-10 Incentive to Girls for regular enrolment attendance.	52.00
11	EDN-11 Strengthening of Supervisory machinery.	155.60
12	EDN-12 Coaching Classes for weaker students in summer vacation.	50.00
13	EDN-13 Introduction of non-formal Education for the age group 9-14.	250.00
14	EDN-14 G. I. A. to Pre-Primary Schools	200.00
15	EDN-15 Strengthening the existing machinery at State and District level.	30.00
Total (I) : Elementary Education :—		4863.45

	(II)	Teachers Training :	
16	EDN-16	Inservice training for teachers.	190.00
17	EDN-17	Training of Primary Teachers for Std. V to VII (Science Kit Boxes)	0.50
18	EDN-18	Magazines for School boys.	2.50
19	EDN-19	Science fair at Dist. and State level.	6.00
20	EDN-20	Science Hobby corner innovation and experimentation in Science Education.	4.50
21	EDN-21	Workshop for Science teachers for Primary Education.	1.66
22	EDN-22	Strengthening the administrative wing of S.I.E. Ahmedabad.	3.61
23	EDN-23	Strengthening of publication unit of S.I.E., Ahmedabad	0-85
24	EDN-24	Strengthening the activities of group centres in the State.	33.07
25	EDN-25	Strengthening library services of S.I.E. Ahmedabad.	1.80
26	EDN-26	Tribal Cell in S.I.E., Ahmedabad.	4.73
27	EDN-27	Strengthening of S.I.E. unit (Development of comm. Science centre).	3.93
28	EDN-28	Learning materials of non-formal education i.e. open school by correspondence and contact.	10.00
29	EDN-29	Construction of S.I.E., building.	10.00
		TOTAL (II) TEACHERS, TRAINING	273.15
	(III)	Special Education.	
30	EDN-30	State Adult Education Programme	500.00
31	EDN-31	Ad. posts for literacy programme.	120.00
32	EDN-32	Incentive grant to voluntary agencies.	10.00
33	EDN-33	Publicity (Adult)	10.00
34	EDN-34	Administrative set up (Adult)	35.00

1	2	3
35	EDN-35 Prize scheme in Adult Education	25.40

TOTAL (III) SPECIAL EDUCATION :— 700.40

TOTAL : (I + II + III) : PRIMARY AND ADULT EDUCATION :— 5837.00

IV. Secondary Education

36	EDN-36 Regulated growth of Secondary Schools	350.00
37	EDN-37 Regulated growth of Govt. Secondary	50.00
38	EDN-38 Remedial teaching for weak students	15.00
39	EDN-39 Improvement of Secondary Education	20.00
40	EDN-40 Inservice training to teachers	10.00
41	EDN-41 Setting up of a book bank	70.00
42	EDN-42 Strengthening of Directorate of Education & District Education Office	35.00
43	EDN-43 Construction & repairs to Govt. Secondary schools/Dist. Edn. Office	50.00
44	EDN-44 Strengthening of State Exam. Board	15.00
45	EDN-45 Strengthening of Institute of Vocational guidance	5.00
46	EDN-46 Dev. of Sanskrit Pathshala & Scholarships	10.00
47	EDN-47 Appointment of Hindi Teachers in Non-Hindi speaking States.	10.00
48	EDN-48 Performance award to Secondary schools.	20.00
49	EDN-49 State Scholarship to talented ST Students in tribal areas.	4.00
50	EDN-50 Coaching classes for national talented students	3.00

TOTAL : (IV) SECONDARY EDUCATION 667.00

V Higher Secondary Education.

51	EDN-51 Opening of new higher Secondary Schools including Government Higher Secondary Schools	300.00
52	EDN-52 Performance award to Higher Secondary School	30.00

1	2	3
53	EDN-53 Improvement of Science Education in Higher Secondary Schools	20.00
54	EDN-54 Vocationalisation of education GIA to Voluntary Agencies.	40.00
55	EDN-55 Vocationalisation at Educational Supervision control and direction and Placement	20.00
	TOTAL (V) HIGHER SECONDARY EDUCATION	410.00
	VI. University Education	
56	EDN-56 Grants to Universities for higher Administrative & Managerial development courses	16.00
57	EDN-57 Performance award to colleges	10.00
58	EDN-58 Development of Govt. Colleges	70.00
59	EDN-59 Special coaching classes for weak students	16.00
60	EDN-60 Provision of matching share against UGC grants to colleges	10.00
61	EDN-61 Grants to university (including Residential University, Bhavnagar)	125.00
62	EDN-62 Establishment of new University of North Gujarat	100.00
63	EDN-63 Opening of new non-Govt. colleges-Award to Colleges & University	30.00
64	EDN-64 Creation of Higher Education Board	10.00
65	EDN-65 Loan Scholarships	5.00
66	EDN-66 Free Education for Girls	5.00
	TOTAL VI :UNIVERSITY & HIGHER EDUCATION	397.00
	VII Physical Education	
67	EDN-67 Games & Sports	25.00
68	EDN-68 New Colleges for physical Education	20.00
69	EDN-69 National Service Scheme	15.00
	TOTAL (VII) PHYSICAL EDUCATION	60.00
	TOTAL : IV+V+VI+VII : HIGHER EDUCATION	1534.00

IX. Sports and Youth Services

70	EDN-70	Integrated Scheme of Youth Welfare	52.00
71	EDN-71	Expansion of the activities of Sports Council	220.00

TOTAL : (VIII) Sports and Youth Services

272.00

(XI) Art and Culture**(1) Development of Libraries**

72	EDN-72	Establishment of Taluka libraries	15.00
73	EDN-73	To start Mobile Unit	10.00
74	EDN-74	Construction of library Building	15.00
75	EDN-75	Purchase of furniture for Govt. Libraries	15.00
76	EDN-76	Purchase of Reading materials for Government Libraries	15.00
77	EDN-77	State contribution towards Raja Ram Mohan Ray Library Foundation.	15.00
78	EDN-78	Opening of village libraries	5.00
79	EDN-79	Refresher Courses for Employees etc.	10.00
80	EDN-80	Strengthening of the Office of Curator of Libraries	10.00
81	EDN-81	Strengthening of the Office of the Asstt. Curator of Libraries	10.00
82	EDN-82	Strengthening of the Office of Central libraries	30.00
83	EDN-83	Strengthening of Govt. Dist. Libraries	25.00
84	EDN-84	G.I.A. to Non-Govt. Libraries	40.00

TOTAL : (1) Development of Libraries

215.00

(2) Cultural Activities

85	EDN-85	Sangeet Nritya Natya Akadami	96.00
86	EDN-86	Lalit Kala Akadami	32.00
87	EDN-87	Development of Archeology	75.00

1	2	3
88	EDN-88 Development of Archives	75.00
89	EDN-89 Development of Museums	100.00
Total : (2) Art and Cultural Activities:		378.00
Total (IX) (1+2) Art and Culture		593.00
X Development of Languages and Book Production		
90	EDN-90 Development of Gujarati languages and its literature	130.00
91	EDN-91 Development of Urdu-Sindhi and other languages	65.00
92	EDN-92 Development of Sanskrit language	30.00
Total (X) Dev. of Languages and Book Production.		225.00
Nucleus Budget		215.00
Grand Total : General Education		8676.00

9.2. TECHNICAL EDUCATION

9.2.1. Introduction

9.2.1.1. One of the primary tasks in the Seventh Plan would be the harnessing of the country's abundant human resources and improving their capabilities for development with equity. An important aspect of human resource development is to match manpower planning with educational planning to avoid imbalances between the supply and demand in respect to trained and educated manpower. Training facilities will have to be organised for categories of manpower where critical shortage have been identified and in the formation of new skills to meet emerging needs. Keeping this approach in view, the programmes under "Technical Education" have been formulated for the period of the Seventh Five Year Plan.

9.2.1.2. The state Government has established 9 engineering colleges and 24 polytechnics in the State with an intake capacity of 2316 and 5646 seats for degree and diploma courses respectively.

9.2.1.3. There are 44 technical high schools in the State with an intake capacity of 47500 seats, which give technical back-ground to the secondary school students. Certificate courses have also been developed in these schools, I.T.I. type of trade courses are also offered by some of these schools under 'Skill Formation Programme'.

9.2.1.4. The growth of technical education has to keep pace with the growth of economy so that technologists, engineers and technicians are made available in number to meet the growing demand for trained manpower in high technology areas.

9.2.2. Review of Progress

9.2.2.1. The details of physical achievements upto the end of Sixth Five Year Plan are as under :—

Plan period	Engineering colleges Degree		Polytechnics Diploma	
	No. of Institutions	Intake	No. of Institutions	Intake
1	2	3	4	5
Ist Plan (1951-56)	4	475	8	760
IIInd Plan (1956-61)	4	950	11	1475
IIIrd Plan (1961-66)	5	1360	18	2705
Three Annual Plans (1966-69)	7	1790	19	3225
IVth Plan (1969-74)	7	1790	19	3225
Vth Plan (1974-79)	7	1820	19	3225
1979-80	7	1885	19	3705
VIth Plan (1980-84) target	8	2226	21	5466
1984-85	9	2316	24	5646

9.2.2.2. To meet with the requirements of Civil Engineers, Electronic Engineers, Computer Technologists etc., the facilities at Degree and Diploma level have been considerably increased by utilising the infrastructure of the colleges and polytechnics already established in the State.

9.2.2.3. The major development during the Sixth Five Yer Plan have been :

- (a) Establishment of two new Engineering Colleges at Bhavnagar and Modasa.
- (b) Establishment of five new polytechnics at Jamnagar, Himatnagar, Palanpur, Surendranagar and Amreli.
- (c) Establishment of Certificate/Vocational level institutions at Vyara, Chhota-Udepur, Veraval-Patan and Bhavnagar.
- (d) Introduction of Basic Electronics course in selected schools, which will be gradually extended to more schools during the Seventh Five Year Plan.
- (e) Introduction of Electronics Technician course in selected technical institutions which will be extended during the Seventh Five Year Plan.
- (f) Introduction of more seats of part-time courses for those who are employed.

9.2.2.4. Looking to the fast changing industrial complexion of Gujarat State and corresponding need of technically qualified personnel, the Government have started diversified courses as under :—

Sr.No.	Name of the Course	Seats
1	Post Graduate Course in Electronics at Ahmedabad	8
2	<i>Degree Courses</i>	
	(a) Computer Engineering at Ahmedabad	20
	(b) Environmental Engineering at Ahmedabad	20
	(c) Plastic Technology & Rubber Technology at Ahmedabad	20
	(d) Power Electronics at Morbi	20
	(e) Industrial Engineering at Morbi	20
3	<i>Diploma Courses</i>	
	(a) Power Electronics at Surat	30
	(b) Instrumentation and Control at Rajkot and Ahmedabad	60
	(c) Computer Technology at Surat and Rajkot	40
	(d) Computer Application at Ahmedabad	30
	(e) Fabrication Technology at Bhavnagar	20
	(f) Personal Secretarial Practice at Surat	15

9.2.2.5. Degree courses in Electronics and Communication Engineering have been introduced at Nadiad, Vallabh-Vidyanagar and Surat. Apart from increasing the seats at L. D. College of Engineering, Ahmedabad, Instrumentation and Control courses have been introduced at newly started Engineering College at Bhavnagar and the seats have been increased at L. D. College of Engineering, Ahmedabad. Diploma course in Chemical Engineering has been introduced at L. J. Polytechnic, Bharuch.

9.2.3. Approach and Strategy

Computerisation

9.2.3.1. Computers have become very important in the industries, business, research and administration. To meet with the need of different types of computer personnel, relevant courses have been introduced in the Engineering Colleges and Polytechnics. Efforts in this direction will have to be increased during the Seventh Five Year Plan.

Expansion and development of courses

9.2.3.2. It will be necessary to identify and introduce new technical courses in selected institutions to suit local industrial needs, particularly in emerging fields such as bio-medical engineering, petrochemicals, polymer technology, power electronics, industrial engineering, computer science, marine engineering, and the new courses of energy like solar, wind and tidal energy to induce entrepreneurship and appropriate technology leading to labour intensive self-employment.

Faculty Development

9.2.3.3. Various programmes of faculty development are proposed to be continued by deputing the teachers for Doctorate and post-graduate programmes, industrial training and training programmes conducted by Indian Institute of Technology. The programmes of training of instructors and supporting staff of Engineering Colleges, Polytechnics and Technical High Schools have also been initiated. Efforts in this direction will need to be augmented during the Seventh Plan.

Students' Amenities

9.2.3.4. Canteen facilities have already been provided at established engineering colleges and polytechnics. Adequate hostel facilities have also been created at Engineering Colleges and Polytechnics. However, more attention will have to be paid during Seventh Five Year Plan to the development of play-ground and sports facilities. Activities pertaining to book bank and book service centres will need to be continued during the Seventh Five Year Plan.

Continuing Education and Vocational Education

9.2.3.5. Facilities for parttime courses have been sufficiently increased for the persons working in different industries at various levels. Similarly, facilities for I.T.I pattern courses and Technical Education Board pattern courses have been substantially augmented. These activities will have to be continued during the Seventh Plan.

9.2.4. Programme for the Seventh Five Year Plan 1985-90

9.2.4.1. In view of major expansion by way of establishment of new engineering colleges, polytechnics, technical institutions and introduction of diversified courses in new emerging areas during last two years of the Sixth Five Year Plan, major efforts during the Seventh Five Year Plan will be made for consoli-

dition and quality improvement. The brief details of the programmes of the Seventh Five Year Plan are :—

- To provide college buildings, hostels, quarters, equipment, libraries, furniture and staff for newly established colleges at Bhavnagar and Modasa. To provide buildings, hostels, quarters and equipment / furniture / books and staff for newly established polytechnics at Jamnagar, Himatnagar, Palanpur, Surendranagar and Amreli.
- To provide buildings, equipment and staff and infrastructural facilities at newly established Technical Institutions at Vyara, Chhota-Udepur, Veravalpatan and Bhavnagar.
- To increase admission capacity in the newly established engineering colleges, polytechnics and technical institutions including introduction of courses in new disciplines.
- To modernise the laboratories and workshops of old colleges, polytechnics and technical high schools as per the need of technological changes and modernisation of curricula.
- Provision of computers at various institutions and training of staff in the use of computers and micro processors.
- To provide adequate facilities of buildings, equipment and staff as per National Council for Vocational Trades' norms for the I.T.I. pattern seats introduced in the Sixth Plan.
- To provide additional facilities for technical/vocational education for women especially in tribal areas.
- To provide additional facilities of teaching basic electronics at secondary level and vocational courses of electronic technicians, etc.
- To provide more facilities for continuing education by establishment of institutes/centres.
- To promote transfer of technology through community polytechnics.
- To strengthen the Directorate of Technical Education by establishment of manpower cell and machinery for monitoring and evaluation of development schemes.
- To strengthen the Technical Examination Board to meet with the need of increasing number of students and institutions and to establish the curriculum development cell for continuously updating and upgrading of various courses.
- To introduce certificate courses in new emerging and diversified subjects.
- To strengthen the diploma and certificate level institutions which have been already established in the tribal areas.
- To improve the staff structure in polytechnics as per Madan Committee recommendations.
- To provide, add and strengthen faculty development programmes for teachers and supporting staff of engineering colleges, polytechnics and Technical High Schools.

9.2.4.2. An outlay of Rs. 1820 lakhs has been provided for the Seventh Five Year Plan (1985-90) of which Rs. 245.70 lakhs have been provided for the consolidation and expansion of facilities for scheduled tribes students.

9.2.4.3. Programmewise details of the outlays provided for the Seventh Plan are as under :—

Programme	(Rs. in lakhs)
	Outlay for 1985-90
Direction and Administration	15.00
Technical High Schools	340.00
Polytechnics	837.70
Engineering Colleges/Institutions	455.00
Scholarships	5.00
Research and Training	10.00
Other expenditure	157.30
Total ..	1820.00

Direction and Administration

9.2.4.4. It is proposed to provide for additional professional and techno-administrative staff for re-organising the directorate with special emphasis on manpower requirement, surveys and forecasting and programme of im'plementation, monitoring and evaluation cell. Activities of the Technical Examinations Board are expanding qualitatively as well as quantitatively. Number of students, courses and institutions, for which examination are to be conducted is fast increasing. The continuous work of curriculum revision and modernisation will need immediate attention for development of curricula as per changing needs of employers. Required machinery will be provided for these activities. An outlay of Rs. 15.00 lakhs has been provided in the Seventh Plan for this purpose.

Technical High Schools

9.2.4.5. It has become imperative to modernise the equipment of old Technical High Schools and provide buildings, equipment and staff for newly introduced ITI pattern courses to fulfill the requirement of permanent affiliation of "National Council for Vocational Traders". It is also necessary to offer basic electronics course in schools and introduce several certificate courses like electronic technicians etc. An outlay of Rs. 340 lakhs have been provided in the Seventh Plan for this purpose.

Polytechnics

9.2.4.6. Massive efforts will be required for providing physical and other facilities required for five new Polytechnics (Himatnager, Jamnagar, Amreli, Surendranagar and Palanpur) and new diploma courses as per the reports of W.R.C. and norms of AICTE for getting AICTE approval to courses and institutions. Adequate financial support will have to be provided to the polytechnics for consolidation and expansion of their activities and for modernisation of laboratories and providing computer/micro processors. An outlay of Rs. 822.70 lakhs has been provided in

the Seventh Plan for this purpose. An amount of Rs. 15 lakhs is provided with a view to introduce diversified courses and to increase seats for optimum utilisation of resources in private grant-in-aid polytechnics.

Engineering Colleges

9.2.4.7. It is proposed to provide adequate facilities of buildings, equipment and staff in two newly started engineering colleges at Bhavnagar and Modasa and for new degree courses, to meet with the requirement of affiliation of the colleges/courses with the respective universities. Adequate financial support will also have to be given to the Engineering Colleges for modernisation of laboratories. Recommendations of W.R.C. and AICTE will have to be implemented for their approval. An outlay of Rs. 415.00 lakhs is provided for the Seventh Plan for this purpose. It is also proposed to introduce courses in emerging areas and increase seats in private Engineering Colleges including S. V. Regional College of Engineering and Technology, Surat and facilities e.g. buildings, equipment, staff, library etc. will also be provided in such colleges. A provision of Rs. 40.00 lakhs is made for this purpose.

Scholarships

9.2.4.8. The present rate of scholarships provided to top ranking students in the engineering colleges, polytechnics and technical institutions were fixed long back. It is proposed to revise the rate of scholarships for top ranking students of degree, diploma and certificate courses. It is also proposed to sanction additional scholarships to students of new courses and new institutions. A provision of Rs. 5 lakhs is made in the Seventh Plan for this purpose.

Faculty Development and Training of Staff

9.2.4.9. The need for continuous training for updating and upgrading of knowledge and skills of staff organisations connected with Technical Education is a felt need. An outlay of Rs. 10.00 lakhs is provided for this purpose. The proposed programmes will be :—

- Deputing Engineering Colleges teachers for Post-Graduate education, Research and practical training.
- Deputing teachers of Polytechnic for Post-Graduate education, practical training and diploma holder teachers for degree courses. Training programmes through Technical Teachers' Training Institute, Bhopal will be strengthened to cover fresh teachers also.
- Arranging short term training for skill updating as well as pedagogical aspects for supporting staff of Engineering Colleges, Polytechnics and Technical High Schools.
- Deputing teachers for summer and winter school programmes and arranging special programmes for teachers of Technical High Schools.

Other Programmes

9.2.4.10. **Non-formal and Continuing Education.**—Due to fast changing technologies used by the industries in the various areas of development, it has become imperative to provide second stage of training by way of diversification and updating of knowledge of those who are already employed. It is proposed to establish centre of continuing education and offer number of specialised courses to different levels of personnel. The existing rate of expansion of formal education by way of establishment of new

institutions and increasing seats are becoming more and more costly and still does not meet with the demand of learners and employers. It is proposed to establish an institute of Distance Learning to cover larger number of students who are geographically, economically and socially inconveniently placed. An outlay of Rs. 5 lakhs has been provided for this programme.

Revision of Staff Structure

9.2.4.11. Staff structure in Engineering Colleges have been revised during the Sixth Plan as per the recommendations of Madan Committee. However, the same is proposed to be revised in case of polytechnics during the Seventh Plan. Strengthening of training and placement cells in the engineering colleges and polytechnics is also being considered for the Seventh Five Year Plan. An outlay of Rs. 19.30 lakhs is provided for this purpose.

Staff Quarters

9.2.4.12. Due to continuous expansion of Technical Education, staff quarters could not be provided for essential staff required to stay at the campus, and for the institutions which are not conveniently located, including the tribal areas. It is proposed to provide staff quarters in a phased manner at such institutions, for which an outlay of Rs. 90 lakhs is provided for the Seventh Plan.

Hostel for Students :

9.2.4.13. Minimum hostel facilities is proposed to be provided at newly started engineering colleges and polytechnics. In view of increasing number of girl students seeking admissions to engineering colleges and polytechnics, it has become imperative to provide hostel facilities at L. E. College, Morbi and other institutions for girls. An outlay of Rs. 40 lakhs is provided for the Seventh Plan.

Students' Amenities

9.2.4.14. Students Amenities like canteen, cycle shed, water coolers etc. are proposed to be provided at newly started institutions. Proper play-grounds and sports facilities are also required at polytechnics and Technical High Schools for which an outlay of Rs. 5 lakhs is provided for the Seventh Plan.

9.2.5. Centrally Sponsored Schemes

9.2.5.1. Under the fully centrally sponsored programme of post graduate courses and research work, an amount of Rs. 50 lakhs in the Seventh Plan is proposed with a target of providing 70 seats in the following post graduate courses :

Name of the course	No. of Seats
Post Graduate Degree in Public Health Engineering	10
Post Graduate Degree in Water Resources Engineering	10
Post Graduate Degree in Structural Engineering	10
Post Graduate Degree in Transportation Engineering	10
Post Graduate Degree in Soil Engineering	10
Post Graduate Degree in Design (Mech.) Engineering	10
Post Graduate Degree in Circuits & Instrumentation	10
Total	70

STATEMENT

Schemewise Outlays for the Seventh Five Year Plan 1985-90

(Rs. in lakhs)

Sr. No.	No. and Name of the Scheme	Outlay provided
1	2	3
1	TED-1—Strengthening Administrative Machinery of Technical Education Department and Technical Examination Board	15.00
2	TED-2—Technical High Schools (Vocationalisation)	340.00
3	TED-3—Development of Govt. Polytechnics & Girls' Polytechnics including Quality improvement programmes/Industrial Training for students of Diversified and Sandwitch courses at Diploma level.	822.70
4	TED-4—Grant-in-aid for private polytechnics & Development of Food Craft Institute, Ahmedabad	15.00
5	TED-5—Development of Govt. Engineering Colleges including Quality Improvement Programme, development of special Training Programme for specific requirement in Gujarat.	415.00
6	TED-6—Grant-in-aid to private Engineering Colleges including S. V. Regional Engineering College, Surat.	40.00
7	TED-7—Increase in number of scholarships in Engineering Colleges and Institutions	5.00
8	TED-8—Training of teachers and instructors for Technical Institutes	10.00
9	TED-9—Provision for students' amenities in Technical Institutes	5.00
10	TED-10—Revision of staff structure	17.30
11	TED-11—Continuing Education Programme (Non-formal Education)	5.00
12	TED-12—Construction of staff quarters for Engineering Colleges and Polytechnics	90.00
13	TED-13—Construction of Hostels for students of Technical Institutes	40.00
Total		1820.00

9-3. MEDICAL AND PUBLIC HEALTH

9.3.1. Introduction

9.3.1.1. The Constitution of India enjoins the State to raise the level of nutrition and the standard of living of its people as its primary duty with a view to develop the human resources. It also underlines very specifically offer of facilities and opportunities by the State people to develop their health.

9.3.1.2. Pursuant to this direction in the Constitution, the State has been undertaking from the year 1951-52 programmes of development in the field of Health. Programmes of development taken up include rural health care services, nutrition, family welfare, health education, and water supply. Health programmes capable of delivering services to larger number of people, especially in the rural areas and covering rural poor, are emerging from plan to plan and correspondingly the health infrastructure is thereby getting stronger and stronger in the State. The aggregate indices like expectation of life, the death rate, infant mortality rate, etc., reflect the improved health infrastructure and its delivering capacity. The health activities envisaged for the period 1985-90 will strengthen the health infrastructure. It is envisaged to bring health services to more and more people so that the national commitment of "Health for all by 2000 A. D." is achieved.

9.3.2. Objectives and Strategies

9.3.2.1. Broadly, the health programmes taken up by the State so far have been guided by the recommendations of the Health Survey and Development Committee (Bhore Committee, 1946), Health Survey and Planning Committee (Mudaliar Committee of 1961), the Chatterji Committee on Health Administration, appointed by the State, the comprehensive national health policy "health for all by 2000 AD" and the deliberations of the Central Council of Health and Family Welfare. The recommendations of these committees form the basis of the health programmes taken up under the Five Year Plans.

9.3.2.2. Public health services cater for : (1) curative and preventive primary health care services, (2) control or eradicate major communicable diseases and (3) training programmes of medical and para-medical personnel.

9.3.2.3. While organizing the provision of comprehensive health care services relevant to the needs of the people at cost they can afford, care has been taken to ensure the involvement of the people, communities and voluntary agencies in the stage of formulation and implementation.

9.3.3. Review of Progress

9.3.3.1. A para-medical system at base level with Primary Health Centres and sub-Centres have been established in the rural areas. They had their origins in 1952 when a national programme of Community Development was taken up. Beginning with curative services, the primary health centres have gradually extended their activities. They now provide a package of services which includes nutrition, sanitation, family planning, health education, maternal and child health care, the control of communicable diseases and the collection of epidemiological and other data. The sub-centres normally provide services primarily on the preventive side. The PHC.s, S.H.C.S. and C.H.C.S. also provide curative and referral services. At the end of the Sixth Five Year Plan, there were 21 Community Health Centres, 260 Primary Health Centres, 50 subsidiary health centres and 4869 sub-centres in the State under different programmes like Health Programme, Family Welfare Programme, Minimum Needs Programme and Multi purpose Workers Scheme.

9.3.3.2. Community participation was encouraged through recruitment of Community Health Volunteers under the Revised National Health Policy of 1977. Community Health Volunteers provide basic medical services in each village. More complicated cases are referred to the Primary Health Centres or sub-Centres. At the end of 1984-85, 25091 Village Health Guides are serving the rural areas of the State.

9.3.3.3. On the recommendation of the Central Council of Health and Family Welfare in 1974, a Multi Purpose Workers Scheme is being implemented by the State to deliver a package of health services which included health care services, nutrition and family planning. The Multi Purpose Workers are attached to the P. H. Cs. They carry out their functions in the villages by visiting the house holds. They also supervise over the work of village Health Volunteers. Upto 1984-85, 5921 Multi-Purpose Workers have been trained in the State.

9.3.3.4. At the higher levels above PHCs, there are Community Health Centres, Taluka and District hospitals, civil hospitals and other hospitals dealing with specialised medical care.

9.3.3.5. At the end of the Sixth Plan, there would be 302 hospitals and dispensaries in urban areas. In rural areas their number would be of the order 449. The bed strength by the end of the Sixth Five Year Plan is to 11,621 in urban hospitals and 5387 in rural hospitals. Out of the above hospitals and dispensaries, those providing Indian System and medicine consist of 29 Government hospitals and 158 Government, dispensaries. At the end of the Sixth Plan there are 4 mental hospitals with a bed strength of 601.

Other Programmes

9.3.3.6. The process of rapid industrialization in the last three decades in the State has led to rise in factory employment. Average number of workers employed daily in the factory sector in the State stood at 6.68 lakhs accounting for 9 per cent of the factory employment in the country. As a measure of social security and for the welfare of labourers, the scheme of Employees State Insurance is under operation in the State. Under this scheme, a network of hospitals, dispensaries and diagnostic centres have come into existence providing services for medical sickness, maternity disablement, dependant benefits, etc., to 6.15 lakh industrial workers in the State. At the end of the Sixth Plan there are 7 hospitals with 1025 beds, 22 diagnostic centres and 117 dispensaries including 3 mobile dispensaries. Over and above this, 808 beds have been reserved in other hospitals for industrial workers under E. S. I. S.

9.3.3.7. The State, at the end of 1984-85 has two full fledged Public Health Laboratories at Vadodara and Bhuj. On a small scale, one public health laboratory has been started at Planpur. During the Sixth Plan period, the Municipal Corporations of Ahmedabad, Vadodara and Surat have also established fully equipped public health laboratories.

9.3.3.8. A full fledged Vaccine Institute producing antirabbic Vaccine has also been started at Vadodara.

Communicable and other Diseases

9.3.3.9. The Communicable diseases programmes also made significant progress in the State during the last 34 years.

National Malaria Eradication Programme (NMEP)

9.3.3.10. The programme was launched in 1953 as a national programme to cover the malarious areas of the country and control malaria. The success achieved initially emboldened the programme administration at the national level to modify the objective from control to eradication. The State also adopted this objective. A number of major snags developed in the implementation in 1965, 15,000 malaria cases were reported through the surveillance activities. Instead of getting rid of malaria once and for all by 1966, as it was envisaged, a significant number of population got back to the consolidation or attack phase. In 1977, the eradication plan was modified. The modified plan of operations aimed at making strenuous efforts to contain malaria so as to prevent deaths, reduce the degree of morbidity due to malaria, and to maintain industrial and farm production by antimalarial measures. Under the modified plan of operations there has been a decline in the incidence of malaria.

The following table gives comparative data for the year 1983 and 1984.

Year	Blood Slides Collected.	Annual Blood Examination rate (ABER)	Malaria Positive Cases	Annual Parasite Index (API)	Plasmodium Falciparum	Slide positivity rate (SPR)	Slide Falcium rate (SFR)
1983	4549981	12.9	280060	7.9	300077	6.1	0.66
1984	4233474	11.8	253552	7.0	29606	5.9	0.69

National Filaria Control Programme

9.3.3.11. The Programme was launched in 1956 as a national scheme and was taken up in the State. Filariasis in the State is confined to coastal areas of Saurashtra and South Gujarat. 11 Filaria control clinics have been set up to provide protection to the affected population.

National Tuberculosis Control Programme

9.3.3.12. It was estimated that about half of the population of the State (at 1971 census level) was infected with T. B. In 1962, the National Tuberculosis Institute at Bangalore formulated a nationally applicable and socially acceptable tuberculosis programme for India. The sheet anchor of the programme is the District Tuberculosis Centre which is required to organise tuberculosis work in the entire district as an integral part of the general health services. 19 District Centres are functioning in the State with a bed strength of 300 (isolation) beds. Besides, a T. B. demonstration, Training and Research Centre has been established at Ahmedabad during the Sixth Plan period.

Small Pox

9.3.3.13. Small Pox was eradicated in the State by May, 1975. The International Commission appointed for the purpose has examined and issued a certificate that small pox has been totally eradicated in Gujarat State.

National Leprosy Control Programme

9.3.3.14. There is a high incidence of leprosy in the districts of Valsad, Surat, Dangs, Vadodara, Panch Mahals, Junagadh and certain parts of Jamnagar, Rajkot and Sabar Kantha districts. The infrastructure, consisting of 10 central units, and 380 survey education and treatment units, has been established under the programme in the State.

National Programme for Prevention of Visual Impairment and Control of Blindness

9.3.3.15. There is a high incidence of Trachoma in Saurashtra, North Gujarat and Kachchh areas. A programme to establish ophthalmic services in the District hospitals and primary health centres was taken up in 1978-79 under the National Programme. For the purpose of promoting the programme, trained ophthalmic assistants were to be obtained and medicines and equipment were to be supplied. 5 hospitals and 210 PHC's were covered under the programme. Besides, 4 Upgraded Ophthalmic units and 4 mobile units have also been established in the State.

Drugs Control and Prevention of Food Adulteration

9.3.3.16. Effective steps to tackle the problem of Drugs and Food adulteration received attention during the period under review. The Drugs Control Administration enforces the following Acts :—

1. Drugs and Cosmetics Act, 1940.
2. Drugs and Magic Remedies Act, 1954.
3. Drugs Price Control Order, 1979.
4. Poison Act, 1919.
5. Prevention of Food Adulteration Act, 1954.

9.3.3.17. Certain branches of Drugs Administration were strengthened during the period of Sixth Five Year Plan to implement the above Acts and monitor the quality of food articles and drugs manufactured in the State. Drugs Control Laboratory at Vadodara started in 1956, was expanded and provided with testing equipment and suitable technical staff in 1961. Offices of the Drugs Inspectors have been opened at all district head quarters and 9 Circle offices have been established.

9.3.3.18. The Drugs Control Administration during the period also imparted education and training to personnel needed for management of drugs control administration and for compounding and dispensing of drugs on prescription provided under the Pharmacy Amendment Act. In this connection, a centre for conducting diploma course in Pharmacy is started at Government Polytechnic Rajkot, with an intake capacity of 60. The degree course at Vallabh-Vidhyanagar and diploma course at Bardoli with an intake capacity of 30 students in each started by managements in private sector. All the unqualified pharmacists eligible for training have been imparted training. 174 Food Inspectors and sanitary Inspectors have been imparted Service Training of which 123 personnels in the District Panchayats have been trained in the field of Food adulteration and its prevention.

Medical Education, Training and Research

9.3.3.19. With a view to conform to the requirements of the Medical Council of India, teaching institutions have been strengthened with regard to beds, faculty, etc.

Similarly the requirements of the Nursing Council pertaining to the teaching hospitals and teaching colleges received due attention.

9.3.3.20. Education and training facilities by 1984-85 are :—

Government Medical Colleges	Intake Capacity	No. of beds	
B. J. Medical College, Ahmedabad	210	1615	(Civil Hospital, Ahmedabad)
Medical College, Vadodara.	140	1010	(S. S. G. Hospital, Vadodara)
Medical College, Jamnagar	125	870	(I. G. Hospital, Jamnagar)
Medical College, Surat	100	735	(Civil Hospital, Surat)
Total ..	575	4230	
Dental College	50	20	(Dental Hospital)

9.3.3.21. Besides, one medical college run by Municipal Corporation, Ahmedabad with an intake capacity of 100 students also caters to the needs of medical Education in the State.

9.3.3.22. Other teaching and training facilities made available since 1978 to 1984 are as under :—

Course	No. Admitted			
	1978	1980	1982	1984
1	2	3	4	5
1. General Nursing ...	260	316	355	413
2. B. Sc. Nursing ...	22	21	16	22
3. Diploma in Nursing ...	10	13	16	14

Over and above 128 students were admitted in General Nursing schools during 1984 in the course of General Nursing. At the end of Sixth Five Year Plan, the State will have the following trained Nursing Staff :—

	Number
1. General Nurses (including B. Sc. Nursing and Diploma in Nursing)	6,095
2. Auxiliary Nurse Mid-wives (including midwives and health visitors)	10,822
Total —	16,917

Ayurvedic/Homeopathy

9.3.3.23. There are 4 Government and 4 Private colleges with an intake capacity of 244 affiliated to the Ayurvedic University. There are 5 Homeopathic colleges with an intake capacity of 310.

An Assessment of the outcome of activities undertaken in the health plan :—

9.3.3.24. Developments during the last three decades in the field of health services show significant improvement in the health status of the people of the State. The simple yardsticks of death rate, life expectancy at birth and infant mortality indicate the improvements that have taken place. The mortality rate has declined from 24.9 per thousand of population in 1941-50 to an estimated 13.3 in 1980 per thousand. The life expectancy has gone up from about 40 years in 1951 to about 52 years by 1981. The infant mortality has come down from 156.4 per 1000 live births in 1970 to 117.2 in 1979. The table below gives the impact of different health measures of the past three decades on the urban and rural population.

Birth rate per '000		1970	1979	1980	1981		
I	Combined	41.2	35.7	35.0	34.6		
II	Rural	42.9	37.1	36.6	36.0		
III	Urban	35.3	31.6	30.8	28.6		
Death Rate per '000							
I	Combined	18.1	13.1	13.0	12.1		
II	Rural	19.1	13.8	13.7	12.6		
III	Urban	14.8	10.9	10.8	10.1		
Family Planning							
No. of births averted due to various methods of family welfare		'000					
		1960	1970-71	1980-81	1981-82	1982-83	1983-84
		4.7	481.3	3098.7	3512.9	3952.2	4420.5

9.3.3.25. Some other performance indicators also point to improvement in the health services. The Doctor population ratio has improved from 1 : 4184 in 1964 to 1 : 2287 in 1983-84. Similarly the bed population ratio has also declined to 1 : 1811 in 1964 to 1 : 1000 in 1982.

9.3.3.26. Despite the expansion in health services and composition thereof, access to health and related services leave much to be desired. Although there are now many more hospitals and medical professionals preventive and promotive health services have not sufficiently developed to reach the large mass of rural population. Although there is a substantial improvement in the Health services in the last three decades, the infant mortality rate, death rate and birth rate of the State are still one of the highest in the Country. The current level of IMR in rural areas and urban areas show a wide disparity. It is currently estimated at 121 per 1000 live births in rural areas while the corresponding level in urban Gujarat is 61. The live birth rate in rural areas of the State in 1982 was 35.0 per thousand of live births while in the urban areas the corresponding figures was 30.5. Similarly in the case of death rate, the figures in rural and urban areas in 1981 were 12.3 and 8.3 respectively.

9.3.3.27. Keeping in view such deficiencies and inadequate health and medical facilities in the rural and remote areas of the State, the programmes for the period of Seventh Five Year Plan have been formulated.

9.3.4. Perspective of Development

9.3.4.1. The perspective development plan for health for the next 5 years has taken note of the gaps in the existing system, and the national commitment to provide health for all by 2000 AD. The objectives of the health plan for the next five years, therefore, will be—

1. To provide improved health care delivery system to make primary health care services available to all by 2000 AD.
2. To make people conscious of their health needs and to plan and participate in the health programme.
3. To improve the standards of environmental sanitation and personal hygiene leading to reduction in incidence of diseases and provide healthier life.
4. To improve maternal and child health services.
5. To create awareness about the need and advantages of small family and encourage practices towards that end ; and
6. To control/eradicate common communicable and infectious diseases.

9.3.4.2. To translate these objectives into action, different programmes have been proposed during the period of Seventh Five Year Plan.

9.3.5. Programme for Seventh Plan

9.3.5.1. An outlay of Rs. 10314 lakhs is provided for the Seventh Five Year Plan as detailed below :—

		(Rs. in lakhs)
Programme	1	Outlay 1985-90 2
1.	Direction and Administration	32.00
2.	Medical Relief	480.00
3.	Training	
	(a) Health	14.00
	(b) Medical	37.00
	(c) Medical Education	9.00
	Sub-Total	60.00
4.	Medical Education and Research	1197.00
5.	Indigenous System of Medicine. Including MNP-Ayurved	300.00
6.	Employees State Insurance Scheme	60.00

7.	Prevention and Control of Communicable and other diseases	2837.00
8.	Minimum Needs Programme Excluding MNP Ayurved	4792.00
9.	Other Programmes (including School Health Programme)	110.00
10.	Drugs Control	292.00
11.	Central Medical Stores Organisation	92.00
12.	Family Welfare Programme (State Plan)	62.00
	Total ..	<u>10314.0</u>

(i) Direction and Administration

(a) Strengthening of Directorate of Health

9.3.5.2. With the increase in work-load on the Health as well as Medical and Medical Education sides, the Directorate of Health needs to be strengthened. The Government of India have also recognised the need of strengthening the Health and Medical Directorate. It is proposed to decentralize suitably the functions and activities under Medical, Health and Family Welfare with appropriate staff so as to supervise and monitor all the activities more efficiently and achieve desired results.

(b) Organisation and Method Cell

9.3.5.3. The Directorate of Health and Medical Services has gradually been expanded to cope up with increased activities. To achieve optimum output it is proposed to develop an Organisation and Methods System in the Seventh Plan.

(c) Centralised Recruitment Committee Cell

9.3.5.4. The need of strengthening of staff for the Centralized Recruitment Committee which recruits different functionaries required for performing variegated activities under Health and Medical is genuinely felt. For this purpose a separate Cell for Staff selection Committee is proposed. Rs. 32.00 lakhs have been provided for the Seventh Plan, 1985-90 for the activities under Direction and Administration.

(ii) Medical Relief

9.3.5.5. It is contemplated to offer wider curative services at the district and taluka hospitals which would include 24 hours casualty services, medico legal-facilities, radiology, pathology, ambulance, diagnosis treatment in orthopaedic, ENT, anaesthesia, psychiatry, skin and V. D. For offering all these services satisfactorily bed strength is proposed to be increased in all the hospitals to reach 200 beds in each district hospital by the end of Seventh Plan. Besides, Visnagar, Patan, and Morbi hospitals would be provided with more beds to meet with the increased demand for indoor treatment. Now Civil Hospitals at Vansda and Anand are proposed to meet with the increasing demands for medical services. It is envisaged to expand mental health facilities also. Mental Health care services

in the districts are proposed to be provided with 10 beds from the existing beds in the Civil Hospitals. X-Ray facilities are proposed to be provided in the Government Hospitals at Adipur, Jetpur and Umarpada. Laboratory facilities will be made available to 11 hospitals. Ambulance services will be provided at Adipur and Wadhavan. 19 ambulances among the existing 91, which have become obsolete will be replaced by new ones. Specialist Services will also be provided at District/Taluka hospitals to reduce the load on the hospitals at Ahmedabad, Vadodara, Surat and Jamnagar. New Blood banks will be established in 10 districts by converting the blood tapping centres. The provision for drugs will be stepped up so that indoor and outdoor patients have better and quality treatment. An outlay of Rs. 480 lakhs is provided for the implementation of schemes on medical relief in the Seventh Five Year Plan.

(iii) Training

(a) Health

9.3.5.6. A Public Health Training Institute is proposed to be established at Vadodra to provide health education for the Doctors who are rendering public health services in the State. Its establishment would release the dependence of the State on the Public Health Institute, Calcutta for health education for the employed doctors. The Institute will be able to impart training to a large number of doctors in service who have not been able to get Diploma in health for want of seats in the Public Health Institute at Calcutta. The facilities in the Institute would also be used for other categories of staff concerned with Public Health. A provision of Rs. 14 lakhs is made for the purpose for the Seventh Five Year Plan.

(b) Medical

9.3.5.7. On medical side, there are a number of construction works which have spilled over into Seventh Five Year Plan. In order to provide and promote curative medical services a steady supply of para-medical staff is necessary. As the State is experiencing acute shortage of nurses, it is proposed to replenish the training strength in the nurses training schools (General). One nursing school will be started at Surendranganar. A sum of Rs. 37 lakhs is provided in the Seventh Plan for training facilities under medical section.

(c) Medical Education

9.3.5.8. On Medical Education side, it is proposed to diversify the courses at Jamnagar and Vadodara medical colleges to include degree and diploma course in Physiotherapy at Jamnagar and Vadodara respectively. A provision of Rs. 9 lakhs is made for the Seventh Five Year Plan.

9.3.5.9. Thus, an outlay of Rs. 60 lakhs is provided for Seventh Five Year Plan for establishing and strengthening training facilities in the State.

(iv) Medical Education and Research

9.3.5.10. The Seventh Five Year Plan seek to cope up with the gaps in Medical Education. The items consist of the following :—

(1) Facilities for Orthopaedic treatment is being expanded to meet the increasing demand by establishing a 200 bedded independent hospital.

(2) All the teaching hospitals in the State would be provided with modern Communication system, so that emergencies can be met instantly.

(3) A mental health institute will be established for delivery of the modern mental health care to the community, to impart training to mental health personnel for proper care and management. Besides, Psychiatrists, Social Workers, Clinical Psychologists and other general medical and para-medical personnel are also proposed to be trained.

(4) For adequate treatment 20 more beds will be added at the paraplegia centre, Ahmedabad. The centre would also be provided with an artificial limbs division.

(5) The institute of kidney diseases would be strengthened by providing building staff and equipments so as to meet with demand for both treatment and training.

(6) The functions of the Cardiology institute at Civil Hospital, Ahmedabad, will be expanded so that it can offer treatment of Cardiac cases by provision of cardiac nuclear imaging system for measuring of cardiac functions, provide a pace maker bank, establishing mobile coronary care unit, special facilities for carrying out major Cardio Vascular operations etc.

(7) To convert the present nursing schools attached to Teaching Medical College into General Nursing and Mid-Wifery Degree Course Schools and upgrade post-basic nursing diploma by the College of Nursing Ahmedabad into M. Sc. (Nursing).

(8) To provide staff, equipment, and building at all the Medical Colleges and attached hospitals according to the norms laid down by the Medical Council of India, Nursing Council of India, Dental Council of India and the concerned universities. Seats in Government Dental College will also be increased to 60 from the existing 50 seats.

(9) To establish a Post-graduate Institute on the lines of All India Institute of Medical Sciences and Institute of Post-Graduate Medical Education and Research, New Delhi, Chandigarh, Calcutta, Pondicheri and Varanasi to train super specialties in haemnatology, rheumatology, endocrinology, immunology, unclear medicin neuro-surgery, gastroenterology, etc., which have developed in last few years.

(10) To start a medical teachers training centre to promote training of medical teachers in application of latest medical science and technology and in related fields, and

(11) To establish advance centre for virology with a well equipped laboratory for in virology testing.

An outlay of Rs. 1197 lakhs is provided for implementing the above schemes during the Seventh Plan period.

(v) Indigenous system of Medicine, Ayurveds and Homeopathy

9.3.5.11. The indigenous system of medicines and Homeopathy play a vital role in the delivery of health care services to the people in the State. They have become more popular especially in the rural areas. It is envisaged to augment health care services in the indigenous system of medicines and homeopathy by establishing 100 Rural Health Centres (Ayurvedic) and 20 Homeopathic Dispensaries in the Seventh Plan. The efforts would include further expansion of delivery of health care services and dovetail them with the efforts of health care delivery system, manpower development, strengthening of the Directorate for proper direction and administration of health care services and education in indigenous system of medicines and homeopathy and production of raw materials for manufacture of drugs and proper arrangements for the collection of the same.

9.3.5.12. The teaching hospitals in Ayurved will be strengthened with the standards laid down by CCIM. It is proposed to step up in-service training programme for the development of homeopathy and acupuncture system. The spill over construction works of buildings at Ahmedabad and Vadodara Colleges are proposed to be completed. Construction of college building and at Junagadh, hostel building at Bhavnagar and Junagadh and OPD building at Vadodara is proposed in the Seventh Plan.

9.3.5.13. Rural Health Centres are proposed to be established. Expansion of Ayurved hospitals and botanical gardens is proposed. Two DAOs would be provided with vehicles for better administration. In the tribal areas it is proposed to :—

- (i) Open 10 new Ayurvedic dispensaries ;
- (ii) Construct 4 dispensary buildings,
- (iii) Open one 10 bedded Ayurved hospital and construct two hospital buildings
- (iv) Construct staff quarters for botanical garden and to provide tube well (at two gardens) ; and
- (v) Provide Jeep for collection centre at Khedbrahma.

9.3.5.14. A Panchkarma section would be opened at Anklav Ayurved Hospital. An Ayurved OPD will be started at one of the Civil Hospitals.

9.3.5.15. An out-lay provided for implementing the schemes in this regard is Rs. 300 lakhs in the Seventh Plan.

(vi) Employees State Insurance Scheme

9.3.5.16. The Employees' State Insurance Scheme is a major social security measure in operation in the State. At present there is a daily average factory employment of nearly 6.8 lakhs. Looking at the tempo of industrialisation that has taken place so far, it can be easily predicted that faster development is likely to continue in the coming years. The factory employment is likely to be around 10 lakhs by the end of the Seventh Five Year Plan. Besides, the increase in the number of factory workers which this programme will have to take care of, there is a possibility of the benefit of the ESI Scheme being extended to industrial employees earning income beyond Rs. 1000 but upto Rs. 1600. This situation will call for augmentation of health and medical care services to cover the new members. The Employees State Insurance Scheme has, therefore, been formulated so as to meet with such growing needs.

9.3.5.17. It is envisaged to extend the benefit of the scheme to 20 more industrial centres taking the total number of beneficiaries under the scheme to 9.34 lakhs in the State. The proposals also include :—

- (a) Starting of additional 7 new hospitals and 20 dispensaries.
- (b) Construction of new dispensary buildings or procuring suitable buildings for housing the dispensaries.
- (c) Creation of indoor treatment facilities at the rate of 4 indoor patients per 1000 insured persons. This will be done either by reserving beds at Government/Private hospitals or building hospitals for the purpose.
- (d) Starting one more nursing school so as to meet the rising demand of qualified persons in the hospitals/dispensaries.
- (e) Increase in facilities in the existing hospitals and dispensaries to cover M CH Services, and diagnostic curative services for occupational diseases, diagnostic diseases in addition to TB, Skin and Venereal Diseases, etc.

(f) Establishment of a Central store for procuring and supplying medicines, linen, instrument, equipment, stationery, etc., to the dispensaries and hospitals covered under the scheme.

(g) Training of para medical staff working under the scheme so that their efficiency can be geared up.

(h) The panel system for insured persons will be replaced as far as possible by service system by opening new dispensaries ;

(i) Starting of additional 9 preventive mobile care units to visit each factory with insured persons and provide preventive medical and health care and family planning education and service to the visiting workers. The mobile units would also promote M.C.H. with X--Ray machines, testing facilities, etc. The unit will be incharge of 4 doctors, one X--Ray Technician, one Laboratory Technician, one E. C. G. Technician two staff nurses, one senior and one junior clerk, one dresser and four Class IV employees.

(j) To accelerate the programme, establishment of a separate cell for family planning.

(k) Maternal and child care services will also receive special attention in all the dispensaries run under the scheme, family counselling will be provided to the insured persons and their family members. The family members would be educated about the importance of cleanliness, diet, immunisation, antenatal and postnatal care of mothers, besides family planning.

(l) Increasing in-service training facilities, so that there is no dearth of trained manpower.

9.3.5.18. An outlay of Rs. 60 lakhs is provided for the Seventh Five Year Plan to implement the Employees State Insurance Scheme for State's, Contribution towards total ESI scheme outlay of Rs. 480 lakhs.

Public Health

(vii) Prevention and Control of Communicable Diseases and Other Diseases

9.3.5.19. Considerable number of people in different areas of the State suffer from TB, Filaria, Goitre, Guinea-worm and Leprosy. To control these diseases, necessary infrastructure has been created, In the Seventh Plan, present activities will be continued to bring the diseases under control ; and in some cases like Guinea-worm and leprosy, eradicate them in the near future. Augmentation of the infrastructure would involve additional staff for controlling diseases, purchase/replacement of equipments and in some cases construction of buildings.

9.3.5.20. Plan programmes on T. B., Filaria, Malaria eradication, guinea-worm, control of leprosy, etc., are being taken up either as fully centrally sponsored scheme or on a sharing basis between the State and the Centre.

Centrally Sponsored Programmes (on Sharable basis)

(a) National T. B. Control Programme

9.3.5.21. This is a programme which is sharable between Centre and State on 50 : 50 basis. Following activities are proposed to be taken up in the Seventh Plan under this programme.

(Rs. in lakhs)

	Seventh Plan Outlay
1 Replacement of vehicles	16.00
2 Introduction of chemotherapy treatment	156.57
3 Staff machines	68.04
4 Equipment for Opening of Culture Laboratory	8.80
5 Construction of T. B. centres Spill over works and isolation Wards and one room at 128 PHCS.	106.59
6 Purchase of equipments and articles.	16.00
	<u>372.00</u>

National Malaria Eradication Programme

9.3.5.22. This programme covers the following aspects for which suitable provisions have been made as under :—

(Rs. in lakhs)

	Outlay 1985—90
1. Malaria Laboratory at PHCS— Construction of rooms for laboratory —	38.00
2. Storage of Insecticides	14.00
3. Storage of Insecticides at PHCs.	38.00
4. Replacement of vehicles	38.00
5. Establishment of Urban Malaria Scheme	48.00
6. Creation of additional posts of Malaria Supervisors	19.00
7. Entomologist post for Ahmedabad Zone	00.50
8. Vehicles for Entomologists	2.00
9. Residual insecticides (D. D. T. B. H. C. and Malathion spray)	2187.50
	<u>2385.00</u>
Total	2385.00

9.3.5.23. An out-lay of Rs. 2385 lakhs has been provided for the Seventh Five Year Plan as State share.

(c) National Filaria Control Programme

9.3.5.24. In the Seventh Five Year Plan, it is proposed to consolidate filariasis control measures and extend them where they are needed. It is also proposed to enforce antilarval measures. In fulfilment of the above objectives it is proposed to strengthen the staff in these filaria control units. An outlay of Rs.75.00 lakhs is provided for the augmentation of staff as State share.

(d) National Goitre Control programme

9.3.5.25. The Goitre disease in the State is widely prevalent in Bharuch and Valsad. A survey undertaken in 1984 has shown that nearly 37% of population in these two districts is affected by the disease. The disease is the result of Iodine deficiency.

9.3.5.26. The treatment for the disease involves supply of iodised salt and encouraging its consumption. Supply of iodised salt and salt injections in these districts is planned. Tribals, pregnant women and children up to 5 years would be given priority for treatment through injections of iodised salt.

9.3.5.27. For effectiveness of control measures it is necessary to have staff to monitor the incidence of the disease and progress thereunder. The Scheme of Goitre control on 100% CSS is under consideration of Government of India.

(e) Guinea-worm Eradication Programme

9.3.5.28. Guinea-worm disease is endemic in several States including Gujarat and it is found in the districts of Banaskantha, Mehsana, Sabarkantha, Panchmahals, Vadodara, Surat, Valsad, Kheda, Bharuch, Ahmedabad, Kachchh, Surendrnagar and Bhavnagar.

9.3.5.29. The disease is transmitted by drinking contaminated water. It is mostly confined to rural areas where the drinking water is not protected. Surveys conducted in this connection estimate that about 48,000 people are affected by the disease.

9.3.5.30. The present administrative machinery is very inadequate for the implementation of this programme. It is, therefore, proposed to strengthen the present administrative machinery for looking after the implementation of this programme.

(f) Leprosy Control (State Plan)

9.3.5.31. There are Five Leprosy Hospitals with 825 beds in the State, of which Meghaji Patharaj Leprosy Hospital at Bhavnagar Parvatibai Leprosy Hospital at Surat, are under private management with 450 beds strength. As these hospitals are playing useful role in the treatment of leprosy patients in the State, they are required to be strengthened under State Plan. In this connection necessary G. I. A. to private Hospitals will be provided and Government hospitals will be strengthened by providing sufficient staff to cope up with the increased workload. Rehabilitation of leprosy patients is also an important task requiring special attention by providing vocational training etc. In view of the above purpose necessary provision will be made under State plan over and above development of infrastructure for treatment of leprosy patients in the other areas of the State proposed to be created under centrally sponsored scheme.

(viii) Minimum Needs Programme

9.3.5.32. The Minimum Needs Programme has been providing the weaker sections of the society in the rural areas, among other services, health care services

from the beginning of the Fifth Plan. It has contributed to the upgradation and expansion of health infrastructure in the rural areas and has helped in clearing to a large extent, the back-log of construction work of sub-centres buildings and staff quarters of existing Primary Health Centres. It is now envisaged to have:-

- (i) One Sub-Centre per 5000 of population in non-tribal area and per 3000 of population in tribal and hilly areas or in sparsely populated areas.
- (ii) One Primary Health Centre per 30,000 of population in general area and per 20,000 of population in hilly, tribal areas and sparsely populated areas.
- (iii) One CHC for a population between 80,000 to 1,20,000 depending on the population covered by Primary Health Centres under its jurisdiction.
- (iv) One male and one female health assistant at Primary Health Centre.

9.3.5.33. During Seventh Five Year Plan, with regard to targets set for PHCs/SHC and Community Health Centres, mostly the existing dispensaries would be upgraded to PHCs and the existing Referral Hospitals and Taluka Hospitals would be upgraded to Community Health Centres and New PHCs and CHCs would be opened in exceptional conditions. The key targets envisaged under MNP in the Seventh Plan, 1985-90 are as under :--

Item	Targets for Seventh Plan
Sub-centres	1250
Sub-Centre (Construction part only)	900
Subsidiary Health Centres	690
Primary Health Centres	}
Community Health Centres		100
Multipurpose workers to be trained.	580
Health Supervisors for MPW	145
Health Guides	6000

9.3.5.34. Another important component of MNP is the supply of medicines for curative services. According to the norms in force presently, a provision of Rs. 12,000 is being made for the purpose for each P. H. C. on a uniform basis. With the rise in the cost of medicines, this amount is found to be inadequate; It is, therefore, proposed to increase the provision to Rs. 20,000 per P. H. C. and for the sub-Centres, Rs. 2,000 for each sub-Centre will be continued on the non-Plan side.

9.3.5.35. An outlay of Rs. 4792 lakhs is provided for implementing Rural Health Programme under MNP in the Seventh Plan.

Rural Health Centres (Ayurvedic)

9.3.5.36. Besides above schemes under allopathetic system of medicine, the "Working group on ISM as Homoeopathy" constituted by the Government of India for Seventh Plan has recommended to establish a Rural Health Centre (Ayurvedic) for every 10,000 population. It is, therefore, proposed to establish 100 new rural health centres in the State during the Seventh Plan period. The centres will provide curative as well as preventive and promotive health care services. An out-lay of Rs. 50 lakhs is proposed for this programme during Seventh Plan.

(ix) Other Programmes :

(a) Expansion of Vaccine Institute at Vadodara

9.3.5.37. The Vaccine Institute set-up in the Third Five Year Plan with the object of providing anti-Rabic Vaccines was strengthened in subsequent plan periods and its activities were diversified with a view to produce Cholera Vaccine and Titanus Toxoid. Potentials to manufacture anti-Diphtheria vaccine has also been created. It is proposed to expand the production activities of the vaccines now produced and start production of T. T. DT and DPT. An outlay of Rs. 57.50 lakhs is provided for the expansion of the Institute for the Seventh Plan.

(b) Health Statistics

Statistical Cell at the District Level offices

9.3.5.38. Incidental to the administration of delivery of the health and medical care services, substantial information as well as data are generated at the level of Primary Health Centres, hospitals, dispensaries and other institutions in the field. Presently this information and data flow directly into the State Bureau of Health and Medical Service where it is processed and the important ones, helpful in planning policy making and decision making are published in the publication "Health Statistics." However, this data is published for the State as a whole and regions sub-Regions do not form part of it. The Intelligence at regional levels would help in proper planning of projects and development of discretionary and incentive outlays placed at the disposal of the District Planning Boards. This in turn would facilitate effective monitoring and management, information system and prove useful not only in the planning process but also in the implementation of various health programmes. It is, therefore, proposed to strengthen machinery for health statistics in the Seventh Plan for which an out-lay of Rs. 20.00 lakhs is provided.

(c) Health Education Programme

9.3.5.39. Various efforts that are being made up in the field of health will not yield full results unless they are backed up by health education. Such an education if it is to produce desirable results, should be taken up at all levels more especially at adult and family levels and through all medias. Much can be achieved through health education of patients, their care-takers, and the people at large. Realising the importance of education both formal and non-formal, the following programmes have been formulated.

1. Establishment of District Health Education Units

9.3.5.40. The multi-purpose health workers and the multi-purpose health supervisors, among other things, are required to educate the people. Many health problems prevailing now are the result of poor environmental sanitation, malnutrition communicable diseases, etc. The incidence of illness/diseases relating to the above, can to a great extent be reduced by motivating the people about them and the preventive

measures can be taken to keep them out. Whether the multipurpose workers and their supervisors are educating the people and what methods should be used by them to make people conscious of these, how far are the multi-purpose workers and their supervisors are educated in matters they have to educate about etc., all these need to be continuously looked into. At present there is no authority either at the peripheral or district level to look into these questions. To fill up this void, the District Health Education units will be established in the States.

2. Hospital Health Education

9.3.5.41. The hospitals not only attract patients but also their friends and relatives who come to attend them and cheer them. This population could be the target of education, because they are highly receptive to what the doctor and other medical staff in the hospital tell them, during their visits and stay in the hospitals. It is proposed to introduce health education for this group of people in all the Class-I hospitals in the State as part of the hospital management administration. Health Education therefore is proposed to be imparted to the target group through audio-visual and other communication medias.

Health Education Material in Community Health Centre

9.3.5.42. The best educators in health, are the field workers like Health guides, Dais, MPWs etc., delivering health services and the best target group for them are the people amongst whom they live. These field workers would be able to communicate better if they are themselves adequately oriented in Health Education from time to time. Their education could be through the medias like, films, slides, exhibitions, workshops, etc. For this purpose, it is proposed to include the above project for implementation in the Seventh Five Year Plan. All the workers belonging to the Community Health Services will be made conscious of measures and facilities. Government are offering to the people for the improvement of their Health Each Community centre will be provided with communication medias like projectors, films, slides, etc.

Strengthening State Health Education Bureau

9.3.5.43. The State Health Education Bureau was established in the year 1962 with the object of educating the people about matters connected with health and the services that are being provided by the State in this regard. The Bureau's work comprises planning, health education, production of health education, matyas, training, research into health education etc. In the fulfilment of national goal of "Health for All by 2000 A. D.". The Bureau has a very important role to play. The Bureau will be expected to supervise the district health bureaus, which are proposed to be established during the Seventh Five Year Plan. Bureau will also impart education to educators of people. The Bureau will be strengthened.

Based Production Centre

9.3.5.44. With the spread of television which is expected to reach about 70% of the population shortly, Health Education through television needs to be under taken. Interesting programmes could be produced to educate the people in matters concerning their health and how to prevent illness and diseases. For this purpose, production of video cassettes covering the subjects of Public interest in Health will be necessary. The video cassettes can be used for telecasts in co-operation with Door-darshan.

9.3.5.45. Under the scheme of "Health Education Programme" an outlay of Rs. 20 lakhs is provided for the Seventh Five Year Plan.

(d) School Health Services

9.3.5.46. It is a fact that today's children are the citizen of tomorrow. It is necessary therefore to provide School Health Services to the children in rural as well as urban areas. These services comprise the following :—

- Promotive school health services which includes Mid-day-meal, nutrition and health education.
- Preventive school health services which will include immunisation against childhood diseases.
- Early detection of abnormalities for which it is absolutely necessary that periodical medical check-up should be provided to the school going children.
- Correction of defects and rehabilitation. It is not adequate that medical abnormalities are detected but it would be very necessary that these defects are corrected and facilities are provided for rehabilitation of these children.

9.3.5.47. The above services are proposed to be expanded and strengthened so as to cater to the felt needs in respect of school health education and school health services. An outlay of Rs. 20 lakhs is provided for the Seventh Five Year Plan.

(x) Drugs Control and Prevention of Food Adulteration

9.3.5.48. In the formulation of the Seventh Plan, priority has been given (1) to tightening up of enforcement machinery to administer the Acts, looked after by the Drugs Control Administration and (2) construction of buildings including completion of the on-going works and manpower development. The State has at present 1300 drug manufacturing units and 7000 sales units. It is expected that 500 more units manufacturing drugs and 3000 selling units are likely to come up during the Seventh Five Year Plan. As per norms prescribed by the Government of India, the inspection of the establishment had to be carried out twice in a year. The enforcement machinery is inadequate. The inspection staff will therefore be strengthened during the Seventh Five Year Plan to conform to the norms prescribed by Government of India. It is also proposed to strengthen the administrative machinery for enforcement of provisions of the Food Adulteration Act, 1954. 20 staff quarters are proposed to be constructed at Vadodara. In-service training is proposed to be given to the staff for the enforcement of different Acts. Consequent to the amended Pharmacy Act becoming operative from 1-9-1984, Diploma Course in Pharmacy is proposed to be started in north Gujarat and an Institution for Degree Course is proposed to be established. For carrying out tests of Drugs and Food, capacity in the laboratories at Vadodara, Bhuj and Rajkot will be increased and one more laboratory with a capacity for testing 5000 samples will be established in north Gujarat. Two mobile laboratories are proposed to be established for carrying out tests in the interior areas.

9.3.5.49. A provision of Rs. 292 lakhs is made for implementing the above schemes in the Seventh Five Year Plan.

(xi) Conversion of CMSG into a Corporation

9.3.5.50. This organisation at present procures medicines and equipments needed by Government hospitals and insecticides for eradication of malaria under the "Malaria Eradication Programme", and supplies them to the hospitals and agencies concerned. It also keeps a buffer stock of medicines to meet requirements during emergencies. The purchases by Central Medical Stores Organisation are regulated by the policies, rules and procedures applicable to Central Stores Purchase Organisation of the State.

9.3.5.51. The operations of the CMSO in the years to come are likely to grow considerably. The purchase of medicines and equipments alone is likely to reach Rs. 15 crores during the Seventh Plan.

9.3.5.52. CMSO needs to be made commercial in character and its work diversified to include manufacturing of common drugs which while ensuring standards can also give benefits of economics of scale.

9.3.5.53. It is, therefore, proposed that the CMSO may be converted into a Corporation in the Seventh Five Year Plan. The Corporation would undertake manufacturing activities, have a network of distribution points, a laboratory for testing medicines and drugs to ensure quality.

Buildings for office and godowns

9.3.5.54. CMSO is at present housed in two rented premises. One is used for the office and the other as a depot. It is proposed to have a building at Gandhinagar, both for office as well as godowns and having facilities of cold storage, refrigerator, deep freezers, etc.

9.3.5.55. An outlay of Rs. 92 lakhs is provided for this during Seventh Plan, 1985-90.

(xii) Family Welfare Programme (State Plan)

9.3.5.56. Family Welfare Programme is a Centrally Sponsored Scheme and fully financed by the Centre. In order to have better information for management of the programme including monitoring and implementation more efficiently, it is proposed to provide Data entry machines with necessary supporting staff at district level, so as to have timely and comprehensive feed back and data flow to and from the Micro Computer Centres proposed to be established at district level by Bureau of Economics and Statistics and Computer Centre of Government of Gujarat. The data generated at district level would be of immense help to this important national programme in administration, adjusting policy issues and taking decisions related to the programme.

9.3.5.57. In addition to the various incentives provided in the Centrally Sponsored Programme, etc. the State Government intends to introduce certain innovative incentive schemes for popularising various family welfare methods.

9.3.5.58. An outlay of Rs. 62 lakhs is provided for this purpose, in the Seventh Plan.

(xiii) Centrally Sponsored Schemes

(1) Prevention of Visual Impairment and Control of Blindness

9.3.5.59. This being one of the important national programmes, Government of India provides full Central assistance for the scheme. An outlay of Rs. 858.59 lakhs is envisaged for the Seventh Plan. The details are as under.--

(Rs. in lakhs)	
Sub-Sector	Outlay for Seventh Plan
1	2
Medical	235.45

1	2
Medical Education and Research	275.00
Health	348.14
	Total 858.59

(a) Medical

9.3.5.60. Under this programme 15 ophthalmic units at District Hospitals in the State were upgraded in earlier Plan periods. It is proposed to expand the facility in other District Head Quarter Hospitals and also to continue and maintain the existing ones during Seventh Plan period 1985-90.

(b) Medical Education and Research

9.3.5.61. In order to provide sophisticated services in the field, it is proposed to further upgrade the ophthalmic services in all the Medical Colleges and attached Teaching Hospitals/Institutes during the Seventh Plan. The upgradation of services envisage the provision for necessary staff, buildings equipments, etc.

(c) Health

9.3.5.62. As per the guidelines of Central Government this scheme is being implemented under this sub-Sector and has covered 210 PHCs under this programme. It is proposed to cover all the PHCs/SHCs existing as well as proposed to be established during the Seventh Plan and provide necessary staff equipment etc., for treatment of minor eye ailments.

2. Reorientation of Medical Education

9.3.5.63. All the four Government Medical Colleges have adopted 3 PHCs each for providing field training to the medical students and treatment to the patients in rural areas. This scheme is a partially Centrally Sponsored Scheme to provide necessary buildings such as operation theatre, seminar hall, hostel and residential quarters at each of 12 PHCs.

9.3.5.64. An outlay of Rs. 100 lakhs is envisaged as a central share (50%) for the implementation of the scheme. A provision of Rs. 100 lakhs is made in the State's Seventh Plan, 1985-90.

STATEMENT

Schemewise outlays for the Seventh Five Year Plan, 1985-90

(Rs. in lakhs)

Sr. 1	Name of the Scheme 2	Outlay 3
I. Direction and Administration		
1.	HLT-1 Strengthening of Directorates (Health, Medical and Medical Education)	32.00
Sub-Total I :		32.00
II. Medical Relief (Medical)		
2.	HLT-2 X-Ray Services to Hospitals	
3.	HLT-3 Ambulance Services	7.60
4.	HLT-4 Strengthening of District Hospital and increase of beds in District Hospital	209.60
5.	HLT-5 Strengthening of Taluka Hospital and increase of beds in Taluka Hospitals.	112.50
6.	HLT-6 Staff Quarters in District Hospital	7.60
7.	HLT-7 Staff Quarters in Taluka Hospital	6.00
8.	HLT-8 B. T. S. Centres	1.20
9.	HLT-9 Mental Health Units in District Hospital	63.50
10.	HLT-10 Expansion of Mental Hospital at Jamnagar.	7.00
11.	HLT-11 Improvement of Nursing Care in Hospital	40.00
12.	HLT-12 Addl. Cl.-III and IV Technical Staff ..	25.00
Sub-Total (M. R. Medical) ..		480.00
III. Training Programme, Medical		
13.	HLT-13 Construction of Hostel for Nurses ..	28.00
14.	HLT-14 Expansion of General Nursing School ..	9.00
Sub-Total (Medical)		37.00

1	2	3
	Health :—	
15.	HLT-15 (i) Certificate Course in H. V. School, Surat Public Health Nurses School ..	4.00
	(ii) Estt. of P. H. Training Institute at Vadodara	10.00
	Sub-Total (Health) ..	14.00
	Medical Education :—	
16.	HLT-16 Training Programme --	9.00
	Sub-Total (M. E.) --	9.00
	Sub-Total—III (Training) ...	60.00
	IV. Medical Education and Research	
17.	HLT-17 Expansion of Medical College and Hospital, Ahmedabad	510.00
18.	HLT-18 Expansion of Medical College and Hospital, Vadodara.	130.00
19.	HLT-19 Expansion of Medical College and Hospital, Jamnagar	130.00
20.	HLT-20 Expansion of Medical College and Hospital, Surat	100.00
21.	HLT-21 Expansion of Medical Education Facilities	80.00
22.	HLT-22 Expansion of Medical Records Organisation	12.00
23.	HLT-23 Strengthening of Libraries in Medical Colleges	18.00
24.	HLT-24 Specialist Units	102.00
25.	HLT-25 Expansion of Dental College and Hospital, Ahmedabad	15.00
26.	HLT-26 Re-orientation of Medical Education	100.00
	Sub-Total-IV (M. E.)	1197.00
	V. Indigenous System of Medicines—Ayurved and Homeopathy	
27.	HLT-27 Expansion of Existing Ayurved College	60.00
28.	HLT-28 Construction of Hostel Building for Ayurvedic College	32.00
29.	HLT-29 Development of Ayurved University, Jamnagar	30.00
30.	HLT-30 Establishment of Homeopathic dispensaries, Colleges and Grant-in-aid.	20.00
31.	HLT-31 Trainees Training.	2.00

1	2	3
32.	HLT-32 Expansion of Ayurvedic Hospitals attached with teaching institution.	13.00
33.	HLT-33 New Financial Assistance to Ayurvedic teaching institution Naturopathy and Unani	15.00
34.	HLT-34 New Financial Assistance to Acupuncture	5.00
35.	HLT-35 New Development of Publication Department	5.00
36.	HLT-36 Opening of Rural Health Centres in Rural/Tribal area (MNP)	35.00
37.	HLT-37 Construction of Rural Health Centre building with staff quarters (MNP)	15.00
38.	HLT-38 Strengthening the directorate and starting of DAOS Offices	10.00
39.	HLT-39 Opening of New Ayurvedic hospitals and Expansion of existing Ayurvedic Hospitals	18.00
40.	HLT-40 Research Botanical Survey and Herbs garden	15.00
41.	HLT-41 Upgrading and Expansion of Pharmacy	7.00
42.	HLT-42 Establishment of Collection Centres	10.00
43.	HLT-43 Opening of Ayurvedic wing in District Head Quarter Hospitals	5.00
44.	HLT-44 Provision of Panch Karma Section in Government Ayurvedic Hospitals.	3.00
	Sub-Total V : Ayurved ..	300.00

VI. Employees State Insurance Scheme

45.	HLT-45 Employees State Insurance Scheme	60.00
	Sub-Total VI : E. S. I. S. : ..	60.00

PUBLIC HEALTH

VII. Prevention of Control of Communicable disease

46.	HLT-46 National T. B. Control Programme	372.00
47.	HLT-47 National Filaria Control Programme	72.12

1	2	3
48.	HLT-48 National Leprosy Control Programme (State Plan)	2.88
49.	HLT-49 National Malaria Eradication Programme	2385.00
50.	HLT-50 National Goitre Control Programme (New)	5.00
	Sub-Total-VII : Public Health ..	<u>2837.00</u>
VIII. Minimum Needs Programme		
51.	HLT-51 Upgrading of PHC into 30 beded Hospital Community Health Centres	1052.00
52.	HLT-52 Construction work of sub-centres (Back log)	450.00
53.	HLT-53 Drugs and Medicines (Establishment of Add. Primary Health Centres)	120.00
54.	HLT-54 Upgrading of dispensaries into PHCs/SHCs and New PHCs	2010.00
55.	HLT-55 Construction work of PHC Building with staff quarters (Back Log)	1160.00
	Sub-Total-VIII (MNP)	<u>4792.00</u>
IX Other Programmes :		
56.	HLT-56 Expansion of Vaccine Institute, Vadodara.	30.00
57.	HLT-57 Strengthening of Health Education, Bureau	20.00
58.	HLT-58 Strengthening of Health Statistics	20.00
59.	HLT-59 Expansion of Health Transport	20.00
	Sub-Total : IX Other Programme	<u>90.00</u>
X School Health Programme :		
60.	HLT-60 Health Services to School going Children, State School.	20.00
	Sub-Total : X School Health Programme	<u>20.00</u>
XI Family Welfare (State Plan)		
61.	HLT-61 Payment of Add. Incentive under F/P	62.00
	Sub-Total XI Family Welfare (State Plan)	<u>62.00</u>

XII Drugs Control

62	HLT-62	Training of Pharmacists	
	(a)	Grant-in-aid to Non-Government Institutions for conducting diploma and Degree Course in Pharmacy	35.00
	(b)	Construction of Building for Government College at Rajkot and augmentation of Staff for degree Course.	3.00
63	HLT-63	Expansion of Food and Drugs Control Administration.	85.00
64	HLT-64	Expansion of Intelligence Branch	3.00
65	HLT-65	Expansion of Food and Drugs Laboratories at Vadodara and Bhuj.	92.00
66	HLT-66	Establishment of Regional Food Laboratory, Rajkot.	7.00
67	HLT-67	Establishment of Regional Food Laboratory in north Gujarat.	30.00
68	HLT-68	Providing of Vehicle in each circle Office	10.00
69	HLT-69	Providing of Mobile Laboratory at Bhavnagar and Surat.	15.00
70	HLT-70	Strengthening of Cell at Magic Remedies and (O A) Act, 1954.	2.00
71	HLT-71	Construction of Staff Quarters at Vadodara.	10.00
Sub-Total : XII Drugs Control			292.00
72	HLT-72	Central Medical Stores Organisation Building for Office and godown.	92.00
GRAND TOTAL :			10314.00

9.4 FAMILY WELFARE PROGRAMME

9.4.1. Introduction

9.4.1.1. Expansion of health facilities eradication of large scale epidemics, introduction of new drugs, modern methods of health treatment, improvement in the production of foodgrains and consequent elimination of famines in the State during the last 35 years have resulted in a rapid rise in population of the State. The population of the State which was 1.63 crores in 1951 went upto 3.41 crores in 1981. The average annual growth rate was around 2.5 percent in the sixties and 2.4 percent in the seventies. The rapid growth of the population in the State has had many adverse effects. It has slowed down the per capita income growth and is under cutting economic progress resulting in increased poverty among the people. It also hinders efforts at improving the quality of life of millions of people.

Objectives and Strategies :

9.4.1.2. With a view to limiting the adverse impart alleviating poverty and improving the quality of life, population control measures are being taken from as far back as 1957 as an integral part of the development plans of the State. For attaining the objective, a strategy to popularise among the public family planning methods like sterilisation, IUDS, oral pills, conventional contraceptives have been adopted in the plans their acceptance have been made purely voluntary. The family Welfare Programme is a fully centrally sponsored programme and the expenditure thereon is fully met by the Central Government. The visible effects of the measures taken by the State Government have been felt as reflected in the declining growth rate of population in the seventies as compared to the sixties as mentioned earlier. The seventh five Year Plan not only aims at controlling the growth of population further by continuing the birth control measures and family welfare measures followed in the earlier plans, but also to accelerate the tempo of activities being undertaken for the purpose.

9.4.2. Review of Progress :

9.4.2.1. Till the mid--1960 the approach to family planning was mostly clinical in character, that is motivating people to accept the small family norm. There was a shift in the family control measure after 1963 from the clinical approach to the more vigorous, extension education approach. Provision of family planning services was also modified to fit into the new approach.

9.4.2.2. A goal to bring the birth rate, from 41 to 25 as expeditiously as possible was also fixed then. Subsequently to achieve the goal, time bound targets were fixed and recognising that a package of services would yield better results, birth control measures were integrated with maternity and child health care services, nutrition, minimum needs and programme to improve the quality of life of the people, and the nomenclature was changed from family planning to family welfare programme.

9.4.2.3. The programme rests on voluntary acceptance of family planning norms and methods by the target groups and the people at large.

9.4.2.4. The family welfare programme in the State has made a steady progress since its inception and more particularly after 1966-67. The performance of sterilisation, IUDS, conventional contraceptive users and oral pills users in Gujarat has

been satisfactory. The table below depicts the comparative performance in the State under this Programme.s---

Year 1	Vasectomy 2	Tubectomy 3	Sterilisation 4	I.U.D. 5	C. C. Users 6	Oral pills 7
1966-67	17,535	22,241	39,776	34,051	30,715	—
1983-84	36,965	1,98,888	2,35,853	1,11,574	3,35,680	38,130
1984-85	44,872	2,11,582	2,56,454	2,14,213	4,60,605	60,700

9.4.3. Performance of the Programme During Sixth Plan, 1980--85:

9.4.3.1. The objective of the programme during the Sixth Plan 1980-85, was to reduce the Birth Rate to a level of thirty five per thousand in 1980 to 30 per thousand of population by the terminal year 1984-85. The methods to contain the growth of population remained the same as in the earlier Plan periods. The following targets were fixed for the Sixth Five Year Plan period :—

1 Sterilisation	8.12 lakhs
2 I. U. D.	2.36 lakhs
3 C. C. Users including O. P. Users	13.76 lakhs

9.4.3.2 Yearwise achievements in the terminal and spacing methods are as under

Year	Sterilisation	I. U. D.	C. C. Use	Oral pills
1980-81	200594	40942	168774	15365
1981-82	237405	45647	164988	16030
1982-83	241519	63127	206310	20383
1983-84	235853	111574	335680	38130
1984-85	256454	213213	460605	60700
1980-81 to 1984-85	1171825	475503	1336357	150600
achievement against target in percentage.	144.3%	201.5%	108.1%	—

9.4.3.3. The performance of the Family Welfare Programme in the Sixth Plan has been remarkable. This is indicated by the couple protection rate which is 46.7% as on 31-3-1985.

9.4.3.4. As a support to the achievement of the targets, following additional facilities are likely to be available at the end of the Sixth Five Year Plan :

(1) Urban Family Welfare Centres and Moveable Dispensaries	16
(2) Post Partum Unit	1

9.4.3.5. The number of couples protected by various methods of Family Welfare Programme in Gujarat is given in the table below :—

Year	Estimated couples in productive age group ('000)	Sterilisation		I. U. D.		Conventional contraceptive		Total
		No.	%age	No.	%age	No.	%age	
1980-81	5434	1695	31.2	92	1.7	92	7.7	1879
1981-82	5689	1835	32.3	102	1.8	90	1.6	2027
1982-83	5843	1964	33.6	112	1.9	123	2.1	2199
1983-84	6000	2115	35.3	162	2.7	206	3.4	2483
1984-85	6122	2311	37.7	258	4.2	291	4.8	2860

9.4.3.6. Immunisation Programme

(Nos. in lakhs)

Sr. No.	Method	1979-80		1980-81		1981-82		1982-83		1983-84		1984-85	
		Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.	Tar.	Ach.
1.	Tetanus Toxoid (TT)	5.0	5.6	6.0	4.9	8.0	6.1	9.0	7.6	9.0	6.2	9.0	6.6
2.	Diphtheria Pertissis and tetanus (DPT)	6.8	10.6	8.5	8.0	10.0	7.5	10.0	7.4	10.0	5.0	10.0	6.7
3.	Diphtheria and tetanus (DT)	16.5	14.7	10.5	11.3	12.0	11.3	12.0	10.0	9.0	6.3	9.5	7.6

9.4.4. Perspective of Development and Programme for the Seventh Five Year Plan.

9.4.4.1. An outlay of Rs. 18,451.79 lakhs for fully centrally sponsored Family Welfare Programme is provided for the Seventh Five Year Plan 1985--90 as detailed below :—

Family Welfare Programme, 1985--90.

Sr. No. 1	Name of the Sub-head 2	Outlay 1895-90 3
(a)	1. State family welfare Bureau	584.35
	2. City family welfare Bureau	22.50
	3. District family welfare Bureau	400.81
	4. Area Development Project (USAid)	625.36
	Total (a)	1633.02
(b)	1. Rural family welfare main centres	1914.60
	2. Rural family welfare (Sub-centre)	2566.75
	3. Health guide scheme	2103.80
	Total (b)	6585.15
(c)	Urban family welfare Centre	998.98
(d)	Immunisation	100.00
(e)	1. Maintenance of Supply of vehicle of RFWCS	400.00
	2. State Health transport	55.00
	Total (e)	455.00
(f)	1. Vasectomy	1462.17
	2. Tubectomy	5848.68
	3. IUD	150.00
	4. Ex. gratia	20.00
	Total (f)	7480.85
(g)	1. Maintenance of Beds	160.00
	2. Post partem centre	486.00
	3. Con. contraceptives	1.00
	4. Int. Dist. Programme	50.54
	5. Awards	15.00
	Total (g)	712.54
(h)	Mass Education Programme	105.00
(i)	1. Regional Family Welfare Training Centre	60.00
	2. Training ANMS, Dais and HVS	301.25
	3. Demographic Research Centre	20.00
	Total (i)	381.25
	Grand Total	18,451.79

Having achieved a couple protection rate of 46.7 percent by 31.3.1985, the State has set its sights to achieve by the end of the Seventh Five Year Plan, a birth rate of 21 per thousand population and a couple protection rate of 60.00 percent. Targets for various spacing and terminal methods of family planning have been worked out keeping in view the popularity and acceptability of the different methods and the goal fixed for the Seventh Five Year plan, as shown below

Targets in lakhs :

Year	Sterilisation	I.U.D.	OP & CC
1985-86	3.00	2.50	5.46
1986-87	3.00	2.75	5.46
1987-88	3.00	3.25	5.46
1988-89	3.50	3.50	5.46
1989-90	3.50	4.00	5.46
Total	16.00	16.00	27.30

9.4.4.2. An amount of Rs 7330-85 lakhs is provided for sterilisation while a provision of Rs. 150.00 lakhs is made for IUD insertion. Thus Rs. 7480.85 lakhs have been provided for sterilisations & IUD programme. For achieving the targets, the following measures mostly to strengthen the programme infrastructure have been proposed during the period of the Seventh Five Year plan.

Strengthening of State Family Welfare Bureau :

9.4.4.3 The State Family Welfare Bureau, administers the family welfare programme in the State. It undertakes a vigorous and continuous monitoring of implementation of the programme to ensure that the targets set are achieved in the given time, and that there is propriety in the spending of funds provided for the execution of the programme. It is proposed to augment the strength of the Bureau during the Seventh Five Year plan, by creation of 10 more audit parties for exercising due control over expenditure a provision of Rs. 20.5 lakhs is therefore, made for the purpose. while Rs. 987.16 lakhs are provided for the existing setup of state Family welfare Bureau, city and district functioneries of family welfare and Rs. 625.36 lakhs for Area Development projects. Thus a total of Rs. 1633.02 lakhs is provided for direction and Administration of family welfare programme in the state.

Rural Family Welfare Programme :

9.4.4.4. Apart from strengthening the State Family Welfare Bureau, it is also proposed to increase the number of sub-centres for achieving the objective and targets of the programme in the Seventh Five Year plan 1985-90. It is targeted to have 1250 sub-centres Seventh plan period, so that by the end of Seventh Five Year plan there would be in aggregate 6119 rural family planning sub-centres in the State. The expansion in the number of sub-centres contemplated and the maintenance of existing units is likely to cost about Rs. 4481.35 lakhs during the Seventh plan. while a provision of Rs. 2103.80 lakhs has been made for Health guide scheme. Thus, in order to provide family welfare facilities and services at the door step in rural areas Rs. 6585.15 lakhs are provided for this purpose.

GUJARAT

DECENNIAL POPULATION GROWTH RATE 1971-81

BOUNDARIES:
INTERNATIONAL
STATE / UNION TERRITORY
DISTRICT
TALUKA

Km 40 20 0 40 80 Km
Miles 16 0 16 32 48 64



TALUKA WISE POPULATION GROWTH (IN PERCENTAGE)

- BELOW 15
- 15 TO 20
- 20 TO 25
- 25 TO 30
- 30 AND ABOVE

68° East of Greenwich 69° 70° 71° 72° 73° 74° 75°

SURVEY OF INDIA MAP WITH THE PERMISSION OF THE
GENERAL OF INDIA.
TERRITORIAL WATERS OF INDIA EXTEND INTO THE SEA TO A DISTANCE OF TWELVE NAUTICAL MILES
FROM THE APPROPRIATE BASE LINE.
RESPONSIBILITY FOR THE CORRECTNESS OF INTERNAL DETAILS RESTS WITH THE PUBLISHER.

Health guide Scheme :

9.4.4.5. At the end of Sixth plan there would be 2509 health guides in the State. It is proposed to increase the number of health guides cadre during the course of the Seventh Five Year plan looking to the needs of the family welfare programme in the Seventh plan. Another 6000 health guides would be added to the present strength for which an outlay of Rs. 103.60 lakhs is provided. For the Seventh plan, a total outlay including maintenance of existing health guides would be Rs. 2103.80 lakhs.

9.4.4.6. There are now 204 urban family welfare services centres in the State. In the Seventh Plan no new additional family planning centres are proposed, as there is a plan to revamp the scheme in the urban areas.

Revamping of family welfare programme in urban areas :

9.4.4.7 The slum population in the urban areas is growing rapidly. Working group set up by the Government of India went into the welfare aspects of the slums and recommended the establishment of health units to promote family welfare measures among them. Government of India accepted the recommendation and in the form of a project, this has been included in the Seventh plan for the first time. The project proposes to create 39 health units, each to cover population from 25,000 to 50,000 and another 72 health units, each to cover population ranging from 10,000 to 25,000. In all there will be 111 health units for which an outlay of Rs. 366.83 lakhs is provided. Besides, the existing urban family planning centres will be maintained. For this purpose, an outlay of Rs. 998.98 lakhs is provided during the Seventh Plan.

Post Partum Services :

9.4.4.8 The main objective of post partum is to provide contraceptive advise and services primarily to the obstetric and abortion cases coming to hospitals as well as to other patients in the hospital. The P.P. Units are classified as "A" Type (i. e. medical colleges or medical institutions having more than 3000 obst. & gynac cases annually. "B" type (institutions having 1500 to 3000 obst. cases annually) and "C" type (institutions having 500 to 1500 obst. & abortion cases annually). At the end of Sixth Plan, it is expected that there would be 45 P.P. Units functioning in the State. In order to have a wider coverage under the P.P. service it is targetted to establish 50 additional P.P. Units at the sub-district level hospitals during Seventh Plan. For this, an outlay of Rs. 181.14 lakhs is provided for the Seventh Plan 1985-90. While Rs. 304.86 lakhs are provided for maintenance of existing p.p. units. Moreover Rs. 226.54 lakhs are provided for maintenance of beds, conventional contraceptives inter district programmes and awards. Thus Rs. 712.54 lakhs, are provided for p. p. units and other programme. Besides, Rs, 105 lakhs have been provided for mass education programmes.

9.4.4.9. At present, there are in all 842 additional beds reserved for family planning purpose at the hospitals/ dispensaries/PHCs run by Government, Voluntary Organisations and local bodies. Their break up is as under:--

Government	407
Vol. Org.	347
Local bodies	88
Total...	<hr/> 842 <hr/>

9.4.4.10 Taking into consideration the higher targets proposed for family planning in the Seventh Plan, it is targetted to provide 200 additional beds during the

plan period. The total number of reserved beds for family planning including those proposed for the Seventh Plan would come to 531. An outlay of Rs. 14.41 lakhs is provided for implementing this programme.

Vehicles for Rural Family Welfare Centres etc.

9.4.4.11 There are 119 vehicles at the rural family welfare centres of which 57 vehicles have become at solete and are already due for condemnation. The rest would be due for condemnation in the course of the Seventh plan. It is decided to replace the condemned vehicles and strengthen the fleet for coping with increasing activities under the programme by providing 275 new vehicles during the period of Seventh Plan. An outlay of Rs. 275 lakhs is provided for the purpose. While Rs. 125 lakhs are provided for maintenance etc. of these vehicles and Rs. 55 lakhs are for state health transport. Thus an amount of Rs. 455 lakhs is envisaged to be provided for replacement and maintenance of transport facilities for speeding up the implementation of the programme.

Child benefit scheme

9.4.4.12 In order to provide in service training to family welfare staff and also for providing training to ANMS, Dais and Hvs necessary training infrastructure has been created in the state. For maintenance of the training centres and Demographic Reasearch Centre, a provision of Rs. 381.25 lakhs has been made for the Seventh Plan period.

9.4.4.13. The working group on population stabilisation and maternal and child health care appointed by the Planning Commission for the Seventh Plan-has recommended an innovative incentives schemes comprising (A) to give continuing monetary benefits at the rate of Rs. 50/- per month to every couple who undergoes sterilisation with two living children. This would be a "Child benefit scheme" and the monetary benefits under it would be available for five years. Introduction of the scheme would help in promoting the health and well-being of the children in the vulnerasle age-group and promote wider accep tanec of the terminal method after two children and (B) those who undergo sterilisation after birth of two daughters, provided the second child is not less than 3 years. may be given National Saving Certificate of Rs. 10,000 to be encashed after a period of twenty years on the basis of the recommendation, and with a view to achieve the goals of Seventh Plan a proposal giving effect to the recommendation has been formulated and details thereon are outlined below.

Year	Sterilisation target (Lakhs)	Target couples for the scheme by taking 30% acceptors as having two children.
1	2	3
1985-86	3.00	90000
1986-87	3.00	90000
1987-88	3.00	90000
1988-89	3.50	105000
1989-90	3.50	105000
Total..	16.00	480000

9.4.4.14. The total financial requirement of the incentive schemes for five years of the Seventh Five Year Plan would be around Rs. 116.48 crores. This expenditure is however not included in the outlay of Rs. 184.52 crores for the period of Seventh Five Year Plan.

Other Measures

9.4.4.15. The State Government is also trying its best to accelerate the tempo of activities under "Family Welfare Programme". Though the programme is fully aided by the Government of India, the State Government itself has provide an outlay of Rs. 64 lakhs during the Seventh Five Year Plan period under State Plan for granting incentives to the beneficiaries and evolve better information management system by computerisation of data so as to make the programme a success. The State Government has also established strong monitoring machinery at all level for speedy and successful implementation of this programme. The better information management system envisaged to be established during Seventh Five Year Plan would further strengthen efficient implementation of the programme.

9.5 SEWERAGE AND WATER SUPPLY

9.5.1. Introduction

9.5.1.1 The programme under Sewerage and Water Supply envisages the provision of safe and protected water supply and sanitation facilities in the urban and rural areas of the State. Supply of protected drinking water in adequate quantities and disposal of used water are among the basic human needs and are essential for preservation and promotion of public health and hence great importance is attached to this programme.

9.5.1.2 The ten year period of 1981-90 has been declared by the United Nations as the International Water Supply and Sanitation Decade. The decadal goal is to provide potable drinking water to the entire rural and urban population and to provide sanitation facilities to 80% of the urban population and 25% of the rural population. A ten years' master plan for the development of water supply and sewerage sector has been prepared by the State Government. According to this master plan, the requirement of funds to meet with the decadal targets has been estimated at Rs. 571.00 crores. The decade programme has started from the year 1981-82. *i. e.* the second year of the Sixth Five Year Plan. Thus, the decade programme spreads over four years of the Sixth Plan, five years of Seventh Plan and one year of the Eighth Plan. An estimate of the requirement of funds for the decade is as under :

(Rs. in crores)

1981-85 Sixth Plan (4 years)	150.00
1985-90 Seventh Plan (5 years)	378.50
1990.91 Eighth Plan (1 year)	42.50
	<hr/>
	571.00

9.5.1.3 The estimates for the decade plan are based on 1980 prices. Considering price escalation of 30% the requirement of funds for the Seventh Five Year Plan period works out to Rs. 490 crores.

9.5.1.4 The Census of 1981 identified 18114 inhabited villages in the State where reside about 69% of the total population of the State. About 31% of the remaining population live in 255 towns.

9.5.1.5 As many as 9038 villages were identified as "No Source" villages as per the Survey in 1980. Thereafter more than 3000 villages/hamlets have been classified in "No Source" category. This number is still increasing due to depletion of water table. Ingress of salinity and pollution of water sources due to discharge of industrial effluents. Government has, therefore, given highest priority to the programme of providing drinking water facilities to all such "No Source" villages.

9.5.2. Objective and Strategy

9.5.2.1. The objective of the Seventh Plan is to provide drinking water to all the remaining problem villages as well as remaining towns and to cover all class-I

cities with underground drainage facilities and to cover as more towns with underground drainage or low cost sanitation facilities and to make a good start for providing sanitation facilities in rural areas. With the above objectives in view, the priority consideration during the Seventh Plan shall be as under :

- Safe drinking water supply to problem villages ;
- Safe drinking water to uncovered towns ;
- Rehabilitation of old rural water supply schemes ;
- Rehabilitation/Augmentation of urban water supply schemes ;
- Sanitation facilities for Class-I cities followed by other cities and
- Rural Sanitation.

9.5.2.2. The accomplishment of rural water supply programme targets calls for great deal of efforts and huge financial resources. With a view, therefore, to achieve maximum coverage from the available financial resources, low cost schemes will be adopted as far as practicable. For villages having less than 500 population, shallow tube wells fitted with hand pumps or simple dug wells will be provided. For other villages individual piped water supply schemes will be preferred where source of water supply can be located within the economic reach. Group schemes will be adopted only when source of water supply has to be located at a distance from the cluster of villages to be served.

9.5.2.3. For sanitation schemes both for urban and rural areas, low cost schemes with pour flush latrines will be encouraged thereby avoiding costly sewer systems, treatment and disposal works.

9.5.3. Review of Progress

9.5.3.1. As many as 3720 "No Source" villages under the rural water supply programme and 167 towns including corporation towns under the urban water supply programme and 22 towns including corporation towns under the urban-drainage programme covered upto the end of Fifth Plan. Further progress was achieved during the Sixth Plan, 1980.85. The level of achievement expected at the end of Sixth Plan *i. e.* at the end of 1984-85 in respect of certain selected programmes is given below :—

Programme	Total	Nos. expected to be covered upto 1984-85	Nos. that will remain to be covered at the end of 1989-90
1	2	3	4
1 Urban water supply (Towns)	255	181	74
2 Rural water supply (No Source' villages)	+ 5172	+ 1165	+ 4007
	14210	9377	4833
			Which is increased to 6333
3 Urban Drainage (Towns)	255	25	230

9.5.3.2. The State Government has set-up the Gujarat Water Supply and Sewerage Board in the year 1979 which implements the Water Supply and Sanitation programmes in the State. Besides GWSSB, construction of simple water supply works, such as deepening and digging of wells are executed by the Development Commissioner through the agency of District Panchayats. The Water Supply and Sanitation Projects of Corporation cities are implemented by the Corporations themselves. However, on request from the Corporations and under Government directives, G. W. S. S. B. also implements projects of such cities.

9.5.4. Programme for the Seventh Five Year Plan, 1985-90

9.5.4.1. Keeping in view the availability of resources, an outlay of Rs. 16866 lakhs is provided for the Seventh Plan 1985-90; the broad break-up of which is given below :

(Rs. in lakhs)

Sr. No.	Programme	Outlay for 1985-90		
		Non-IDA	IDA	Total
1	2	3	4	5
1	Survey and Investigations	6	..	6
2	Research and Development	50	70	120
3	Urban Sanitation	2680	3502	6182
4	Rural Sanitation	70	..	70
5	Urban Water Supply	2805	1190	3995
6	Rural Water Supply (As and when)	60	..	60
7	Rural Water Supply (MNP)	5000	1233	6233
8	Rehabilitation of rural water supply schemes (New Schemes)	120	..	120
9	Construction of office buildings (New Schemes)	50	..	50
10	Construction of residential staff quarters (New Schemes)	30	..	30
	GRAND TOTAL	10871	5995	16866

9.5.4.2. The programmes included in the Seventh Plan 1985-90 are discussed in the following paragraphs.

World Bank aided Project

9.5.4.3. The World Bank Project estimated to cost Rs. 137.54 crores has been taken up by the State Government during the Sixth Five Year Plan. The details of this project are as under :—

9.5.4.4. The Gujarat water supply and Sewerage Board had submitted a project package costing Rs. 137.54 crores to the International Development Association of the World Bank. The Project consisted of rural Water Supply, Urban Water Supply, Urban Sewerage, low cost Sanitation and Sewerage Schemes of Ahmedabad and Rajkot Municipal Corporations.

9.5.4.5. The project has been negotiated with the World Bank and the International Development Association of the World Bank has accepted the project and sanctioned a credit of Rs. 72 million dollars (Rs. 61.2 crores) in the month of July, 1982. The project is under implementation. This World Bank Project package includes :—

—Sewerage scheme of Ahmedabad Municipal Corporation, Rajkot Municipal Corporation, Nadiad, Anand and Savarkundla.

—Water Supply Schemes for 5 towns namely ; Jamnagar, Bhavnagar, Nadiad, Godhra and Anand ;

—Seven rural Regional rural water supply scheme covering 257 villages ;

—111 individual village water supply schemes ; and

—Low cost sanitation under UNDP Global project for 15 towns estimated to cost Rs. 6 crores. Training is also included in the World Bank Project. The Project is to be implemented within the period from 1982-83 to 1986-87.

The break up is as under :

(Rs. in lakhs)

Sr. No. 1	Name of Project 2	Cost 3
(A) URBAN WATER SUPPLY SCHEME :		
1.	Nadiad	433.16
2.	Godhra	260.61
3.	Jamnagar	958.80
4.	Bhavnagar	767.15
5.	Anand	122.20
	Total—I ..	2541.92
(B) URBAN SEWERAGE :		
1.	Nadiad	861.14
2.	Anand	354.33
3.	Savarkundla	325.38
	TOTAL—II ..	1540.85
(C)	7 Regional rural water supply schemes covering 257 villages	1980.40
(D)	Individual Villages Water Supply Schemes for 111 villages	910.73
(E)	Low cost sanitation project (for 15 towns)	600.00

1	2	3
(F)	Loan fund for House connection	200.00
(G)	Training	77.00
(H)	Equipment	70.00
	TOTAL—III	3838.13
Corporations		
1.	Ahmedabad Municipal Corporation	3379.03
2.	Rajkot Municipal Corporation	2454.03
	TOTAL—IV	5833.06
	GRAND TOTAL	13753.96
	<i>i. e.</i> Rs. 137.54 Crores.	

9.5.4.6. The Sixth Plan outlay for World Bank aided project was Rs. 66 crores. The expenditure at the end of Sixth Plan on this project will amount to Rs. 33.26 crores (Rs. 23.98 crores GWSSB + Rs. 4.28 crores AMC—Total Rs. 33.26 Crores). The project was negotiated in June, 1982. The project agreement was signed on 9th November, 1982 and the credit has become effective from 8th February, 1983. The period from March, 1982 to March, 1984 has been utilised for preparing detailed engineering designs. The project has entered the construction stage only in 1984-85 and hence the project will spill over to Seventh Plan.

9.5.4.7. A provision of Rs. 59.95 crores has been kept for the works under this World Bank Project during 1985-90 and the break-up of the provision is given under respective programmes as applicable. This is against the balance requirement of Rs. 85 crores excluding Contribution from local bodies to complete the project.

Survey and Investigation

1.5.4.8. The water supply and sewerage programme envisages providing drinking water and sanitation facilities to problem villages and Urban towns in the State. Surveys and investigations are essential before Commencing the execution of the planned works. These includes Geohydrological Survey, Pumping sets. Investigation for sources, Surveying and levelling for water supply and Sewerage Projects, Chemical analysis of water samples, Soil Testing for foundations, and Strength Tests of R. C. C. structures.

9.5.4.9. A provision of Rs. 6 lakhs has been made during the Seventh Plan for undertaking survey and investigation in respect of planned schemes/projects.

Research, Development and Training

9.5.4.10. The technology with regard to the development of water supply and sewerage services is fast changing and new processes for exploiting ground and surface waters and making them fit for human consumption are being invested. Their applications to field conditions in the State need to be explored. Further more,

peculiar problems emerge in the course of operations both in respect of water supply as well as sanitation, solutions to which need experiments and even research. Side by side, the manpower engaged in the development of water supply and sewerage services, will have to be acquainted with the new technologies. This has to be done through continuous and systematic training of the personnel.

9.5.4.11. During the Seventh Five Year Plan, 1985-90, the following activities are proposed to be taken up under R and D Programme depending upon needs and other exigencies. Activities under the R and D are a part of the programme.

Desalination

9.5.4.12. On account of long coastal area, there is problem of salinity ingress in some parts of the state including coastal area of Saurashtra, Rann of Kachchh and Surendranagar District. It is, therefore, proposed to install desalination plants at selected locations on experimental-cum-demonstration basis to study the feasibility of their application on large scale basis. A provision of Rs. 10 lakhs has been made for the purpose.

Defluoridation

9.5.4.13. In order to control the fluorosis disease due to fluoride infested water in Amreli district, defluoridation through Nalgonda technique has been attempted and found to be feasible on the basis of experience, in four villages taken up for study on an experimental basis. Further research to develop and popularise community based defluoridation plant is contemplated. 86 villages of Amreli District have been surveyed and are found to be affected with fluoride problem. To cover some of the more actually affected villages by providing community defluoridation plants, a provision of Rs. 10 lakhs is made the Seventh Plan.

Community Bio-Gas Plant

9.5.4.14. Over and above studying the feasibility and putting up demonstration Bio-gas plants based on cow-dung and human excrete it is also proposed to take up a community Bio-gas-cum-sanitation project based on water hyacinth, in Kheda District. A provision of Rs. 10 lakhs is made for this during the Seventh Plan.

Radiation Technology for Sewage Sludge Treatment

9.5.4.15. A project estimated to cost Rs. 100 lakhs (at 1983 price) for sewage sludge treatment at Vadodara is envisaged. One third of the capital cost and 1/5 of the O and M cost is to be borne by State Government for five years. A provision of Rs. 10 lakhs is made for the Seventh Five Year Plan.

Public Health and Engineering (PHE) Laboratory

9.5.4.16. The Laboratory mainly looks after carrying out water analysis for purposes of selection of sources of water, waste water analysis and pollution studies and routine water quality checking during operation stage. A provision of Rs. 10 lakhs is made during the Seventh Five Year Plan towards purchase of equipments, chemicals, glass-ware for the P. H. E. Laboratory at Vadodara. This includes provision for construction of building for regional laboratory at Rajkot.

Training

9.5.4.17. Training is an essential input for proper operation, maintenance and repairs of water supply and sewerage and sanitation schemes. The lack of trained personnel has resulted in short-comings in services and frequent break-downs and

failures of pipe systems, motors, boring equipment, etc. in a number of cases,, particularly in Rural Water Supply Schemes which are situated in remote and interior places far away from the cities. The need for training of lower level personnel such as pump operators, pipe line fitters, valvemen, engine drivers, electricians, wiremen, etc. is therefore actually felt. A Central training institute to cater to the needs of GWSSB, Panchayats, Municipalities and Corporations is therefore proposed to be set up at Gandhinagar under the IDA assisted project, for which a provision of Rs. 70 lakhs is proposed to be provided for the Seventh Plan.

9.5.4.18. Thus a total provision provided for Research and Development for Seventh Plan is as under :—

(Rs. in lakhs)

Research and Development	Seventh Plan Provision
Desalination	10.00
Defluoridation	10.00
Bio-gas plant	10.00
Radiation Technology	10.00
PHE Laboratory and Misc.	10.00
Training institute under IDA	70.00
Total Rs. ..	.. 120.00

Urban Sanitation

9.5.4.19. In all there are 255 towns in the State as per 1981 census. Out of these 29 towns including corporations are expected to be covered with underground drainage schemes by the end of Sixth Five Year Plan.

9.5.4.20. Urban underground drainage schemes of non corporation towns are taken up on "As and when" basis. For this the local bodies are initially required to deposit funds with GWSSB and grant-in-aid is given on the basis of actual expenditure incurred as per availability of funds. The scale of grant-in-aid varies from 35% to 60% depending upon the population of the town. If the local body cannot deposit funds from its own sources, the GWSSB helps the local bodies in securing LIC loan under Government guarantee. For low cost sanitation schemes, financing pattern is as under :—

- (i) 50% subsidy
- (ii) 30% Loan to Local Bodies (Not to be borne by beneficiaries)
- (iii) 20% from beneficiaries.

9.5.4.21. 42 urban drainage schemes taken up on "As and when" basis which are in progress at present will spillover to Seventh Plan. The estimated cost of these 42 schemes is Rs. 68.99 crores, out of which an expenditure to the extent of about Rs. 34.44 crores has been incurred during the Sixth Plan period and an amount of Rs. 34.55 crores will spillover to Seventh Plan. A provision of grant-in-aid is required to be made for these ongoing schemes. Also LIC loans will be raised for the schemes for their financing to the extent admissible.

9.5.4.22. As more and more emphasis and encouragement is now given to low cost sanitation methods, it is expected that some local bodies may come forward

to take up their low cost sanitation schemes during the Seventh Plan period. A provision for grant-in-aid and Government loan is therefore, required to be made for this purpose.

9.5.4.23. A scheme for conversion of basket type latrines into sanitary flush type latrines was being implemented in the Sixth Plan. The scheme as such is not required to be continued in the Seventh Plan as latrine conversion work is mostly completed by the end of Sixth Plan. However, a provision of Rs. 5.00 lakhs (Rs. 5.00 lakhs as grant and Rs. 5.00 lakhs as loan) is made in the Seventh Plan to convert remaining latrines. In the fringe areas of large towns, it may not be feasible to provide sewerlines for one or the other reasons. In such cases also low cost sanitation facilities will be provided for which grant-in-aid and loan provision is required to be made.

9.5.4.24. The details of Urban Sanitation Schemes which are taken up under IDA assistance are as under :—

(Rs. in lakhs)

Name of Scheme	Estimated cost
Anand	354
Nadiad	861
Savarkundla	325
Ahmedabad	3300
Rajkot	2454
Low cost sanitation Schemes for 15 towns	600
Total	7894

9.5.4.25. The drainage schemes of non-corporation towns from the above will be funded by Government loan and a grant-in-aid. The drainage schemes of two corporation towns will be funded by way of raising market borrowings and Local Body's own contribution. The low cost sanitation schemes will be funded by way of government loan and grant-in-aid.

9.5.4.26. A provision of Rs. 6182 lakhs for both Non-IDA and IDA schemes under urban sanitation is made for the Seventh Plan. The break up is given below

(Rs. in lakhs)

Funding Pattern	Seventh Plan 1985-90		
	Non-IDA	IDA	Total
1	2	3	4
Grant-in-aid :			
Underground drainage schemes	495	575	1070
Low cost sanitation schemes	60	192	252
Conversion of latrines	5	..	5

1	2	3	4
Government Loan :			
For IDA Projects (Excluding low cost sanitation schemes)	..	2235	2235
Low cost sanitation schemes	75	165	240
Conversion of latrines	5	..	5
LIC Loan	1350	..	1350
Market Borrowing	720	1060	1780
Total	2080	3502	6182

9.5.4.27. It is targetted to cover 20 additional towns with underground drainage facilities and 15 with low cost sanitation facilities during the Seventh Plan. Thus, the level of coverage achieved at the end of Seventh Plan will be 60 towns.

Rural Sanitation

9.5.4.28. Rural sanitation has not made much headway. The local bodies are not in a position to take up underground drainage schemes. As small panchayats are not eligible for LIC loans, Government loans are required to complete such schemes.

9.5.4.29. Low cost sanitation methods with one pour flush sanitary latrine costing about Rs. 2,000 are being encouraged. The financing pattern for such low cost sanitation schemes is 50% subsidy, 30% loan to local bodies and 20% share from beneficiaries.

9.5.4.30. A provision of Rs. 70 lakhs is made for rural sanitation during the Seventh. Plan. No rural drainage scheme taken up under the IDA assisted project and hence entire provision is for Non-IDA. The break up of the provision made is as under :—

(Rs. in lakhs)

Funding Pattern	Seventh Plan 1985—90
<i>Grant-in-aid</i>	
For 'As and When' schemes	10
For Low Cost Sanitation Schemes	30
<i>Government Loan</i>	
For 'As and When' Schemes	10
For low cost Sanitation Schemes	20
	70

9.5.4.31. Considering cost of one pour flush latrine to be Rs. 2,000/-, it is envisaged to construct 3,000 latrines from the total funds of loan, grant and contribution from beneficiaries. Considering that 5 persons could be served by one latrine and that on an average, 10 latrines are constructed per village, 60 villages will be covered partially during the Seventh Plan. In addition, 5 villages are targetted to be covered with underground drainage facilities during the Seventh Plan.

Urban Water Supply

9.5.4.32. There are 255 towns in the State as per 1981 census. Out of these, 181 towns are covered with water supply facilities by the end of Sixth Five Year Plan. Total 65 water supply schemes (12 New + 53 augmentation) are on going which will spillover to the Seventh Plan. The estimated cost of these schemes is Rs. 37.30 crores, out of which expenditure to the tune of about Rs. 29.76 crores is booked by the end of Sixth Plan, leaving a spillover of Rs. 7.54 crores for Seventh Plan. With the completion of 12 new schemes, the total coverage will be 193 (181 + 12 = 193) towns and cities. The remaining 62 towns are small ones and are also targetted to be covered during the Seventh Plan. All these schemes are taken up on "As and When" basis and the grant-in-aid ranges from 20% to 60% depending upon population. Thus, provision for payment of grant-in-aid is required to be made for these schemes. A provision of Rs. 400 lakhs for GIA is made in the Seventh Plan for non-World Bank aided Urban Water Supply Schemes.

9.5.4.33. In addition, GWSSB helps the Local Bodies in procuring LIC loans against Government guarantee for these schemes. It is expected to raise LIC loans aggregating to Rs. 1,000 lakhs for the water supply schemes during the Seventh Plan period. This includes LIC loans for corporation towns also.

9.5.4.34. As part of the Urban Water Supply Programme, following towns are covered under the World Bank Assistance :

Name of Town	Estimated cost
Anand	122.20
Nadiad	433.16
Jamnagar	958.80
Bhavnagar	767.15
Godhra	260.61
	2541.92

9.5.4.35. These schemes are also eligible for grant-in-aid as per the existing pattern. Therefore, a provision of Rs. 280 lakhs for grant-in-aid for these schemes is made during the Seventh Plan.

9.5.4.36. Head works of Porbandar, Dwarka, Kandla and Godhra are owned by Government and maintained by GWSSB. The sources of water supply for Kandla are Tube-wells and Tapar dam. Due to erratic rainfall, the replenishment in Tapar dam is not certain and often the Kandla-Gandhinagam complex has to rely on tube well supply. A short term emergency water supply scheme based on tube wells is recently executed but to cope up with the growing water demand in this region, a long term augmentation scheme which is expected to cost about Rs. 455 lakhs needs to be taken up. Also, feasibility of putting gates in Tapar dam is being studied and if found feasible a scheme thereof costing around Rs. 225 lakhs will be required to be taken up. In case of Porbandar, some stretch of conveying pipe line needs duplication/replacement. A provision of Rs. 200 lakhs is, therefore, made for taking up augmentation/replacement works of capital nature in respect of Government owned water works during the Seventh Plan period.

Water Supply Project for Ahmedabad Municipal Corporation

9.5.4.37. A project costing Rs. 31 crores for augmenting water supply of --- Ahmedabad city has been taken up by the Ahmedabad Municipal Corporation. The funding of the project is as under :—

12.00 crores	State Government
9.00 crores	L. I. C.
10.00 crores	A. M. C.'s own resources

9.5.4.38. An expenditure of Rs. 24 crores has been incurred on the project so far. An amount of Rs. 8.94 crores has been made available to the AMC which includes Rs. 2.54 crores from Government of India and Rs. 6.40 crores from State Government. An amount of Rs. 5.80 crores is needed to make up Rs. 12 crores from State Government. A provision of Rs. 50 lakhs is made in for the Seventh Plan towards Government loan to A. M. C. for this project.

Water Supply for Rajkot based on Bhadar Dam

9.5.4.39. The present population of Rajkot is about 4.44 lakhs and the projected population is expected to be 8.38 lakhs by 1998. The present water supply requirement at 135 L/capita/day is about 96 mld. The city draws its water supply from two reservoirs viz. Aji and Nyari. In addition the city utilises the waters of Lalpari and Randerda lakes for its water supply. Also augmentation is achieved (i) by drawing additional water from Nyari, (ii) by utilising the leakage water from down stream side of Nyari dam, and (iii) by drawing more water from Lalpari and Randerda. With this, the available water supply to the city from all the sources would be about 61.29 mld. Even the present needs of water cannot be satisfied from the existing sources. The water supply requirement of 1998 would be 129.80 mld. It is, therefore, envisaged to augment the supply by about 45 mld. by drawing water from Bhadar dam, located at about 62 kms. from Rajkot. This will increase the total water supply to the city to 106.29 mld. The estimated cost of the Bhadar dam based water supply project works out to Rs. 2,800 lakhs.

9.5.4.40. The Rajkot Municipal Corporation has launched a project for having a full fledged underground drainage scheme for the city under the World Bank aided project. Before the completion of underground drainage scheme, it is necessary to have satisfactory water supply to the efficient functioning of the drainage system. From this aspect also, it is necessary for the augmentation scheme based on Bhadar dam to be taken up by the Corporation.

9.5.4.41. The pattern of funding will be by way of LIC loan, Market borrowings and Government loan. A provision of Rs. 175 lakhs is made in the Seventh Plan for advancing Government loan for this project.

9.5.4.42. The break up of the total provision of Rs. 3995 lakhs made in the Seventh Plan for urban water supply programme is given below :—

Funding Pattern	Seventh Plan provision		
	Non-IDA	IDA	Total
1	2	3	4
Grant-in-aid			
As and when schemes	400	..	400
World Bank Assisted 5 schemes	..	280	280
	<u>400</u>	<u>280</u>	<u>680</u>

1	2	3	4
LIC Loans	1010	..	1090
Government water supply schemes	200	..	200
MBL for corporation towns	890	..	890
Government Loans			
(i) For AMC	50	..	50
(ii) For RMC	175	..	175
(iii) For IDA projects	..	910	910
	2805	1190	3995

Rural Water Supply (GIA)

9.5.4.43. The water supply schemes in villages other than "No source" village are taken up on "As and when" basis. According to the procedure, the local body has to deposit the amount first and GIA as per availability of funds is released on the basis of expenditure incurred. 50 Nos. of such schemes are on hand. The total estimated cost of these schemes is Rs. 7.64 crores. Expenditure at the end of Sixth Plan will be Rs. 4.79 crores leaving a spill over expenditure of Rs. 2.88 crores for the Seventh Plan. LIC is not advancing loans to small Panchayats and hence provision for grant-in-aid and government loan is required to be made. The provision made for the Seventh Plan is as under :—

(Rs. in lakhs)

	Seventh Plan
Government Loan	10.00
Grant-in-aid	50.00
	60.00

9.5.4.44. It is targetted to cover total 45 villages in the Seventh Plan under this programme.

Rural Water Supply (MNP)

9.5.4.45. The programme of providing safe drinking water to "No Source" villages is one of the most important programmes in the water Supply and Sewerage Sector and is also included as point No. 8 in the new 20 point programme and under the Minimum Needs Programme.

9.5.4.46. Water Supply to many areas of the State depend on insufficient and erratic rainfall. Large areas in North Gujarat, Saurashtra and Kachchha are in arid and semi-arid Zones which are particularly vulnerable in this respect. Only a few rivers in the State are perennial. The State has a long coast line of about 1600 kms. and the areas bordering the coast line are experiencing problems of salinity in ground water due to ingress of salinity. Some areas in Amreli District of the State have high flouride content in their ground water which is detrimental to public health. Some areas of the State are affected by guinea worm disease. Sub-soil water levels are going deeper every year aggravating water problem further.

9.5.4.47. Of the "18114 villages in the State as per census, 1981, 9038 villages were identified as no source" villages by 1980. Out of these, 3720 villages were covered by the end of Fifth Plan. Additional 4492 villages during the Sixth Plan making the total coverage of 8212 villages by the end of Sixth Plan. Besides, about 3000 villages/hamlets have further been identified after 1980 upto March, 1985 to be eligible under the no source category and need to be covered with water supply. Out of these villages, 1165 are covered by the end of Sixth Plan leaving 4007 villages to be covered during the Seventh Plan. Thus, a total of 4833 villages $826 + 4007$ (h) will need to be covered during the Seventh Plan as identified under the no source category upto March, 1985. More and more villages are coming under the no source category due to depletion of ground water, salinity ingress in coastal areas and industrial pollution effects.

9.5.4.48. The question of raising the limit of population for admitting the villages in "No Source" category from 5000 to 10000 is under consideration. If approved, this will result in classifying more villages under the "No Source" category. Considering all these, it is estimated that further 1500 villages may be identified in "No Source" category thereafter and thus the total of about 6333 villages will need to be covered during the Seventh Plan.

9.5.4.49. A provision of Rs. 62.33 crores is made for Rural Water Supply under State MNP (Rs. 150 crores Non-IDA + Rs. 12.33 Crores IDA) in the State Seventh Plan. It is expected that Rs. 50.00 crores will be available under the Accelerated Rural Water Supply programme from the Government of India. It is targetted to cover 5000 "No Source" villages during the Seventh Plan under MNP and ARP combined.

Accelerated Rural Water Supply Programme

9.5.4.50. In order to supplement the efforts of the State Government, G. O. I. also provides necessary funds for accelerated rural water supply programme under central sector MNP. Against the Sixth Plan outlay of Rs. 1152.50 lakhs, the actual expenditure is Rs. 2714.75 lakhs by the end of the Sixth Plan period for the State. For Seventh Five Year Plan an outlay of Rs. 5000 lakhs is proposed to be provided for this central scheme.

9.5.4.51. The coverage of total villages during the Seventh Plan period by different types of schemes will be broadly as under I

Sr. No.	Type of Scheme	No. of village to be covered
		1985—90
1	Individual piped water supply schemes	2000
2	Regional piped water supply schemes	1000
3	Hand Pumps/Simple wells	2000
TOTAL		5000

Rehabilitation of Rural Water Supply Schemes (New Scheme)

9.5.4.52. The completed rural water supply schemes after a satisfactory trial run or about a month were being handed over to the village Panchayats in case of individual schemes and to the District/Taluka Panchayats in case of Regional

Schemes. Experience has, however, shown that on account of inadequate technical staff with the Panchayats and also on account of their weak financial position, the completed water supply schemes handed over were not being maintained and run satisfactorily with the result that the benefits of completed schemes were not-reaching the people though considerable money was spent on them.

9.5.4.53. In order to improve the situation, Government has decided in May, 1983 to entrust all the Regional Water Supply Schemes to the Gujarat Water Supply and Sewerage Board for maintenance. Accordingly, Gujarat Water Supply and Sewerage Board has taken over 144 Regional Water Supply schemes covering 1217 villages and water is being supplied to 986 villages. It is noticed that some of the schemes were executed long back and hence in many cases the sources require for augmentation, the storage requires to be increased, the pumping machinery requires replacement, the pipe lines require replacement or upgradation and the civil works like cisterns, etc., need special repairs. It is, therefore, necessary to take up and complete these works of a capital nature so that satisfactory water supply can be given to all the remaining 231 villages, under the regional schemes.

9.5.4.54. Like-wise a quick survey has revealed that out of about 2800 individual water supply schemes completed, about 450 schemes are lying defunct for one or the other reason. Rehabilitation of these individual schemes also needs expenditure of capital nature for augmentation of source, replacement/repairs to machinery, repairs to pipelines and civil works, etc.

9.5.4.55. A provision of Rs. 120 lakhs is made in the Seventh Plan to take up rehabilitation of rural water supply schemes.

Construction of Office Buildings for Gujarat Water Supply and Sewerage Board and its Regional Offices (New Scheme)

9.5.4.56. The Gujarat Water Supply and Sewerage Board was established in 1979. The Board executes water supply and sanitation works on a large scale. To cope up with its increased activities, new circles, divisions and sub-divisions have to be created in addition to the large number of circles, divisions and sub-divisional offices existing. Presently, the office of the Gujarat water supply and Sewerage Board as well as its circle, Divisions and sub-divisions are accommodated in rented premises for which the Board has to pay heavy rental charges. In the long run, it would be economical to have own office buildings for the Board and its sub-offices. A provision of Rs. 50 lakhs is made for the purpose in the Seventh Plan.

Residential Accommodation for the Staff of Gujarat Water Supply and Sewerage Board (New Scheme)

9.5.4.57. Earlier it has been indicated that the activities of the Gujarat Water Supply and Sewerage Board are expanding and extending to talukas and villages where the housing condition for residential purposes is not very satisfactory. It is, therefore, necessary to provide suitable housing to the staff for residential accommodation. To make a start in this matter, a provision of Rs. 30 lakhs is made in the Seventh Plan from which construction of quarters at selected locations will be taken up.

STATEMENT

Schemewise outlays for the Seventh Five Year Plan 1985—90

(Rs. in lakhs)

Sr. No.	No. and name of the Schemes	Non-IDA	IDA	Total
1	2	3	4	5
1.	WSS—1 Survey and Investigation	6.00	..	6.00
2.	WSS—2 Research and Development			
	(i) PHE Laboratory	10.00	..	10.00
	(ii) Radiation Technology	10.00	..	10.00
	(iii) Desalination	10.00	..	10.00
	(iv) Defluoridation	10.00	..	10.00
	(v) Bio-gas plants	10.00	..	10.00
	(vi) Establishment of Training Instt.	..	70.00	70.00
	Total ..	50.00	70.00	120.00
3.	WSS—3 Urban Sanitation			
	(i) Grant-in-aid			
	(a) U/g. drainage Scheme	495.00	575.00	1070.00
	(b) Low cost Sant.	60.00	192.00	252.00
	(c) Conversion of latrines	5.00	..	5.00
	(ii) Government Loan			
	(d) for IDA Project	..	1560.00	1560.00
	(e) Low cost sanitation	45.00	115.00	160.00
	(f) Conversion of latrines	5.00	—	5.00
	(iii) LIC Loan	1350.00	—	1350.00
	(iv) Market Borrowings	720.00	1060	1780.00
	Total ..	2680.00	3502.00	6182.00
4.	WSS—4 Rural Sanitation G. I. A.			
	(i) As and When Schemes	10.00	..	10.00
	(ii) Low cost Sanitation	30.00	..	30.00
	Government loans			
	(i) As and When Scheme	10.00	..	10.00
	(ii) Low cost Sanitation	20.00	..	20.00
	Total ..	70.00	..	70.00

1	2	3	4	5
5.	WSS—5 Urban Water Supply			
	(i) Government Schemes	200.00	..	200.00
	(ii) Government loans to			
	A. M. C.	50.00	..	50.00
	RMC	175.00	..	175.00
	IDA Project	..	910.00	910.00
	LIC	1090.00	—	1090.00
	MBL for corporations	890.00	—	890.00
	(iii) GIA to W/S. Scheme	400.00	280.00	680.00
	Total—(i) + (ii) + (iii) ..	2805.00	1190.00	3995.00
6.	WSS—6 Rural Water Supply. (As and When)			
	Government Loan	10.00	..	10.00
	G. I. A.	50.00	..	50.00
	Total	60.00	..	60.00
7.	WSS—7 Rural Water Supply. (MNP)	5000.00	1233.00	6233.00
8.	WSS—8 Rehabilitation of R. W. S. S.	120.00	..	120.00
9.	WSS—9 Construction of office Building.	50.00	..	50.00
10.	WSS—10 Construction of Staff quarters	30.00	..	30.00
	GRAND TOTAL ..	10871.00	5995.00	16866.00

9.6 HOUSING

9.6.1 Introduction :

9.6.1.1 Housing is one of the basic necessities of life, next only to drinking water, food and clothing. Housing has become problematic due to the growth of population, rapid industrialisation and urbanisation. A shortage of housing is also perceived in rural areas on account of natural growth in population and comparative stagnation in house building activities. Housing inadequacies have both quantitative and qualitative dimensions.

9.6.1.2 Besides generating direct and indirect employment on a massive and decentralised scale, housing also generates demand for goods and materials produced and manufactured by village and small scale industries and organised industries. Moreover, decent working and living conditions keep down mortality rate, check epidemics, and help in increasing labour productivity.

9.6.1.3 According to the 1981 census, 17.8% of the urban population lives in slums. According to 1971 census data there were 55.29 lakh occupied residential houses in the State, of which 18.54 lakh constituting 33.5% were in urban areas. In 1981, there were 56.69 lakh households of which 19.00 lakh were in urban areas. The information also revealed that 52.3% of the households in urban areas live in one room accounting for 45.6% of the urban population. Further, 29.4% of the households in urban areas live in two rooms constituting 29.7% of the urban population. Thus, 81.7% of the urban households live in houses with two rooms or less. Besides, it also reflects that 58% of the urban population was living in rented accommodation. The average household size in urban areas is 5.58 m. The housing deficit works out to 3800 units per year. Similarly slums are growing at a rate of 15400 units per year. The 1981 census showed 234.80 lakh people in rural areas that is 40.39 lakh families are living in 35.51 lakh houses. In addition to an outright shortage of 4.88 lakh houses, at least 7 percent of the houses fall below the accepted standards of habitation.

9.6.2 Review of Progress

9.6.2.1 Various housing schemes are being implemented as a part of the State Plan. The Gujarat Housing Board and Gujarat Slum Clearance Board undertake activities in urban areas. Similarly Gujarat Rural Housing Board is undertaking housing activities in rural areas. Police and Jail Housing and the scheme for H.B.A. to Govt. employes also contribute towards mitigating the housing problem.

9.6.2.2 Till the end of 1980-85, the programmes under housing comprised Integrated Subsidised Housing Scheme, Economically Weaker section and Low Income group Housing Schemes and Slum Clearance Scheme. It is estimated that the Gujarat Housing Board and Gujarat Slum Clearance Board have constructed about 20286 and 15097 housing units respectively during the Sixth Plan period.

9.6.3 Approach and Strategy :

9.6.3.1 The objective of housing is to provide greater and better opportunities in securing housing accommodation to the people of economically weaker sections, to improve the living conditions of the huts and thereby to improve the living conditions of slum dwellers and to prevent spread of slum areas.

9.6.3.2 Public housing schemes are being restructured to make them consistent with the real needs and the paying capacity of the low income groups for which they are meant. The development of housing has to be planned generally through

the efforts and investment by the public sector. Co-operative societies also need more encouragement as they play an important role in individual housing efforts. Emphasis is, therefore, laid on the provision of institutional support to low cost private housing. Local bodies, financial institutions, banks, cooperatives are expected to make their contribution by providing their own resources towards reducing the magnitude of the housing problem. Housing being a basic need and as the weaker sections and the poor, both in rural and urban areas, cannot easily construct houses on their own, it is, therefore, necessary to assist them suitably through such measures.

9.6.4 Programme for the Seventh Plan 1985-90:

9.6.4.1 An outlay of Rs. 16442.00 lakhs is provided for the following programme during the Seventh Plan 1985-90 :-

(Rs in lakhs)

Programme	Seventh Plan 1985-90 outlay
Urban Housing	3155.00
Rural Housing	8008.00
Govt. Res. Quarters and Admn. Bldgs.	3337.00
Police & Jail Housing.	1335.00
H.B.A. to Govt. Employees	607.00
	<u>16442.00</u>

9.6.5 Urban Housing

9.6.5.1 An outlay of Rs. 3155.00 lakhs is provided for urban housing during the Seventh Plan, 1985-90.

9.6.5.2 The urban housing programme comprises the following schemes with the outlays shown against each scheme for the Seventh Plan 1985-90:-

(Rs. in lakhs)

Name of Scheme	Outlay 1985-90
Economically Weaker Sections Housing	1400.00
Low Income Group Housing	800.00
Site and Services	200.00
Slum Improvement and Upgradation	55.00
World Bank Project	700.00
	<u>3155.00</u>
Total	3155.00

Economically Weaker Sections Housing Scheme (Urban A)

9.6.5.3 People having a monthly income upto Rs. 600 can avail the benefit of houses constructed under Urban 'A' category. The ceiling cost of the dwelling unit is Rs. 12,000. The HUDCO grants loan assistance for construction of houses on sliding scale for this scheme which is insufficient to cover the entire cost of the dwelling unit. Therefore, Gujarat Housing Board has been authorised to utilise the loan given by the State Government under this scheme as 'Seed capital'. The dwelling units built-up by the Gujarat Housing Board under this scheme are being reserved as shown below for the various categories of people :-

- (a) 10% for scheduled castes and scheduled tribes
- (b) 10% for the communities declared socially and educationally backward
- (c) 10% for army personnel
- (d) 3% for the blind and physically handicaped

9.6.5.4. An outlay of Rs. 1400.00 lakhs is provided for the Seventh Five Year Plan as 'Seed Capital' (Rs. 1200.00 lakhs to be given to Gujarat Housing Board and Rs. 200.00 lakhs to Gujarat Slum Clearance Board).

Low Income Group Housing Scheme (Urban-B)

9.6.5.5. People having a monthly income upto Rs. 600 can avail the benefit of the houses constructed under Urban 'B' category. The ceiling cost of the dwelling unit is Rs. 20,000. The HUDCO grants loan assistance for construction of houses on sliding scale for the scheme which is insufficient to cover the entire cost of the dwelling unit. Therefore, Gujarat Housing Board has been authorised to utilize the loan given by the State Government under this scheme as "seed-capital". The dwelling units built-up by the Gujarat Housing Board under this scheme are being reserved for the various categories of people as in the case of Economically Weaker Sections Housing Scheme (Urban A).

9.6.5.6. An amount of Rs. 800.00 lakhs is provided for the Seventh Five Year Plan 1985-90 for this purpose.

Site and Services Scheme

9.6.5.7. The main objective of this scheme is to prevent growth of new slums. In order to meet requirements of the rural poor migrating to urban areas in search of employment, the scheme seeks to provide skeleton houses with Rs. 5,000/- as the ceiling cost per unit tenement which is within the reach of such people.

9.6.5.8. HUDCO finance is available and the government has authorised the Gujarat Housing Board, Gujarat Slum Clearance Board, Urban Development Authorities, Municipal Corporations, Municipalities etc. to utilise the loan assistance given by the Government as "seed capital". An outlay of Rs. 200 lakhs is provided for the Seventh Five Year Plan, 1985-90 for the purpose.

Slum Improvement and Upgradation

9.6.5.9. Rapid urbanisation, industrialisation and shortage of low-cost land for housing in accessible areas are the causes of proliferation of slums in big cities. The living environment of slum areas and living units is sub-standard. Urban slum dwellers are enabled to improve their living condition through following forms of assistance :—

(i) Subsidy of Rs. 1000 to 2000 on sliding scale, to individuals.

(ii) As regards the remaining amount, the same would be met by the beneficiary or would be tied up with the financial institutions like HUDCO, Nationalised Banks etc.

9.6.5.10. An outlay of Rs. 55.00 lakhs is provided for the Seventh Five Year Plan 1985-90 for the purpose.

World Bank Project

9.6.5.11. It has been decided to avail World Bank assistance for Gujarat Urban Development Project. The selected housing projects will incorporate Area Development, Slum Upgradation, Priority Infrastructure, develop sites and services and T. P. Schemes. The detailed five year phasing will be known after negotiations with the World Bank Mission. However, an outlay of Rs. 700 lakhs is provided for the Seventh Five Year Plan, 1985-90.

9.6.6 Rural Housing

9.6.6.1. An outlay of Rs. 8008.00 lakhs is provided for the Seventh Plan, 1985-90. The Rural Housing programme comprises the following schemes with the outlay shown against each scheme :—

(Rs. in lakhs)

Name of the scheme	Outlay for 1985-90
Minimum Needs Programme	
(i) Housesites for landless labourers	310.00
(ii) Assistance for construction of houses on the housesites allotted	6140.00
Assistance for improvement of rural houses	163.00
Low Income Group Housing Scheme	634.00
Economically Weaker Sections Housing Schemes with HUDCO participation	636.00
Loans to farmers for construction of houses	125.00
Total	8008.00

Minimum Needs Programme

9.6.6.2. Two schemes namely housesites for landless labourers and assistance for construction of the houses on the housesites allotted have been the integral part of the Minimum Needs Programme and have also been included in the Revised 20 Point Programme. The schematic details are as follows :—

Housesites for Landless Labourers

9.6.6.3. The scheme was introduced initially as Central sector scheme in 1972-73, envisaged to provide land admeasuring 100 Sq. yards to every landless labourer who

has no land of his own and maintain its livelihood through manual labour, including rural craftsman in order of priority to S.Cs., S, Ts. and others. The aim is to help to provide shelter by way of providing minimum land on which beneficiary may build hut or small dwelling. This land for housesite is proposed to be provided from surplus or waste land. However, in case of the surplus land being not available, the scheme envisages acquiring more land from appropriate sources including private land. In view of the shortage of the available land, necessary instructions have also been issued to provide land admeasuring minimum 50 sq. yards to a beneficiary in such cases. The last date for receiving the applications has been extended from time to time and lastly the date has been extended upto 31st December, 1985. The scheme also provides for Rs. 150 per plot as a subsidy for the development of the plots including levelling, fencing, a masonry well for a group, approach road, street light etc. The exact no. of families in need of free plot has not been assessed so far. However, 8.49 lakh beneficiaries have been provided the housesites by the end of March, 1985. of which 1.75 lakhs, belong to S.Cs., 2.91 lakhs belong to STs. and 3.83 lakhs to other communities. It is proposed to provide house-sites to about 2.07 lakh beneficiaries during 1985-90. An outlay of Rs. 310.00 lakhs is provided for the Seventh Plan 1985-90.

Assistance for construction of houses on the House-sites Allotted

9.6.6.4. The beneficiaries are not in position to construct houses on the housesites allotted to them with their own efforts and hence the scheme of providing financial assistance for construction of houses has been introduced since 1976. The financial pattern has undergone many changes with a view to providing a small but pucca shelter to the needy beneficiary, affecting a Change.

In the pattern of the design and also in the construction material. Following is the revised pattern of assistance for a house costing Rs. 5000

<i>Details</i>	<i>Amount</i> Rs.
1 State Government subsidy	1250
2 State Government Loan.	750
3 HUDCO/Bank Loan.	2500
4 District Panchayat Contribution	250
5 Beneficiary's contribution	250
	Rs. 5000

9.6.6.5. 3.40 lakh beneficiaries have been provided shelter with the Government assistance by the end of March, 1985. Still large number of beneficiaries are to be provided pucca dwellings. It is proposed to construct 3,07,000 houses during the Seventh Plan, 1985-90 for which an outlay of Rs. 6,140.00 lakhs is provided.

Assistance for improvement of Rural Houses.

9.6.6.6. There are large number of Houses/Huts existing in the rural areas requiring improvement in ventilation facilities and smokeless chulas otherwise closely covered dark houses with smoke nuisance poses a threat to the health due to murky atmosphere of the rural inhabitants. Thus in view of the dire necessity for improvement of houses in rural areas, this scheme was introduced during

1978-79. The scheme proposed to provide ventilators and smokeless chulas. The norm of assistance being limited to Rs. 50 in case of ventilators and Rs. 100 in case of smokeless chulas, depending upon the S. Cs., S. Ts., and others belonging to the group of Socially and Economically backward classes whose income does not exceed Rs. 2400 per annum get assistance of Rs. 25 or Rs. 50 for ventilators or smokeless chulas respectively. Since the introduction of the scheme, 101744 ventilators have been installed and 78450 smokeless chulas have been provided till the end of December, 1984. An outlay of Rs. 163.00 lakhs is provided for the Seventh Plan 1985-90 the purpose.

Low Income Group Housing Scheme.

9.6.6.7. Under this scheme, the Gujarat Rural Housing Board constructs houses for persons whose income does not exceed Rs. 600 per month. The State Government provides loan assistance to the Board. The ceiling cost is Rs. 20,000 per unit. An outlay of Rs. 634.00 lakhs is provided for 3464 houses in the Seventh Five Year Plan 1985-90.

Economically Weaker Sections Housing Scheme :

9.6.6.8. The HUDCO has introduced a Rural Housing Finance Scheme under which the cost per unit should not exceed Rs. 6,000 for economically weaker sections (income less than Rs. 350 p.m.). The HUDCO provides Rs. 3,000 of the cost of the house as loan repayable over a period of 10 years. The State Government finances Rs. 1,500 of the cost by way of loan to the Gujarat Rural Housing Board and the remaining Rs. 500 of the cost of houses and land is to be borne by the beneficiary and Rs. 1,000 subsidy from Social Welfare Department. Upto March, 1985 28221 houses were constructed. An outlay of Rs. 636.00 lakhs is provided for the Seventh Plan 1985-90 with a target of 42400 houses.

Loan to Farmers for Construction of Houses

9.6.6.9. The scheme benefits farmers other than landless labourers. Under this scheme it is proposed to give loan upto a ceiling of Rs. 10,000 to the beneficiary through district panchayats. An outlay of Rs. 125.00 lakhs is proposed for the Seventh Five Year Plan, 1985-90 with a target of 1250 houses.

9.6.7. Residential Buildings

9.6.7.1. The programme for construction of residential quarters for Government servants had been taken up right from the year 1970-71 when the requirement of about 29,000 quarters at District Head quarters and 12000 quarters at Taluka Headquarters was assessed. Initially from 1971-72 to 1974-75 good number of quarters could be taken up for construction but thereafter the pace of construction slowed down because of financial constraints during the Sixth Plan period on account of steep rise in prices of building materials and increase in the cost of labour. In all 4777 units were completed during the period 1980-84 and 1800 more houses are likely to be completed during 1984-85. Thus 6577 housing units are likely to be completed during the Sixth Plan period

9.6.7.2. According to the data recently collected about the requirement of residential quarters, around 16614 employees are on waiting list at various District Head Quarters, and about 5266 employees are on waiting list at Taluka Head Quarters. As such the present requirement of quarters can be put at 16614 units at District Head Quarters and 5266 at Taluka Head Quarters, making a total of 21880 units.

9.6.7.3. The categorywise requirement of quarters as on 1--1--1984 is as under:—

Type of Quarter	Pay range	District level	Taluka level	Total
A	Upto Rs. 259	2344	1108	3452
B	Rs. 260 to 424	8019	3336	11355
C	Rs. 425 to 699	3023	623	3646
D	Rs. 700 to 1499	2959	190	3149
E	Rs. 1500 to 2499	269	9	278
Total		16614	5266	21880

9.6.7.4. Thus out of the demand of 21880 units, 1800 units are likely to be completed by 31--3--1985, and 20080 units of various categories would be required. The requirement may escalate depending on the extent of expansion of civil services during this period.

9.6.7.5. The total cost of construction, as per present rates, for 20080 quarters would be about Rs. 104 crores. This can be done, of course, in a phased programme of construction for which adequate finances will be needed. It is proposed to undertake construction of 4000 units of staff quarters at an estimated cost of Rs. 20.50 crores during the Seventh Plan so as to make up the gap of shortage of staff quarters within reasonable time. The Government has decided to provide Hostel type accommodation to transferred employees for temporary stay at district headquarters. There is also proposal to purchase 18 units from Bombay Housing and Area Development Authority for employees staying at Bombay. The estimated cost of the above works proposed for the Seventh Plan is as under :—

(Rs. in lakhs)

Residential Buildings

I.	Construction of New Residential quarters at District/ Taluka places—4000 Units.	2050
II.	Construction of Residential Hostels for Transferred Govt. servants for Temporary accommodation-Distt. places.	100
III.	Purchase of Housing Board flats for Govt. employees in Bombay	50
		2200

9.6.7.6. The spillover liability at the end of the Seventh Plan is expected to be of Rs. 21.03 crores as detailed below :—

Likely spill over at the end of VI Plan	Rs. in Crores
	16.40
Total estimated cost of new works.	22.00
	38.40
Less Outlay provided for the Seventh Plan.	-17.37
	21.03

It is also proposed to construct residential quarters in the tribal areas of the State.

9.6.7.7. An outlay of Rs. 1737.00 lakhs is provided for the Seventh Plan 1985-90 for the purpose.

9.6.8. Administrative Buildings

9.6.8.1. With the increase in new administrative set up and also with expansion of existing ones, the problem of accommodation for Government offices at District Taluka Head Quarters has become of great magnitude. Several offices are housed in hired buildings and huge amount is spent by way of rent. Many of the hired premises are not quite suitable for offices. There has been considerable emphasis on improving the working environment in Government offices and in that context it becomes necessary to undertake the construction of suitable office buildings for housing these offices.

9.6.8.2. The Government has taken up a programme for construction of multi-storeyed buildings to provide adequate space within the land available, so that the offices working in the hired premises can be brought in one campus. So for office buildings are constructed at following places :

1 Ahmedabad	Multi-Storeyed Building (Laldarwaja), Sales Tax Office, Labour, Employment and Training Centre (Shram Bhavan).
2 Vadodara	M. S. Building and Narmada Bhavan.
3 Surat	M. S. Building for Central offices.
4 Rajkot	M. S. Building, District Treasury Office and R.T.O. office.
5 Palanpur	District Office building.
6 Valsad	District Office building.
7 Bhavnagar	R.T.O. Office.
8 Jamnagar	Treasury Office

9.6.8.3. The works of construction of judicial complex at Ahmedabad, Multi-Storeyed building at Bhavnagar and judicial office building at Surat are in progress. The building works for SPIPA is in progress at Ahmedabad. During 1984-85, construction of following building works was envisaged :—

1 Junagadh	Central Office Building.
2 Amreli	Multi-Storeyed Building.
3 Mehsana	Multi-Storeyed Building.
4 Nadiad	Multi-Storeyed Building.
5 Vadodara	Sales Tax Building, District Treasury Building and Bachat Bhavan
6 Ahmedabad	Bhachat Bhavan.
7 Bharuch	Multi-Storeyed Building and Circuit House.

9.6.8.4. The State High Level Committee has reviewed the position of existing accommodation facilities in District and Taluka Offices at various places of the State and it has recommended to take up a phased programme for improvement of existing Taluka Revenue and other offices as well as for the construction of new Taluka buildings wherever necessary. There is also demand for construction of central office building at remaining five District head quarters, namely Bhuj, Surendranagar, Himatnagar, Godhra and Ahwa (Dangs). At many places the accommodation for District Courts and Taluka Courts is inadequate or there is much inconvenience. It is also proposed to construct Sales Tax Offices, Bhachat Bhavans, to add facilities to Treasury offices, to provide information centres and to improve Police offices. The tentative programme therefore, for the construction of new buildings and/or improvement of existing facilities in existing buildings has been drawn up as under :—

Item	(Rs. in lakhs)
Construction of Central office buildings including those in remaining three districts (Surendranagar, Godhra, and Himatnagar)	600
Construction of Civil Court Complex at Ahmedabad and Court buildings at District and Taluka places	300
Improvement/additions or new construction of Revenue Offices at District & Taluka Head-quarters including Tribal Area	200
Improvement/New construction of Treasury offices at District and Taluka offices	200
Construction of Sales Tax Offices at other District/Taluka places	100
Construction of Bhachat Bhavan at District Head Quarters	150
Construction of new R.T.O. offices at District Head quarters	50
Improvement/new construction of police office at Taluka places	50
Providing office facilities to other offices like Employment Exchange, Weights & Measure and Printing and Stationery etc.	50
Construction /purchase of buildings for Gujarat Bhavan at Bombay—Madras—Calcutta	25
Construction/additions in Circuit Houses and Rest Houses	50
District Information Offices/Centres	25
Total	1800

9.6.8.5. Likely spillover liability at the end of the Sixth Plan would be Rs. 21.25 crores. An outlay of Rs. 1600.00 lakhs is provided for the Seventh Plan 1985-90 leaving the expected spillover liability of Rs. 23.25 crores at the end of the Seventh Plan.

9.6.9. Police Housing

9.6.9.1. The housing needs of the police personnel are to be viewed in the context different from the needs of other Government servants. This is because the police personnel upto the rank of Police Inspectors are entitled for rent free accommodation as per the conditions of their service. The scheme of Police Housing is being implemented as plan scheme since the beginning of the 5th Five Year Plan. The Police Housing Scheme has been transferred to State Sector from 1979-80 and hence no central loan assistance is received from 1979-80.

9.6.9.2. The details about the total sanctioned strength of police personnel entitled to rent free accommodation and the number of quarters available etc., as on 1st January 1985 are as under :—

Category	Strength as on 1-1-85	No. of Quarters allotted	No. of Quarters	No. of Quarters yet to be allotted	No. of Quarters under construction	No. of Quarters yet to be constructed
Police Inspector		597	275	322	8	314
Police Sub-Inspectors		2576	1037	1539	74	1465
Constabulary Staff Quarters		35385	30568	24817	3764	21071
TOTAL		58558	31880	26678	3828	22850

9.6.9.3. The total financial outlay required for 22850 quarters will be Rs. 141.91 crores approximately. The outlay proposed for the Seventh Five Year Plan period is Rs. 1305.00 lakhs for Police Housing.

9.6.10. Jail Housing

9.6.10.1. Jail employees are required to stay in jail premises and hence provision is made to grant rent free quarters in jail premises. Against the target to construct 142 residential quarters for jail staff in the Sixth Five Year Plan construction works for 38 quarters remained to be taken up. Thus the construction of 38 quarters will have to be taken up in the Seventh Five Year Plan 1985-90. Also as per recommendations of the norms committee there will be an increase in staff by 1357 employees and hence of quarters required would be 1395.

9.6.10.2. An outlay of Rs. 30.00 lakhs is provided for the Seventh Plan, 1985-90.

9.6.11. House Building Advance to Government Employees

9.6.11.1. There is a large demand from Government employees and the Panchayat employees for advances for purchase/construction of houses.

9.6.11.2. An outlay of Rs. 607.00 lakhs is provided for the Seventh Plan, 1985-90, for the purpose.

STATEMENT
Schemewise Outlay

(Rs. in lakhs)

Sr. No.	Name of work Scheme/Project	Seventh 1985—90 Outlay	Plan 3
1	2		
I. Urban Housing :			
1	HSG-1 Economically weaker sections housing scheme (Urban—A)	1200.00	
2	HSG—2 Low Income group housing scheme (Urban—B)	800.00	
3	HSG—3 Sites and Services	200.00	
4	HSG—4 Slum improvement and upgradation	55.00	
5	HSG—5 Seed Capital to Gujarat Slum Clearance Board	200.00	
6	HSG—6 World Bank Project for Urban Development	700.00	
Total—I		3155.00	
II. Rural Housing :			
7	HSG—7 House Sites for landless Labourers (MNP)	310.00	
8	HSG—8 Assistance for construction of Houses on the house site allotted to landless labourers (MNP)	6140.00	
9	HSG—9 Assistance for improvement of Rural Housing	163.00	
10	HSG—10 Low Income Group Housing Scheme	634.00	
11	HSG—11 Economically weaker sections housing scheme with HUDCO participation.	636.00	
12	HSG—12 Loans to farmers for construction of houses	125.00	
Total—II		8008.00	
III. Government Rental Housing			
13	HSG—13 Government Residential Quarters and Administrative Buildings	3337.00	
Total—III		3337.00	

1	2	3
IV. Police and Jail Housing		
14	HSG—14 Police Housing	1305.00
15	HSG—15 Jail Housing	30.00
	Total IV	<u>1335.00</u>
V. Loans to Government employees for house building		
16	HSG—16 Loans to Govt. employees for house buliding	607.00
	Total V	<u>607.00</u>
	GRAND TOTAL (I+II+III+IV+V)	<u>16442.00</u>

9.7. URBAN DEVELOPMENT

9.7.1. Trends in Urbanisation

9.7.1.1. The 1981 Census indicates that Gujarat (31%) is the third most-urbanised State in India after Maharashtra (35%) and Tamil Nadu (33%). The urban population of Gujarat has increased in the last eight decades from 2.03 million in 1901 to 10.6 million in 1981. Since 1961, it has doubled from 5.32 million to 10.6 million, increasing the number of towns to 255.

9.7.1.2. One of the major factors of rapid growth of urban areas has been migration from rural to urban areas as well as from other parts of the country. The urban population increased at an average annual growth rate of 3.5% during 1971 to 1981 and the rural population at the rate of 2.1% per annum, though the rate of natural increase of urban areas is only 2.17% as against 2.35% per annum for rural areas during 1971-81. The number of people living in the towns and cities will continue to rise in the foreseeable future. At the present rate, we may well have nearly 20 million people living in over 350 towns by the turn of this century.

9.7.1.3. The rapid urbanisation and the changing growth pattern in size and class of cities/towns, if not properly planned and mobilised in time, will bring about haphazard and uneven development adversely affecting the very quality of life of urban dwellers. The urban amenities are lagging behind the growth of population in urban concentrations. The problems of urban areas are characterised by problems of poverty, unemployment, proliferation of slums, inadequate infrastructure of water supply and drainage, traffic congestion, environmental degradation and a host of other problems closely related to the quality of life.

9.7.1.4. According to one projection, the urban population in Gujarat will grow at an annual rate of 3.5% over the period 1981-2001 to 200 lakhs and account for 36% of the total population. The urban population, according to 1981 census, was 106 lakhs. In absolute terms, the urban population would double over the period 1981-2001.

9.7.2. Review of Progress

9.7.2.1. During the Sixth Plan period, the activities and programmes under urban development sub-sector comprised :—

- (i) Preparation of Development Plans and Town Planning Schemes ;
- (ii) Preparation of Regional plans, Metropolitan plans, Traffic and Transportation plans for Metropolitan Areas ;
- (iii) Urban Community Development Projects ;
- (iv) Assisting the urban local bodies for miscellaneous development activities through loans and market borrowings;
- (v) City survey of towns and cities and
- (vi) Minimum Needs Programme.

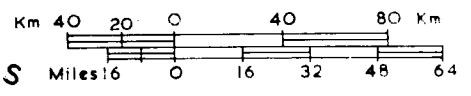
9.7.2.2. The Minimum Needs Programme was taken up by the Government for the first time in the year of 1972-73. In order to provide basic minimum services, the scheme of environmental improvement has been introduced. A subsidy of

GUJARAT

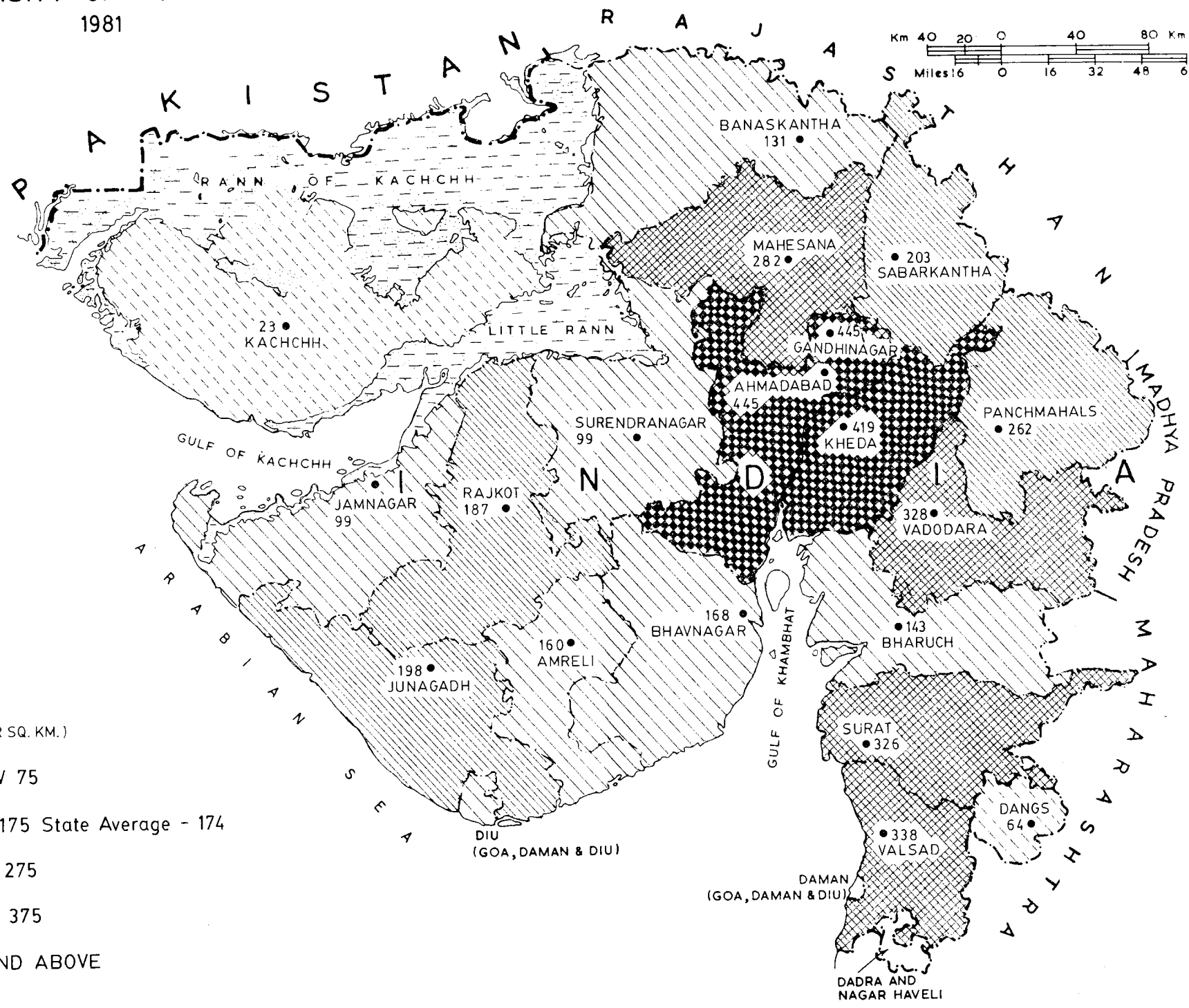
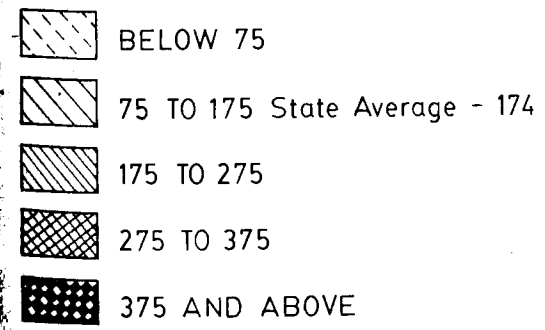
DENSITY OF POPULATION

1981

BOUNDARIES:
 INTERNATIONAL - - - - -
 STATE / UNION TERRITORY - - - - -
 DISTRICT - - - - -



DENSITY (PER SQ. KM.)



KEY OF INDIA MAP WITH THE PERMISSION OF THE GOVERNMENT OF INDIA. TERRITORIES OF INDIA EXTEND INTO THE SEA TO A DISTANCE OF TWELVE NAUTICAL MILES FROM THE APPROPRIATE BASE LINE. THE CORRECTNESS OF INTERNAL DETAILS RESTS WITH THE PUBLISHER.

Rs. 250 per capita (with effect from 1st April, 1984) is given to local bodies for providing basic amenities and services like water supply, drainage, sewerage, community latrines and bath rooms, street lights, road improvement, etc., in slum areas which are not likely to be taken up for clearance for the next 10 years. Priority is given to the slums located on Government or Municipal lands and those inhabited by Scheduled Castes and Scheduled Tribes. The benefit of this scheme has now been made available to private slums also in view of the amendment in the Land Acquisition Act, 1981. From December, 1980, the scope of the scheme has been extended to all areas having Municipal Corporations, Municipalities, Urban Development or Area Development authorities.

9.7.2.3. Slum upgradation and environmental improvement scheme for the slum people has led to the general improvement in the quality of life of those people due to improvement in hygienic condition of living. Till the end of the Sixth Five Year Plan, 48 cities could be covered benefiting 4.84 lakh persons.

9.7.3. Approach and Strategy

9.7.3.1. According to 1981 Census, 31% of the population of the State was located in 255 urban areas. The urban population of Gujarat was 1.06 crores in 1981 which is expected to touch 1.40 crores in 1991 and 1.90 crores in 2001. The urban population in the State has been growing every year at a rate of 3.5% during 1971-81 as compared to 2.1% for rural areas. The process of urbanisation was especially rapid in the case of Class I cities. Nearly 89% of the increase in urban population is in Class-I cities alone, whose population increased from 33.08 lakhs to 61.1 lakhs during 1971-81. Proliferation of slums, steep rise in land price, strains on civic amenities such as provision of drinking water, sanitation and roads are some of the consequences of rapid urbanisation.

9.7.3.2. During the Sixth Plan period, Urban Development Authorities have been set up for the cities of Ahmedabad, Vadodara, Surat and Rajkot. Some of these Urban Development Authorities have also prepared Master plans for the development of areas falling under their jurisdiction. Necessary legal, organisational and financial arrangements may have to be made to give effect to these plans. Simultaneously, the development of small and medium towns under the agency of the Municipal Finance Board may also have to be taken up. An important element here would be to provide professional expertise to small and medium towns for preparation of projects to attract institutional finance from national and international agencies.

9.7.4. Programme for the Seventh Five Year Plan

9.7.4.1. An outlay of Rs. 9768.00 lakhs is provided for the Seventh Five Year Plan 1985-90 for the various Urban Development Programmes. The broad break-up of the outlay provided is as under:—

(Rs. in lakhs)

Name of the Scheme 1	Outlay for Seventh Plan 1985-90 2
Town and Regional Planning	903.00
Urban Development Programme	2000.00
Financial Assistance to local bodies	1500.00

1	2
Minimum needs Programmes (E. I. S.)	500.00
New Schemes	
Urban poor	400.00
Urban Renewal Programme	65.00
World Bank Project	4000.00
Urban Basic Service	400.00
Total	9768.00

Borad outlines of the Programmes

Town / Regional Planning, Preparation of Regional Plan

9.7.4.2. This scheme is for research activities, preparation of the Manual for the department, preparation of project reports for integrated development of small and medium towns, World Bank Assistance and UNICEF Projects, etc. The Manual of the Department is prepared. It will be up-dated looking to the expansion of the development activities. The research cell is standardising the procedure for planning practices and norms.

9.7.4.3. The project for World Bank Assistance, includes the cities of Ahmedabad, Vadodara, Surat and Jamnagar alongwith the towns of Ankleshwar, Vapi, Palanpur, Jetpur etc. for the projects of slum upgradation, area development, town planning etc. It is proposed to set up a separate Unit for preparation of World Bank Project.

9.7.4.4. It is also proposed to take up the Regional Plan for South Gujarat incorporating Ahmedabad, Vadodara, Surat main lines and areas under the influence of Eastern Highway. To formulate policy frame work for industrial development in South Gujarat Region, the report is prepared and submitted to the Government. Information is being collected for level and cost of Municipal Services for five towns of Gujarat viz., Anand, Godhra, Kalol, Rajkot and Vadodara suggested by the Town and Country Planning Organisation, New Delhi.

9.7.4.5. An outlay of Rs. 75 lakhs is provided for the Seventh Five Year Plan 1985-90.

Preparation of development plans and town planning schemes

9.7.4.6. The Urban population of Gujarat may be about 14.40 million and 19.00 million in 1991 and 2001 respectively. At this rate, the number of towns may rise to 300 in 1991 and 350 in 2001. The rise in urban population and urban towns is enormous, and if not planned may affect quality of life adversely. It is, therefore, proposed to prepare as many number of development plans and Town Planning Schemes as possible during the Seventh Plan period. It is proposed to prepare 50 Development Plans and 20 Town Planning Schemes. This will be achieved by creating four new Regional Offices and strengthening the office of the Chief Town Planner with modern electronic equipment and other equipment for Remote sensing Photogrammetry etc.

9.7.4.7. At the end of 1983-84, in all, 88 new Development Plans and 22 Revised Development Plans have been prepared, whereas the work of preparation of 11 new and 8 revised Development plans is in progress, and 6 draft T.P. schemes have been prepared. In the URIS Unit the work of first phase of the pilot study of Anand is completed and is being submitted to the Central Government.

9.7.4.8. During the Seventh Five Year Plan, it is proposed to create 4 Regional Offices for strengthening the department. It is also proposed to modernise the organisation by acquiring a computer and an aerial photography equipment for topographical survey. A training institute is also proposed at Gandhinagar for imparting training to town planning Officers and staff of the Town Planning and Valuation Department.

9.7.4.9. An outlay of Rs. 200 lakhs is provided in the Seventh Five Year Plan, 1985-90 for this purpose.

Grant-in-aid for implementation of development plans and town planning schemes

9.7.4.10 The Urban Development Authorities are given grant-in-aid for implementing the Development Plans and Town Planning Schemes. Uptil now an amount of about Rs. 65.00 lakhs is given as grant-in-aid under this scheme. It is proposed to continue the scheme in the Seventh Plan for which an outlay of Rs. 525 lakhs is provided.

City Surveys

9.7.4.11 City Survey is introduced under section 95 read with Section 131 of the Land Revenue Code. It provides the basis for preparation of Development Plans under the Town Planning Act.

9.7.4.12. It also provides the record of rights showing clear rights, titles, interest, liabilities etc., of all the individuals, local bodies and Govt. in or over each property within the surveyed areas. City Survey is useful in determining unauthorised N.A. uses and detecting encroachments on public lands. The cost of the City Survey Operations is recoverable from the property holders on completion of the work, under Section 132 of Land Revenue Code.

9.7.4.13. The area of the Ahmedabad Municipal Corporation is extended and the Urban Ceiling Act is implemented within the Urban Agglomeration Area of the Corporation. City Survey in the area of 23 villages having 33 Town Planning Schemes situated around the limits of Ahmedabad Municipal Corporation Area has been taken up. These areas are fully developed and covered under different Town Planning Schemes. The survey will also be useful for better implementation of Urban Land Ceiling Act.

9.7.4.14. The Theodolite Survey work of 26 Town Planning Schemes and Plan Table Measurement work of 8 Town Planning Schemes has been completed at the end of the year 1979-80.

9.7.4.15. During the Sixth Five Year Plan, Plan Table Measurement work of 14 Town Planning Schemes was completed while the enquiry work of 10 Town Planning Schemes covering 66533 properties is completed by 1983-84.

9.7.4.16. The Scheme is continued in the year 1984-85 and the work of 23 Town Planning Schemes will spill over in the Seventh Five Year Plan. The schemes will, therefore, continue in the Seventh Five Year Plan as a spill-over scheme for which the physical target of 23 Town Planning Schemes with an outlay of Rs. 103.00 lakhs is provided.

Urban Development Programme

9.7.4.17. The Urban Development Authorities and Area Development Authorities will require assistance at least in the initial stage. These authorities are expected to study the problems of their areas and prepare and implement the development plans and town planning schemes. They are empowered to obtain contribution from the local bodies within their jurisdiction and can levy development charge. They can also utilise the loans made available by HUDCO, LIC and Banks and also avail of assistance under Integrated Urban Development Programme. To make them get on in the initial period, the scheme to give financial assistance in the form of seed capital was introduced in the Fifth Plan. The seed capital in the form of loan forms the basic revolving fund for undertaking various projects.

9.7.4.18. During the Sixth Plan period, loans amounting to Rs. 281 lakhs as seed capital, have been given to the Urban/Area Development Authorities.

9.7.4.19. It is proposed to equip the Urban Area Development Authorities with adequate Seed Capital during the Seventh Plan period also. An outlay of 1000.00 lakhs is provided for the Seventh Five Year Plan for this scheme.

Urban Community Development Projects

9.7.4.20. Urban Community Development Projects lay special emphasis on self-help on the part of the local communities and enable the relatively disadvantaged sections of the community to obtain maximum benefits from facilities provided under various Government and Municipal programmes. The activities to be undertaken in a project cover physical improvement, civic amenities, health and sanitation, recreation and cultural activities, educational activities, economic programmes such as employment referral services, credit referred services, production centres, small savings; etc.

9.7.4.21. At present 13 such projects are in progress. The UNICEF has volunteered to assist existing three Urban Community Development Projects in the Slum areas of Ahmedabad and two in the slums of Vadodara. When UNICEF withdraws the assistance; the liability is to be shared by the State Government and Municipal Corporation in the ratio of 40:60.

9.7.4.22. An outlay of Rs. 100.00 lakhs is provided for the Seventh Five Year Plan 1985-90 for this scheme.

Urban Local Development Programme

9.7.4.23. The benefits of socio-economic development should reach effectively to the people in different areas of a town or a city. They must have adequate schools, nurseries, playgrounds, gardens, auditoriums; reading rooms, recreation centres, gymkhanas, swimming pools, community halls and similar facilities. In order to improve the standard of living in urban areas, a number of small projects at the local level can be taken up by the urban local bodies which can bring social and cultural benefits to the people in the local area. There are a number of voluntary organisations in the towns and cities which provide such facilities and amenities in the local areas from their own funds. In order to encourage the local bodies and the social and voluntary organisations to come up with more projects, it is proposed to augment their resources by giving financial assistance for such projects for which an outlay of Rs. 100.00 lakhs is provided.

Assistance to Municipal Finance Board

9.7.4.24. The Gujarat Municipal Finance Board has been constituted under the Municipal Finance Board Act to streamline the finances of urban local bodies to

enable them to manage their finances on sound lines, to recommend to the State Government the criteria governing the grant of loans and grants, and also to disburse the loans and grants according to the criteria adopted by the Government. For this purpose, an outlay of Rs. 100.00 lakhs is provided for the Seventh Five Year Plan, 1985-90.

Integrated Development of Small and Medium Towns

9.7.4.25. The thrust of the urbanisation policy during next decade would be to put greater emphasis on the provision of adequate urban infrastructure, decentralisation of economic activities and development of small, medium and intermediary towns which have been neglected hitherto in this respect. The aim would be to strengthen them so as to equip them to serve as growth and service centres for the rural hinterland. Decentralised urban development means developing counter magnets and mini-counter magnets in the form of satellite growth centres/poles, nodal centres, etc. For this purpose, increased investments are necessary in housing, water supply and communication facilities. Like-wise facilities for education, medical care and recreation would need to be augmented. The emphasis would also be given to the need for quality investment for setting up new industries and other commercial and professional establishments in small, medium and intermediary towns taking advantage of available particular special conditions. This would include appropriate concessions in respect of capital expenditure on housing schools, entertainment water supply, sanitation and drainage facilities.

9.7.4.26. The scheme of Integrated Development of Small and Medium Towns is under implementation in 17 Towns. Many schemes are still to be implemented. They would be implemented during the Seventh Plan. Projects covering additional towns are also proposed to be taken up during the Seventh Plan under this centrally assisted scheme.

9.7.4.27. Increasing pace of urbanisation and population expansion calls for proper planning of towns and cities. While attention is being given to major metropolitan cities, the small and medium towns are neglected. These towns could otherwise act as counter pulls to check the migration towards metropolitan cities and could also act as growth-cum-service centres for rural hinterland. In Urban Development programme, emphasis on increasing the number of small and medium towns was given to provide central loan assistance on matching basis for selected items of development. In December, 1979 the Government of India called upon the State Government to prepare reports for four or five selected towns from Gujarat. The reports for five towns viz., Anand, Valsad, Porbanadar, Patan (N.G.), and Veraval Patan were submitted. The reports outlined only one year programme initially. The projects were admitted by the Central Government and first instalment was released for these towns. Later, comprehensive reports for the above five towns were prepared wherein the programme was phased over 3 more years. In addition to this, the project reports for 13 more towns were prepared and submitted. However the Government of India could admit only 17 towns under this programme.

9.7.4.28. The comprehensive reports included components for which central assistance is available on a matching basis and also components for which funds are to be met from the provisions in the State Plan. Central assistance cover the following Components :—

(i) Traffic and Transportation :—This component includes projects for construction of new roads and widening/upgradation of existing roads.

(ii) Land acquisition and development :—Residential Schemes including site and services with or without core housing.

(iii) Development of Mandis/Markets.

9.7.4.29. Central assistance for each town is provided in the form of loan to the extent of 50% (limited to Rs. 40.00 lakhs) of the cost of the project on-matching basis under centrally sponsored scheme of Integrated Development of Small and Medium Towns.

9.7.4.30. The components of the scheme for which no share from the Centre is available are:

- (i) Slum Improvement/Upgradation, Urban renewal and small scale employment generation activity
- (ii) Low cost schemes of water supply, sewerage, drainage and sanitation
- (iii) Preventive medical facilities/health care
- (iv) Parks and Playgrounds

9.7.4.31. An outlay of Rs. 700 lakhs is provided for the Seventh Five Year Plan 1985-90 for these activities.

Financial Assistance to Local Bodies

9.7.4.32. Loans are given to local bodies for miscellaneous development activities which are not covered in the sectoral programmes of the State Plan. Loans worth Rs. 17.61 lakhs were sanctioned during the Sixth Five Year Plan for purchase of fire fighters and for other purposes. The scheme will be continued in the Seventh Five Year Plan, for which an outlay of Rs. 200.00 lakhs is provided.

Open Market Borrowings for Miscellaneous development activities.

9.7.4.33. Open Market Borrowings are sanctioned to Municipal Corporations for their developmental activities. The amount that can be raised is subject to restrictions imposed by the Reserve Bank of India. Loans worth Rs. 1178.50 lakhs were borrowed by the Municipal Corporations of Ahmedabad, Vadodara, Rajkot and Surat during the Sixth Five Year Plan period 1980-85. The scheme will be continued during the Seventh Five Year Plan, 1985-90 for which an outlay of Rs. 1300.00 lakhs is provided.

Minimum Needs Programme

Environmental Improvement in Slum Areas

9.7.4.34. The Government of India had introduced the scheme of Environmental Improvement in Slum areas in 1972-73 under Central Sector to cover cities with a population of 8 lakhs and above. Subsequently from 1974-75 *i. e.* during the Fifth Plan, the scheme was transferred to the State Sector and is taken up under the Minimum Needs Programme. The scope of the scheme was extended to cities with a population of 3 lakhs and above. Accordingly, Vadodara, Surat and Rajkot cities are also covered. However, now the scope of the scheme has been further extended to all urban areas with Municipal Corporations and Municipalities and Urban Area Development Authorities.

9.7.4.35. The Scheme envisaged to give financial assistance of Rs. 150/- per capita upto March, 1984 and Rs. 250/- per capita from April, 1984 to local bodies for providing certain basic facilities and services like water supply, drainage, community latrines and bath rooms, street light, paving of roads, etc., in the slum areas which are not likely to be taken up for clearance for next ten years. Priority is

given to the slum areas situated on Government/municipal land and/or inhabited by scheduled castes and scheduled tribes. The services under the scheme are to be provided in the existing slums located in Government or municipal land as well as lands belonging to private owners. The Government has amended the Land Acquisition Act in March, 1981, to facilitate environmental improvement works on private lands. A provision of Rs. 500 lakhs was made for environmental improvement in the Sixth Plan, 1980-85. The population covered during Sixth Plan period under the programme is as under :

Year	Number of Projects sanctioned	Slum population covered	Assistance released (Rs. in lakhs)
1	2	3	4
1980—81	64	1,03,380	40.93
1981—82	30	34,346	39.94
1982—83	41	57,401	57.36
1983—84	52	79,212	96.70
Total	187	2,74,339	234.93

9.7.4.36. The number of slum dwellers living in different slums is more than 15 lakhs. Out of this at least 4.24 lakhs slum dwellers have been covered upto 31st March, 1984 and additional 81820 are likely to be covered during 1984-85 raising the total number of slum dwellers covered to 5.05 lakhs by the end of the Sixth Plan.

9.7.4.37. An outlay of Rs. 500 lakhs for the Seventh plan is provided with a target of covering additional slum population of 2.00 lakhs during Seventh Plan.

New Programme

Urban Poor

9.7.4.38. There is considerable influx of people in urban centres from rural areas which has created many problems in urban areas. With a view to ameliorating the conditions of the poor people residing in urban areas *viz.*, towns and cities having population of more than 50,000, a special provision of Rs. 2 crores was made during 1982-83, 1983-84 and 1984-85 for taking up works benefiting the urban poor, such as sites and services schemes, slum clearance, primary schools, water supply, skill formation, construction of public latrines, medical care, etc.

9.7.4.39. The programmes are formulated by the municipal bodies and submitted to District Planning Boards for approval through the Gujarat State Municipal-Finance Board. The administrative and technical sanction to such schemes approved by the District Planning Board is accorded by the District Collector and the competent officer of the department concerned.

9.7.4.40. The Gujarat State Municipal Finance Board is involved in the disbursement of funds to the Municipalities. This programme has generated consciousness towards the problems of urban poor. In the Seventh Five Year Plan, 1985-90; an amount of Rs. 400 lakhs is provided for this programme.

Urban Renewal

9.7.4.41. The major Urban centres are growing rapidly particularly in the Metropolitan cities. These Urban centres are facing problems on two fronts (1) Expansion of the cities and (2) decay of existing developed areas of the cities, particularly the central areas, where the density is very high.

9.7.4.42. Generally, expansion of the cities is taken proper care of by preparing development plans and T. P. schemes etc., but the existing developed areas mostly remain unattended and no special schemes are being carried out to revitalise these areas. In fact, the core of the cities *i. e.* the central areas, is the hub of all the economic and social activities. The physical forms of these areas require to be reshaped and redeveloped in the light of the changing socio-economic activities. Actions for re-development and renewal of the Urban Centres shall have to be taken up at the earliest and a comprehensive phased programme of redevelopment shall have to be worked out.

9.7.4.43. It may be stated here that within the scope of the Town Planning Act, developmental schemes for the central areas could be taken up but in the absence of proper technical knowhow, adequate staff, finance, etc, such schemes do not get priority treatment. The revised development Plan for the city of Ahmedabad has a definite provision for re-development programme of Bhadra and its surrounding area and similar other thickly populated areas.

9.7.4.44. On a model basis, with appropriate financial assistance from the State Government, the appropriate authorities and Town Planning and Valuation Department can carry out such re-development programme. In the first instance this scheme would be started in Ahmedabad followed by Vadodara, Surat and Rajkot.

9.7.4.45. The main features of re-development programme would be not only a land use plan in two dimensions but a comprehensive plan, reflecting the socio economic conditions as well as addressing three dimensional planning, with a view to create good environment. An outlay of Rs. 65.00 lakhs is provided for the Seventh Plan 1985-90 as grant-in-aid to the appropriate authorities and/or Town Planning and Valuation Department on 50% sharing basis.

The World Bank Assisted Project

9.7.4.46. The Government has decided to avail of the assistance of World Bank for Gujarat Urban Development Project. The first World Bank Mission visited the State in September, 1982 to understand development conditions and strategic issues required to be attended to with a view to improving the urban situation. The project identification mission of the World Bank visited the State in June, 1983 and identified various urban projects based on the study of urban sector and problems of urban centres. That was followed by the first project preparation mission in November 1983. The mission finalised terms of reference and reviewed the preliminary reports, pinpointed detailed action and policy decisions required to be taken. Second project preparation mission visited the State in May, 1984. They reviewed the revised reports and other policy matters. They made suggestions for final report. The pre-appraisal mission visited the State in September; 1984 and assessed the possibility of finalising the urban project works.

9.7.4.47. Meanwhile State Government has constituted in March, 1983 a Project Planning and Monitoring Cell to co-ordinate and monitor the project preparation work and ensure timely completion of the same. The Project Planning Monitoring Cell would also monitor the project implementation process and ensure effective cost recovery.

9.7.4.48. A major share of the proposed investment will be in East Ahmedabad. Implementation of the project would be done by various sub-agencies under the supervision of AUDA. In the case of other projects taken up by Municipal Corporations of Ahmedabad, Vadodara, Surat, Rajkot, and Jamnagar as well as those by Gujarat Housing Board (GHB); and medium towns (Ankleshwar, Palanpur, Jetpur) implementation would be done by the respective agencies themselves.

9.7.4.49. The pattern of sharing the cost of the project would be as under :

1. For schemes to be implemented by AUDA. 1/3 W. B loan + 2/3 State Government Loan.

2. For Schemes to be implemented by Corporations 1/3 W. B loan + 1/3 own fund + 1/3 GMFB loan.

3. For Municipalities 1/3 W. B Loan + 1/3 own fund + 1/3 GMFB loan.

4. For Gujarat Housing Board 1/3 W. B. loan + 2/3 own fund.

5. For G. I. D. C. 1/3 W. B. loan + 1/3 Government loan + 1/3 GIDC and beneficiary industries.

9.7.4.50. Initially the share of 1/3 World Bank loan also shall have to be borne by Government, which will be subsequently reimbursable. An outlay of Rs 4000 lakhs is provided for the World Bank project for the Seventh Plan.

Urban Basic Service

9.7.4.51. The Government of India has introduced a new programme viz. - "Urban Basic Service" with the help of UNICEF assistance. The programme is designed to enhance the Survival and development of children and women of Urban low income families in a selected number of districts. The State Government has recommended to the Government of India to implement this programme in 14 cities. For this programme an outlay of Rs. 400 lakhs is provided for the Seventh Five Year Plan.

Schemewise outlays for the Seventh Five Year Plan, 1985-90

		(Rs. in lakhs)
Sr. No.	No. and Name of the Scheme	Outlay for 1985-90
1	2	3
I. TOWN AND REGIONAL PLANNING		
1	UDP-1 Preparation of Regional Plans	75.00
2	UDP-2 Preparation of Development Plans and Town Planning schemes	200.00
3	UDP-3 Grant-in-aid for implementation of Development Plans and Town Planning Scheme	525.00
4	UDP-4 Introduction of City Survey around Ahmedabad Municipal Corporation	103.00
Sub-Total—I		903.00

1	2	3
II. URBAN DEVELOPMENT PROGRAMME		
5	UDP-5 Seed Capital to Urban Development/Area Development Authority	1000.00
6	UDP-6 Urban Community Service and Urban Community Development Projects	100.00
7	UDP-7 Urban Local Development Programme	100.00
8	UDP-8 Assistance to Municipal Finance Board	100.00
9	UDP-9 Integrated Development of Small and Medium Towns	700.00
	Sub-Total—II	2000.00
III. FINANCIAL ASSISTANCE TO LOCAL BODIES		
10	UDP-10 Loan to Municipalities for miscellaneous Development Activities	200.00
11	UDP-11 Market Borrowing to Municipal Corporation for miscellaneous development activities	1300.00
	Sub-Total—III	1500.00
IV. MINIMUM NEEDS PROGRAMME		
12	UDP-12 Environmental Improvement in slums	500.00
	Sub-Total—IV	500.00
V. NEW SCHEMES		
13	UDP-13 Urban Poor	400.00
14	UDP-14 Grant-in-aid for Urban Renewal Programme	65.00
15	UDP-15 World Bank Project	4000.00
16	UDP-16 Urban Basic Service	400.00
	Sub-Total—V	4865.00
	Grand Total (I to V)	9768.00

9.8 CAPITAL PROJECT

9.8.1.1 Gandhinagar, the new Capital of Gujarat is situated on the bank of river Sabarmati about 24 Kms. north of Ahmedabad City, the site, occupying an area of about 5738 hectares. The City is located on the western bank of Sabarmati river. It has a population of around 62000 according to 1981 census.

9.8.1.2 Gandhinagar is predominantly the administrative centre and consequently may acquire many important cultural, civic and allied functions. Initially the principal employer in the city would be the State Government.

9.8.1.3 The main work areas in the city are:-

- (1) Capital Complex and Government Offices.
- (2) Light Industrial Areas.
- (3) City Centre.
- (4) Public Institutions Area.
- (5) Shopping, Commercial and Warehousing,

9.8.1.4 The regular pattern of main roads divide the city into rectangular 'sectors' measuring one kilometer by three fourth kilometer with an area of 75 hectares each.

9.8.1.5 The Master Plan of the township envisaged the development in two phases of a self contained city with a targetted population of about 3.0 lakhs.

9.8.1.6 The development of the city depends on the availability of services such as water supply, drainage, electricity, roads, etc., and the source of the water is Sabarmati river.

9.8.1.7 Activities of the Capital Project Cover over-all development of land, development of plots to be disposed of in auction for private builders, construction of various buildings for residential, administrative and other public purposes.

9.8.1.8 The temporary Sachivalaya Building was constructed during 1970, and Sachivalaya offices were shifted from Ahmedabad to Gandhinagar in June, 1970. The population of Gandhinagar was 24055 as per 1971 census, and has now increased to 62443 by the end of 1980 according to 1981 census. The same rose to 85000 as on 31-3-1984 and is expected to rise to 1.25 lakhs by the end of 1991.

9.8.2 Review of Progress

9.8.2.1 The expenditure incurred on this project till the end of March, 1980 works out to Rs. 53.67 crores. An amount of Rs. 46.97 crores has been spent during the Sixth Five Year Plan (1980-81 to 1984-85). The total expenditure upto to the end of Sixth Plan is Rs. 100.64 crores.

9.8.2.2 Various categories of residential units numbering 8824 were completed by the end of March, 1980 alongwith the other non-residential buildings viz. temporary Sachivalaya, temporary Assembly building, Patnagar Yojana Bhavan, Primary Schools with Play-grounds, three Secondary Schools, 11 Dispensaries, 100 bed Civil Hospital, Colleges for 2205 students, six Rangmanchs, sixteen Shopping Centres, Circuit House, Vishramgrah, Pathikashrm, Gymkaha (one with swimming pool) 3 Nos. District Library, Bureau Building, Sports Complex with various Play-ground

and tracks, shooting range as well as an Olympic size swimming pool and Sports Hostel, and Wholesale Vegetable Market, etc.

Community Services

9.8.2.3 Community services such as water supply and drainage system for 4.5 m.g.d. were provided and the same was subsequently augmented by additional capacity of 3.5 m.g.d.

9.8.2.4 Main city roads of 87 Kms., internal motor tracks, cycle tracks and other street roads of 182 Kms., alongwith 6302 street light poles have been provided.

Selling of land

9.8.2.5 402.59 hectares of land was sold by allotment to various educational, religious and other institutions, yielding a cumulative receipt of Rs. 466.43 lakhs by the end of 1980.

9.8.2.6 Government have also given 157.65 hectares of land free of cost for laying the railway line from Ahmedabad to Gandhinagar, for Railway Station yard and staff quarters. The Gujarat Housing Board has been allotted land for construction of residential quarters for the public inclusive of residential units for weaker sections and low income groups. Government employees were also allotted plots by Government by draws at fixed price, and rest of the plots were sold by auction.

9.8.2.7 During the sixth Plan period physical achievements are as under:-

1. 3577 Residential Units.

2. Assembly building, New Sachivalaya complex, Town hall, olympic size swimming pool alongwith sports complex and other community services such as shopping centres, water supply and drainage, 114 Kms, of road net work with street lights.

9.8.2.8 During 1980-84, an area of 293.87 hectares of land has been sold realising about Rs. 10 crores. The G.I.D.C. was allotted about 240 hectares of land for setting up an Electronics estate for the development of electronic industrial units.

9.8.3. Programme for the Seventh Plan

9.8.3.1. The objective of the State Capital Project is to develop the township in 30 sectors and to provide required administrative office buildings, residential units for the State Government employees and to provide benefit of Welfare Schemes to the people.

9.8.3.2. So far as community and infrastructure facilities are concerned, out of 30 sectors, 22 sectors are provided with all services including on-going works. Eight sectors are yet to be taken up for providing such community services.

9.8.3.3. The following major works are yet to be provided to cater to the needs of the projected population of 3.50 lakhs.

1. Multi-storeyed administrative building with 45000 sq. feet space and one separate Police Bhavan.

2. Community services like water supply, drainage, roads, shopping centres and educational institutions on need basis.

9.8.3.4. So far as residential units are concerned, overall projected requirements of Township in Gandhinagar is about 25000 units as per the targetted population design, against which 12401 units were completed by the end of March, 1985. Considering the Sixth Plan target of constructing 9465 residential units and completion of 3577 units during the Sixth Plan period the spill over liability at the end of Sixth Five Year Plan would be 5888 units. Over and above, it is proposed to take up 2000 new units during the Seventh Five Year Plan, 1985-90. This will leave a balance of 4711 units which will be taken up according to the availability of funds.

9.8.3.5. For the present, no storm water drain is provided and storm water is drained through the open gutter along the roads. It is anticipated to have an underground storm water drain by the end of 1990-95.

9.8.3.6. The estimated cost for the remaining works yet to be taken up is Rs. 90 crores.

9.8.3.7. It is proposed to sell the balance of 508.27 hectares of salable land available with Government now, which would realise about Rs. 152.48 crores. Of this about 150 hectares of land is proposed to be sold during the Seventh Plan which is expected to realise Rs. 50.00 crores.

Spill over liability of Sixth Five Year Plan

9.8.3.8. The Seventh Five Year Plan, 1985-90 opens with spillover works of Rs. 53.84 crores, of which works amounting to Rs. 18.36 crores have been physically started while works of Rs. 35.48 crores have not yet physically started.

9.8.3.9. In addition to the above spill over works, the following new works are proposed to be taken up subject to availability of funds in the Seventh Plan period:—

Name of work	Estimated cost (Rs. in lakhs)
1	2
Residential Units—2000 units	3000
Multistoreyed building for Adm. offices	165
Police Bhavan	250
2 Primary Schools in remaining sectors	15
Providing B. T. surface to W. B. M. surface on remaining main city roads	100
Widening the existing roads—No. 6, 8, G, KH, K-1 and 2	150
Providing community and infrastructure services in remaining undeveloped sectors.	100
Other works like Gardening, forests, new machinery etc.	100
Providing Water Supply and Drainage in remaining sectors	100
Roads in remaining sectors	100
Regional Recreational Park with Gandhi Memorial	200
Total ..	4280

9.8.3.10. It is proposed to provide an outlay of Rs. 3337 lakhs for the Seventh Five Year Plan, 1985-90, for the programmes under this sector as detailed below:—

		(Rs. in lakhs) 1985--90
1	Works in progress	2537
2	New works (Token provision)	300
3	Direction and Administration	500
Total		3337

STATEMENT

Schemewise outlays for the Seventh Five Year Plan, 1985--90

		(Rs. in lakhs)
Sr. No.	No. and Name of the Scheme.	Outlay for 1985-90
1	2	3
(1)	SCP-1 Direction and Administration.	500.00
(2)	SCP-2 Construction of State Capital.	
(A)	Works in progress.	2537.00
(B)	New works.	300.00
Sub-Total : 2 (A+B)		2837.00
Grand Total:--		3337.00

9.9. INFORMATION AND PUBLICITY

9.9.1. Introduction

9.9.1.1. Communication in the context of development programmes has to function in relation to actual events, policies and programmes and in terms of needs and objectives that the nation sets before itself.

9.9.1.2. The activities of the mass media follow closely the developments in various fields, informing people, reacting to policies and creating a social climate.

9.9.1.3. In the process of social change, information has to play a very vital role in bringing about intelligible participation in the decision making. In this context the provision of the minimum facilities to the areas which are backward and areas which need special treatment in the provision of information services assumes significance.

9.9.1.4. The broad objective of the publicity schemes is to cover larger sections of the population such as factory workers, students, agriculturists, residents in rural areas and such other sections who require special treatment. Thus, it is necessary to (i) select the most suitable areas for different regions and programmes, and (ii) formulate the Schemes for the preparation of publicity material.

9.9.2. Review of Progress

9.9.2.1. The activities under "Information and Publicity" gathered momentum during the period of Fourth Five Year Plan 1969-74 only, when the schemes relating to rural broadcasting, printed and pictorial publicity, recreational activities, exhibitions, information centres and field publicity were implemented.

9.9.2.2. Till the end of Sixth Five Year Plan, 10490 Radio Sets and 6223 T. V. Sets have been installed. One mobile unit was also established. three buildings for information centres at Ahwa, Amreli, and Himatnagar have also been constructed. Three more office buildings at Surendranagar, Mehsana and Jamnagar are likely to be completed by the end of Sixth Five Year Plan.

9.9.2.3. The other activities under this Sector have also been accelerated. During the period of the Sixth Plan two regional exhibition vans have been sanctioned. The workshop at Ahmedabad has also been strengthened. During the Sixth Plan the Gujarat Films Development Coporn. Ltd. has been set up. Besides, two Liaison Units have been started at Gandhinagar.

9.9.3. Programme for the Seventh Five Year Plan

9.9.3.1. Outlays for the programmes to be taken up in the Seventh Plan, 1985-90 are as under :

		(Rs. in lakhs)
		Outlay 1985-90
1		2
I.	Direction and Administration	163.00
II.	Field Publicity	
(1)	Rural Broadcasting	220.00

I	2
(2) Exhibitions	35.00
(3) T. V. Utilisation	20.00
(4) Field Publicity Units	250.00
Total—II	525.00
III. Strengthening Information Centres	20.00
IV. Others	
(1) Gujarat Films Development Corporation Ltd.	30.00
(2) Small and Medium News Papers Dev. Corporation Ltd.	20.00
Total—IV	50.00
GRAND TOTAL	758.00

The broad outline of the schemes to be taken up during the Seventh Plan period 1985-90 are given in the following paragraphs :—

Direction and Administration

9.9.3.2. *News Service.*—The State Directorate of Information has started its own from January 1984. The service has been proved to be quite useful especially to the small and medium newspapers and also to the Radio and T. V. The hand-outs issued by the News Service get good coverage—the extent of coverage being almost to ninety per cent. The service, besides assisting the small and medium newspapers, is also aimed at setting-up infrastructure for developmental news coverage. If the extent of such coverage is raised to twenty per cent, the cause for the rural betterment would be very much helped. The service is required to be made more effective and needs to be strengthened. An outlay of Rs. 10.00 lakhs is provided in the Seventh Plan for strengthening the administration and meeting with the expenditure on activities connected with news service.

9.9.3.3. *Improving Feedback Mechanism.*—Modern trend of communication lays special stress on providing effective and corrective feedback to the Government. Two way traffic in communication includes adoption of feedback mechanism on the most scientific lines. A study for management of Information system on scientific lines is proposed to be undertaken. It is therefore, proposed to entrust this task to an independent and expert institution like Indian Institute of Management or the Indian Institute of Mass Communication. The system of feedback that is obtaining at present in Government is not adequate for providing effective feedback. The functionaries in the Information Department are overwhelmingly occupied in providing publicity to the Government programmes and managing the public relations of the State Government leaving very little time for providing much needed feedback. It is therefore, necessary that a separate machinery with a special cadre of functionaries is set up. This special machinery is proposed to be provided with the logistic support of vehicles, so that the functionaries working on this side can have functional independence. An outlay of Rs. 8.00 lakhs is provided for this purpose in the Seventh Plan.

9.9.3.4. *Expansion of Traditional Media Utilisation*:—Traditional Media utilization has assumed special significance and importance in the context of backwardness of areas and population as well as in the context of ratio of literacy.

9.9.3.5. Expansion of these media hardly require to be stressed when the Government communication has to reach the electronic media which is the demand of the day, Besides, traditional media are required to be explored extensively and scientifically. It is proposed that in each district in the State at least ten programmes per month should be organised. These programmes should include folk dances, Hari Kathas, Bhajans, Kirtans, Plays, Songs, Bhavais, folk songs etc. and convey the message to the audience, not loosing the element of entertainment. All the 19 districts of the State are proposed to be covered under this programme. An outlay of Rs. 50.00 lakhs is provided for the Seventh Plan.

9.9.3.6. *Modernization of Directorate of Information*.—Modernization of the Directorate of Information is considered essential. The Head office as well as the office in the mofussil areas are required to be well equipped with the modern equipment like electronic duplicators, electric typewriters, electronic copier machines, etc. Besides, it is proposed to link the district headquarters with the facility of the direct tele-printer service. An outlay of Rs. 75.00 lakhs is provided for this purpose in the Seventh Plan.

Financial Assistance to Film Studios in the State

9.9.3.7. The State Government has decided to encourage development of film industry in Gujarat by granting subsidy to film studios and laboratories. A grant of Rs. 15,000 will be given as subsidy to the studios per film up to 10 films in a year per studio for a period of five years from the date of starting the studio. It also envisages to give subsidy of Rs. 15,000 per film to the laboratories up to 30 films per year. An outlay of Rs. 20.00 lakhs is provided for the Seventh Plan, 1985—90 for this purpose.

Field Pubicity

9.9.3.8. *Rural Broadcasting and Community T. V. Centres* — Radio and T.V. are the most powerful media of mass communication and education. Central Government as well as State Government propose to take maximum benefits of these modern powerful media of mass communication for the propagation of policies and programmes of the Government and for social, economic and cultural uplift of rural poor.

9.9.3.9. Scheme of Rural Broadcasting and Community TV Centres envisages installation and maintenance of community radio and television sets in the villages on contributory basis. With a view to (i) educating the rural masses on different aspects of development, national integration, agriculture, health and hygiene etc. (ii) providing information and entertainment to rural masses and (iii) establishing direct linkages between the Government and the rural masses living in far off and remote backward and tribal areas of the State, The community radio and TV sets are installed and maintained by the Government.

9.9.3.10. About 2704 community radio sets and about 734 community TV sets are installed by the end of the Sixth Five Year Plan. In the very near future 70% of the population is expected to be covered by the T V programmes. Three High Power and six Low Power T,V. Transmitters are to be installed in Gujarat. Several thousand of community T.V. sets in the service areas of the T,V. Transmitters

are to be installed and maintained. It is proposed to instal and maintain free of cost community radio sets in Tribal and flood affected areas of the State.

9.9.3.11. It is, therefore, proposed to instal and maintain additional 4000 community radio sets and 3,200 black and white community TV sets and to set up 9 maintenance units during the Seventh Five Year Plan, 1985-90, for which an outlay of Rs. 220.00 lakhs is provided.

9.9.3.12. *Exhibitions.*—Utilization of exhibitions as the medium of communication ensures peoples' participation in plan programmes. The exhibitions focus attention on plan publicity, especially on its performance factor. This scheme envisages holding of exhibitions at the National, State, district and taluka levels. Modern equipment and technology including audio-visuals, electronics are proposed to be used in exhibitions. It is proposed to participate in the national and State level exhibitions every year and to plan new strategy for exhibition activities. It is proposed to hire professional experts, consultants and experts for making exhibitions a real success. An outlay of Rs. 35.00 lakhs is provided for this scheme during the Seventh Plan period.

9.9.3.13. *T. V. Utilisation.*—Rural broadcasting through T. V., has been adopted by the State.

9.9.3.14. With starting of Door Darshan Kendra at Ahmedabad in 1985-86 it is anticipated that it will cover to the needs of people of Gujarat. Door Darshan Kendras at Surat, Rajkot and Dwarka and other places will also start functioning. The feeding of news, talks, features, dramas, etc. which could be produced to the liking and benefit of the rural folks in the State has in this context become evident. This calls for organised programmes suitable to the liking and needs of the people.

9.9.3.15. Production of T. V. programmes, particularly highlighting the progress of Gujarat in various fields of activities like agriculture, industry, health, education, power generation, etc., requires considerable efforts, time and involvement. In order to faithfully project the image of Gujarat on the T. V. network and to acquaint the viewers with the progress being made, it is proposed to purchase a set of video equipment.

9.9.3.16. In view of the above, it is proposed that sets of video equipment comprising of (1) ENG system (Electronic News Gathering) with portable video Camera and portable VCRS, (2) Editing system table model VCRS with Edit Controller, Monitor, etc. and (3) Audio and Video Control system may be acquired. To meet with this expenditure, an outlay of Rs. 20 lakhs is provided for the Seventh Plan.

Setting up Field Publicity Units

9.9.3.17. The State Government has decentralised planning of local development works at district level. The developmental activities taken up under these programmes need wide publicity to acquaint the rural masses with the implementation of plan programmes. It is therefore envisaged to strengthen the mobile publicity units. 35 new units will be started at taluka levels during the Seventh Plan period. These units will be provided jeeps, cine projection equipments for which an outlay of Rs. 250 lakhs is provided in the Seventh Plan.

Information Centres

9.9.3.18. *Strengthening of Bombay and Delhi offices and starting new office at Madras.*—Strengthening of Bombay and Delhi Offices of the Directorate of

Information and media support for projecting the image of the State Government in both the cities is required to be ensured and also made quite effective. Since both the cities being seats of number of metropolitan newspapers and the media of radio, T. V. and films, the present set up of Information Offices is quite inadequate. It is proposed to strengthen these two offices during the period of Seventh Plan.

9.9.3.19. A new office of the Directorate of Information at Madras is also proposed to be set up in the Seventh Plan. For strengthening of Bombay and Delhi offices and setting up of new office at Madras envisage an outlay of Rs. 20.00 lakhs for the Seventh Plan, 1985-90.

9.9.3.20. *Gujarat Film Development Corporation*:—Gujarat has on an average one cinema for 69000 of population. One of the recommendations made in the Conference of the Information Ministers was to constitute Films Development Corporation for qualitative growth of film industry in the regional languages. Certain States are already having such Corporations, e. g. Karnataka, Maharashtra, etc.

9.9.3.21. The Government has constituted the Gujarat Film Development Corporation with the following objectives :

- To formulate the scheme for the development of film industry.
- To arrange for finance for production of films.
- To arrange for loans for construction of cinema houses in rural and urban areas.

9.9.3.22. An outlay of Rs. 30.00 lakhs is provided for the Seventh Plan, 1985-90 for participation in the Share Capital of the Gujarat Films Development Corporation Ltd.

9.9.3.23. *Small and Medium Newspapers Development Corporation*:—Small and Medium newspapers are proposed to be encouraged by providing assistance for purchase of land and setting up of printing presses in the form of subsidies. The purpose of giving encouragement to these papers could better be served if these activities are done by a Corporation. It is, therefore, proposed to set up a Small and Medium Newspapers Development Corporation Ltd. during the Seventh Plan.

STATEMENT

Schemewise outlays for the Seventh Five Year Plan 1985-90

(Rs. in lakhs)

Name of the Scheme/Projects (1)	Outlay 1985-90 (2)
I. Direction and Administration	
1. PUB--1. News Services	10.00
2. PUB--2. Improving feedback mechanism	8.00
3. PUB--3 Expansion of Traditional Media Utilisation	50.00
4. PUB--4 Modernization of Directorate of Informstion.	75.00
5. PUB--5 Financial Assistance to Film studios	20.00
Total--I	<u>163.00</u>
II. Field Publicity	
6. PUB--6. Scheme of Rural Broadcasting and Community TV Centres.	220.00
7. PUB--7 Exhibition	35.00
8. PUB--8 T. V. Utilisation	20.00
9. PUB--9 Setting up field publicity units	250.00
Total--II	<u>525.00</u>
III. Strengthening Information Centres	
10. PUB--10. Strengthening of Bombay and Delhi offices and starting of New office at Madras.	20.00
IV Other	
11. PUB--11. Gujarat Films Developwent Corporation Ltd.	30.00
12. PUB--12. Small and Medium Newspapers Development Corporation Ltd.	20.00
Total IV	<u>50.00</u>
Grand Total	<u>758.00</u>

9.10 LABOUR AND LABOUR WELFARE

9.10.1 Introduction

9.10.1.1 Effective Labour administration is necessary in the interest of industrial and agrarian peace, productivity and harmony. An important aspect of these activities is the transformation of available manpower into productive resource by providing training facilities of varying durations and improving the functioning of the labour market.

9.10.2 Review of Progress

9.10.2.1 The industrial relations machinery for conciliation and adjudication has been strengthened from time to time over the years to cope up with the increasing volume of work. The training programmes for trade union workers, enforcement of the provision of Payment of Gratuity Act, 1972, grant-in-aid to trade unions and social institutions for socially desirable objectives, establishment of an institute for research, training and development (Gandhi Labour Institute), etc. are among the measures already initiated. In addition new programmes such as old age pension for agricultural labourers and establishment of Rural Labour Welfare Board have been introduced during the Sixth Plan. Under the aegis of the Board, Rural Workers' Welfare Centres are opened in a phased manner in the taluka having a population of 10,000 or more agricultural labourers. So far 101 such centres have been opened. Recent years have witnessed strengthening of programme for protection and welfare of unorganised and unprotected labour, providing machinery for enforcement of Acts such as the Payment of Bonus Act, the Contract Labour (Regulation and Abolition) Act, 1970, etc.

9.10.2.2 Many areas in organised and unorganised sectors require attention. There is, for instance, no separate machinery for the implementation of the Minimum Wages Act,

9.10.2.3 For the welfare of agricultural labour, a separate establishment was created at the beginning of the Sixth Plan, headed by Rural Labour Commissioner. Revision of the minimum rates of wages for agricultural labour is currently being considered.

9.10.2.4 The norms of disposal of various functionaries in the Labour Commissionerate were increased and a time limit for disposal of cases was fixed. Boards for Contract Labour and for unprotected Manual Workers in cloth market in Ahmedabad have been set up towards promoting the welfare of these unprotected sections of the labour force. A Labour Laws Review Committee was set up under a retired judge of the High Court. The recommendations of this Committee are being examined. The number of members of Industrial Courts and Tribunals has been increased from three at the beginning of the Sixth Plan to ten by the end of the Sixth Plan. Similarly, the number of labour courts has gone up from nine at the beginning of the Sixth Plan to 24 at the end of the Sixth Plan. Norms of disposal based on the recommendations of Kantharia Committee set up by the Government of Maharashtra have been adopted for the Industrial/Labour Courts in Gujarat.

Employment

9.10.2.5 At the end of 1979-80, there were 21 employment exchanges, 17 vocational guidance units, 5 University Employment Information and Guidance Bureau, 10 Employment Information Bureau and 8 Town Employment Exchanges. During the Sixth Plan, two employment exchanges, the Divisional Employment Exchange at Ahmedabad, and Sub-Regional Employment Exchange at Vadodara were bifur-

cated. The programme for computerising the working of the employment exchanges in a phased manner has been initiated during the last year of the Sixth Plan. The Directorate of Manpower has been set up in the Labour and Employment Department from January, 1984.

9.10.2.6 For providing employment to the educated unemployed special recruitment camps, pre-service coaching, career Development Courses etc. have been started. A scheme of retention allowance against part-time work or training has also been implemented in respect of hard core educated unemployed persons registered with the employment exchanges and for registered persons with no permanent earner in their families.

9.10.2.7 In 1981-82, in accordance with the national strategy for dealing with employment and manpower in decentralised manner, District Manpower Planning and Employment Generation Councils were constituted in each district of the State. However, with a view to give momentum to the working of these Councils, a sub-committee of the District Planning Boards has subsequently been constituted in each district.

9.10.2.8 A skill formation programme aimed at maximising utilisation of the training facilities available under the Craftsmen Training Scheme, the National Apprenticeship Training Scheme, etc. was initiated in the Sixth Plan, as a result, the opportunities available for training have been increased by 50000 seats during the Sixth Plan. This has been possible by operating the I.T.Is. in three shifts, innovative concept of grant-in-aid Institutions' adopted by the State Government for the I.T.I. based courses and more vigorous implementation of the National Apprenticeship Act, 1961. A new scheme of Induction Training for Industrial Employment has also been launched during 1984-85.

9.10.2.9 Special care has been taken of hilly and tribal area population of the State by setting up mini I.T.Is. to provide facilities of training in the skill relevant to the tribal areas in all integrated Tribal Development Projects so as to bring the tribals in the mainstream of the development.

9.10.3 Approach and Strategy

9.10.3.1 The demand for manpower is created by the investment in other sectors of development like agriculture, industries and the services in the tertiary sector. This sub-sector takes care of the demand of man-power created by investment in other sub-sectors of development. The generation of productive and continuing wage employment including self employment will be the result of the schemes undertaken under various sectors of development.

9.10.3.2 The training facilities and the opportunities for skill formation training have been increased by 50,000 seats during the Sixth Plan, besides introducing modern trades like electronics and chemicals. This would need to be maintained during the Seventh Plan.

9.10.3.3 The traditional skills of rural artisans would be suitably dealt with under the programmes of Village and Cottage Industries and TRYSEM as an integral part of IRDP. The ITIs will be made to play a role towards the fulfilment of this objective as and when the former agencies are not found adequate in any area.

9.10.3.4 To meet with the training facilities for categories of manpower where critical shortages have been identified, special courses of short duration would be conducted under Career Development Courses. Under the Special Employment Programme, scheme of induction training for Industrial Employment will be continued. Special attention is paid to hilly and tribal population of the State through

Mini I.T.Is in skill relevant to the tribal areas to bring the tribals in the mainstream of the development. Pre service training programme for all categories of persons for recruitment in defence services as well as competitive examinations for SC/ST for recruitment to the posts reserved for them will be continued during the Seventh Plan

9.10.3.5 Measures for integration and compilation of statistics of man power created through various plan programmes initiated in the past would be strengthened. the working of Directorate of Manpower at the State level and the sub committees of the District Planning Boards will be further improved and strengthened during the Seventh Plan.

9.10.3.6 The link between wages and productivity and the rectification of wage disparity which distorts the labour market require vigilant supervision. The Minimum Wages Act which is in force in 21 employments needs to be vigorously enforced. The State Government is concerned with the inadequate level of female employment in the organised sector and the conditions of work in the unorganised sector. Measures are proposed to be taken in the Seventh Plan to improve this situation. In the organised sector, however, it appears necessary to reduce the number of laws and instead evolve a simple code which can be enforced through labour machinery at a low cost. The plethora of legislation and the cases of public interest litigation have served to draw attention to the need to strengthen the existing machinery. Steps would be taken to strengthen the labour administration, during the Seventh Plan period.

9.10.4 Programme for Seventh Plan

9.10.4.1 An outlay of Rs. 4911.00 lakhs is provided for the Seventh Plan 1985-90. This includes an amount of Rs. 4653.00 lakhs for the scheme of the Sixth Plan to be carried over in the Seventh Plan with expansions/modifications and Rs. 258.00 lakhs for the new programmes. Broad break-up of these outlays are as under:--

		(Rs. in Lakhs)	
1	Outlay 1985-90 2	1	Out lay 1985-90 2
A.	EMPLOYMENT SERVICE & TRAINING	III SPECIAL EMPLOYMENT PROGRAMME	975.00
i.	EDUCATION & TRAINING	TOTAL A	4305.00
i)	Craftsmen Training		2765.00
ii)	Apprenticeship Training	B. LABOUR SERVICE AND WELFARE	300.00
	TOTAL, I- EDU. & TRG.	1. LABOUR WELFARE	189.00
II	EMPLOYMENT SERVICE	I Industrial relations	102.00
	SUB TOTAL I AND II	II Working conditions	106.50
		III General Labour Welfare.	106.50

	1	2	1	2
IV Social Security for Labour.	80.00		2. CENTRALLY SPONSORED SCHEME OF REHABILITATION OF BONDED LABOUR	02.50
V Research and statistics.	26.00			
VI Other Promotional activities like development of institutions	100.00		SUB TOTAL 2	02.50
			TOTAL B	606.00
SUB TOTAL 1	603.50		GRAND TOTAL	4911.00

9.10.5 Employment Service and Training

I Education and Training

Craftsman Training Scheme

9.10.5.1 At the end of the Sixth Five Year Plan there will be 21472 seats available in 31 I.T.Is. During Sixth Five Year Plan 9 new I.T.Is were started and 13432 seats were increased. During Seventh Five Year Plan, it is proposed to increase 10000 seats in the existing I.T.Is. by upgrading 17 mini I.T.Is.

9.10.5.2 For adding 10000 seats in three shifts administrative and workshop buildings for 5000 trainees will be required during Seventh Plan. It is proposed to provide Rs. 1000.00 lakhs for administrative and workshop buildings in the Seventh Plan 1985--90.

9.10.5.3 It is also envisaged to provide for hostel accommodation for 50% of the trainees of I.T.Is. At present hostel accommodation for 2000 trainees are available. The total strength being 22,648 seats at the end of Sixth plan. Additional accommodation for 9324 students is required to be provided during Seventh Plan. About 16 hostel buildings at a cost of Rs. 400.00 lakhs are proposed.

9.10.5.4 The 50% of the staff members in the I.T.Is. will be provided staff quarters with a view to increase their stability and efficiency especially in rural and tribal areas. At present, the staff quarters are available at three I.T.Is. while at four I.T.Is. the construction work is in progress. At two I.T.IS. the constaruction work is yet to start. It is envisaged to provide staff quarters at about 16 I.T.Is. at an estimated cost of Rs. 395.00 lakhs during the Seventh Plan.

9.10.5.5 At present, there are about 1500 posts of crafts instructor, 200 posts of supervisor instructor and 80 posts of Foreman Instructor. It is necessary to keep them aware with the latest technology and the development and requirement of the industries. Under this programme, it is envisaged to conduct short duration moduled courses in (1) Stores Management (2) Blue print reading (3) New Audio visual training programme etc. Rs. 25.00 lakhs are provided for quality improvement programme for 1985-90

9.10.5.6. It is also envisaged to provide Rs. 80.00 lakhs for paying grant-in-aid to the trustees of Uttarsanda Kelawani Mandal for the construction of administrative block & workshop building of I.T.I.

9.10.5.7. The construction work of administrative block and work shop of I.T.Is. buildings at Ahmedabad, Surat, Rajkot, Vadodara, Ankleshwar, Dohad, Jamnagar, Modasa, Gandhidham, and Gondal, etc., and hostel buildings at I.T.Is. Gandhidham Ahwa etc., and staff quarters at Gandhidham, Amreli, and Ahwa is in progress. An amount of Rs. 100.00 lakhs is provided for this purpose in the Seventh Plan, 1985-90. Rs. 100 lakhs are provided for spill over works and Rs. 250 lakhs are provided for defunct Machinery in the Seventh Plan. In all a sum of Rs. 2.50 lakhs has been provided for the Craftsman Training Scheme in the Seventh Plan, 1958-00.

Advance Vocational Training System

9.10.5.8. In view of the modern technology adopted in various industrial fields, it has become necessary to provide a chance to the Technicians who are currently employed in various establishments to develop and upgrade their skills in the respective trades. One A.V.T.S. centre was established at Vadodara in 1977. Three other centres at Ahmedabad, Surat and Rajkot are also sanctioned during Sixth Plan.

9.10.5.9. During the Seventh Plan, it is envisaged to establish three more fully equipped centres with 400 seats. A sum of Rs. 250.00 lakhs is provided for this purpose in the Seventh Plan.

Construction of Building for the centre for Rehabilitation of Disabled women

9.10.5.10. Government of India is considering setting up of 5 Vocational Rehabilitation Centres exclusively for disabled women with the provision of skill training workshop during the Seventh Plan. This centre will have facilities for training the disabled women in five trades, namely (1) Dress Making (2) Radio and T. V. (3) Electronics (4) Business services and (5) Secretarial practice.

9.10.5.11. The entire recurring and Non-recurring expenditure on setting up of this centre is to be borne by the Central Government but the State Government has to provide rent free accommodation. A provision of Rs. 40 lakhs for administrative and workshop buildings and Rs. 20 lakhs for hostel has been made for establishing such centre in the Seventh Plan.

Grant-in-aid to Private Agencies for I. T. I. based courses

9.10.5.12. It was found that I. T. I.s run by the State would not be able to cater to the trained manpower needs of the industry. Therefore, the State Government has accepted the concept of providing grant-in-aid to Institutions running I. T. I. based courses. Here the institution has to provide land and building and Government bears a percentage of the cost of machinery and a large portion of recurring expenditure. This scheme was started in 1981-82 and by the end of the Sixth Plan 5176 seats are introduced in 64 grant-in-aid institutions. During the Seventh Plan, it is envisaged to introduce 2000 additional seats at an estimated cost of Rs. 105 lakhs.

National Apprenticeship Training Scheme

9.10.5.13. There are 23,000 seats inclusive of 11000 seats introduced during Sixth Five Year Plan. The construction work of the buildings of basic training

centres, Ahmedabad and Rajkot is started and for Vadodara, it will start very soon. Four hostels at Ahmedabad, Vadodara, Surat and Jamnagar are already constructed and at Rajkot the construction work will start very soon.

9.10.5.14. During the Seventh Plan it is envisaged to introduce additional 5000 seats, three new basic training centres, two hostels and purchase of deficit machinery for existing basic training centres. For this, Rs. 300.00 lakhs have been provided in the Seventh Plan. This provision includes spill over liability of Rs. 40.00 lakhs for the buildings of basic training centres and hostels.

Special Employment Programme

Induction-Training for Industrial Employment

9.10.5.15. There is a large number of educated youth unemployed today. While on the other hand, the industries face shortage of manpower in certain skilled areas due to lack of availability of trained persons. This scheme visualises selective and high quality training in collaboration with the industrial units and academic and other institutions. This scheme is started during 1984-85 and 7500 seats are sanctioned. During the Seventh Plan, it is envisaged to introduce additional 5000 seats at a cost of Rs. 150.00 lakhs.

Career Development courses

9.10.5.16. The short term technical and non-technical courses are run by different agencies at various centres for educated unemployed youths. 37866 youths are trained so far under this scheme. At present 1088 seats are available in 30 centres run by 30 agencies. During the Seventh Plan, need based short term training programmes for 3000 educated un-employed youths will be introduced for getting employment/self-employment of which 1500 persons will be trained in electronics trades and remaining 1500 in other technical trades for which an outlay of Rs. 30.00 lakhs is provided during the Seventh Plan.

Mini I. T. Is

9.10.5.17. In 1979-80, 18 mini I. T. Is. with an intake capacity of 2625 seats in tribal area, were sanctioned and one Mini I. T. I. at Nizar was started during 1983-84. Subsequently three Mini I. T. Is. at Pardi, Santrampur, and Valia were upgraded into full fledged I. T. Is. by the end of the Sixth Plan. There are, thus 16 Mini I. T. Is. with an intake capacity of 1640 seats. The construction work of administrative blocks and workshop for 5 Mini I. T. Is. is in progress whereas in Nasvadi, Zankhwav and Limkheda the work is yet to start. The construction work of hostels for 4 Mini I. T. Is. is in progress whereas at Nasvadi and Jhalod the work is yet to start. The construction work of staff quarters at 3 Mini I. T. Is. is also in progress.

9.10.5.18. There are 32 talukas in tribal area. At present it is seen that a significant number of vacancies reserved for S. T. candidates remain vacant because they are not technically trained. It is, therefore, envisaged to introduce 2028 seats in 12 new mini I. T. Is. during the Seventh Plan at an estimated cost of Rs. 166.00 lakhs.

9.10.5.19. During the Seventh Plan, 14 new Mini I. T. Is. are to be opened for which a provision of Rs. 300.00 lakhs is made for 1985-90.

9.10.5.20. In tribal areas transport facilities are limited. Tribal trainees find it very difficult to attend the classes in time. Moreover it is very expensive for them to travel by bus. It is, therefore, envisaged to construct a hostel for 50 trainees in each institution at an estimated cost of Rs. 100.00 lakhs during 1985-90.

EMPLOYMENT SERVICE

Strengthening the Directorate of Employment

9.10.5.21. There has been enormous increase in the multifarious responsibilities at the Directorate. New schemes have been taken up and the existing activities have also been expanded enormously. For efficient execution of all these activities it is necessary to strengthen the O & M branch, Overseas Cell, training unit, National Apprentice Training unit C. T. S. units, Induction Training wing, Vigilance cell etc., for which Rs. 40.00 lakhs have been provided in the Seventh Plan.

Expansion of Employment Service

9.10.5.22. There are 42 employment exchange offices working in the State. This includes three exchanges bifurcated during the Sixth Plan. The details of expansion of employment service to be undertaken during the Seventh Plan are as under :

- (a) bifurcation of two big employment exchanges.
- (b) Strengthening employment exchanges on the basis of norms prescribed by a committee appointed by General Administration Department.
- (c) Providing vehicles to 4 regional employment officers.
- (d) To provide quick and better services to the employers and the employees and to minimise errors committed because of manual handling of bulk registration, computerisation of 2 big employment exchanges.
- (e) Providing office building to 10 employment exchanges, particularly in tribal areas having no accommodations of their own.
- (f) Providing staff quarters at the employment exchanges, particularly in tribal areas, where suitable residential accommodations are not available.

A sum of Rs. 160 lakhs is provided for these works in the Seventh Plan 1985-90.

Collection of Employment Market Information

9.10.5.23. The administrative machinery for collection of Employment Market Information needs strengthening for effective implementation of C. N. V. Act. A provision of Rs. 8 lakhs is made for this purpose in the Seventh Plan, 1985-90.

Studies and survey for Employment Promotion Board

9.10.5.24. Studies To assess the manpower requirement of G. I. D. C. estates which are the focal centres of industrial growth are very much needed for providing employment. It is envisaged to carry out survey work of 20 G. I. D. C. estates during the Seventh Plan, 1985-90 for which a provision of Rs. 3.00 lakhs is made.

Youth Employment Service and occupational information and Research Analysis

9.10.5.25. A large number of job seekers visit employment exchanges every day for employment assistance and vocational guidance. For the proper dissemination of the career posters, charts, other guiding literature, advertisement cuttings from news papers etc. An amount of Rs. 8.00 lakhs is provided for the Seventh Plan.

Formation of District Employment Generation Council

9.10.5.26. District councils play an important role in preparing employment plans and manpower budget of the districts. It is, therefore, envisaged to strengthen the administrative machinery at the district as well as State level for which a provision of Rs. 35.00 lakhs is made in the Seventh Plan, 1985-90.

Grant of Awards for employment service for Physically Handicapped

9.10.5.27. In conformity with the national objective of strengthening and speeding up efforts for rehabilitation of physically handicapped, the scheme of granting awards to the outstanding employers; efficient handicapped employees and outstanding officers engaged in the placement of the handicapped is to be continued in the Seventh Plan for which a provision of Rs. 6.00 lakhs is made for the Seventh Plan.

Scheme for Pre-service training for Recruitment in Defence Services

9.10.5.28. In order to improve the employability of youths in Gujarat to join Army and Navy non-commissioned vacancies earmarked for Gujarat, 3 more pre service training centres and a new institute for commissioned vacancies in Army, Navy and Air force is proposed in the Seventh Plan at an estimated cost of Rs. 25.00 lakhs.

Pre-service Training scheme for competitive Exams for SC/ST

9.10.5.29. In order to increase the employability of the depressed classes of the society special training classes are conducted for S. C. and S. T. candidates to compete successfully against vacancies reserved for them in various competitive examinations held by Banking Service Commission Recruitment Board and Staff Selection, Commission etc. It is envisaged to train 2560 candidates and appoint 10 junior employment officers for this activity. A provision of Rs. 25.00 lakhs is made for this purpose in the Seventh Plan.

Strengthening the Directorate of Manpower

9.10.5.30. As per the suggestion of the Planning Commission, the Directorate for Manpower Planning has been created from 1-1-1984 with a view to concentrate on the vital sphere of planning of human resources and to ensure that augmentation and diversification of employment become essential components of the strategy for sectoral as well as area development. The working of the Directorate is in the take-off stage and further expansion and diversification are envisaged in the Seventh Plan. Following new activities are proposed to be taken up during Seventh Plan, 1985-90 for which a provision of Rs. 5.00 lakhs is made.

- Establishment of Electronics Data processing unit.
- Creation of Reference library.
- Creation of cell for administering and monitoring the Employment Promotion Fund.

B Labour Service and Welfare

Industrial Relations

Expansion of Labour Wing

9.10.5.31. The office of the Commissioner of Labour is illequipped to analyse the health of industry in so far as the impact of recession and market forces is conce-

ned. Many units have resorted to lock-outs which are owing to demand or pressure from the labour sector. In order to understand the real reasons leading to lock-outs and closures an indepth study is required. For this purpose the creation of a special cell headed by Deputy Commissioner of Labour is proposed.

Legal Cell

9.10.5.32. At present there is no special machinery for analysing legislative requirements for processing legislative proposals and for the defence of writ petitions where question of law are involved. Under these circumstances, it is proposed to create a legal cell with adequate staff during the Seventh Plan.

Administrative machinery for the implementation of Awards and Settlements :-

9.10.5.33 Existing arrangements to ensure implementation of Awards and Settlements in the Commissionerate are not upto the required standard. For the quick, effective, and prompt implementation of various awards and settlements given by the Industrial Tribunals and Labour Courts, separate administrative machinery is proposed in the Seventh Plan

9.10.5.34. An amount of Rs. 39.00 lakhs is provided for the expansion of Labour establishment during the Seventh Five Year Plan 1985-90.

Modernising Library

9.10.5.35. For the efficient and satisfactory implementation of various labour laws, it is necessary to have an upto date and modern Library in the labour Commissioner's office. To make available books, periodicals journals etc. for ready reference an amount of Rs. 2.00 lakhs has been provided in the Seventh Plan.

Protection and Welfare of Unorganised Labour (Contract Labour):--

9.10.5.36. For the swift and effective enforcement of the Contract Labour (Regulation and Abolition) Act, 1970, the existing administrative machinery needs to be strengthened, for which an outlay of Rs. 3.00 lakhs has been provided for the Seventh Plan.

Implementation of Minimum Wages Act (Non Agricultural Workers)

9.10.5.37. At present, the implementation of the Minimum Wages Act is one among many other duties of Government Labour Officers. To make the implementation of the Act effective and to minimise the burden of statutory responsibilities and duties of Government Labour Officers a separate unit has been proposed for which an amount of Rs. 10.00 lakhs has been provided in the Seventh Plan, 1985-90.

GIA to Trade Unions Workers and Others.

9.10.5.38. With a view to help the trade union leaders to play their expected role in the industrial relations activities, various training programmes are arranged by the Gandhi Labour Institute, Ahmedabad. For these programme an outlay of Rs. 2.50 lakhs is provided for the Seventh Plan.

Workers Participation and joint management councils :

9.10.5.39. The importance of promoting the participation of workers in the management of undertakings has been repeatedly emphasised in view of the effects upon productivity and industrial peace. As part of this emphasis institutions which are

prepared to undertake quantitative and qualitative evaluation of the working of the statutory scheme of workers participation in their undertakings are proposed to be assisted through grant-in-aid. An amount of Rs. 2.50 lakhs is provided for 1985-90.

Safety Cell for prevention of accidents

Protection in Hazardous occupations

9.10.5.40. The Chief Inspector of Factories contributes to the prevention of accidents and checks the rising trend of accidents. Considering the further increase in the number of factories four safety cells are envisaged in each industrial region of the State. It is proposed to divide the State into four industrial regions, namely Ahmedabad, Vadodara, Surat and Rajkot regions. These safety cells will ensure the prevention of accidents by intensive safety inspections, training of workers, organising meetings with managements and the E.S.I. Corporation and also by arranging audiovisual shows, and safety exhibitions. The cell would also identify industries having high accident rates and would suggest both specific measures to reduce the rate of accidents and disaster control planning.

Industrial Hygiene Laboratory

9.10.5.41 Workers in factories are exposed to various occupational hazards. A large number of chemical factories are coming up in the state with various hazardous chemicals which are producing fumes, dust, gases and other hazardous substances. Looking to the present trends the chemical factories will increase in the State. It is required to measure dust, level gas concentration, etc. and to diagnose their effect on the health of workers. A team of experts has to inspect each type of chemical factory and to undertake constant research work on a standard pattern. The several occupational diseases are to be surveyed in factories and samples to be tested and the ill effect on the workers to be analysed. For this purpose it is proposed to strengthen the Industrial Hygiene Laboratory. In all an amount of Rs. 735.00 lakhs is provided for the Seventh Plan for the scheme of safety cell for prevention of accidents.

Grant-in-aid to voluntary agencies for safety propagation and Training in Industrial Sphere

9.10.5.42 The Gujarat Safety Council undertakes training in the promotion of safety in industries on roads and at homes. It holds training classes at different places in the State for safety training to workers, vehicle drivers and housewives. It conducts seminars and workshop on different aspects of safety. To promote the activities of the council, an amount of Rs. 2.00 lakhs is provided .

Expansion of Establishment under the Chief Inspector of Factories

Expansion of District Establishment

9.10.5.43 At present there are about 15000 factories registered in this State. Under the existing norms, one inspector is required for every 150 factories. Accordingly in all 104 Inspectors are required. Also there will be a rise of about 5000 factories during the coming 5 years. Thus it is necessary to strengthen the district establishment adequately during the Seventh Plan.

Expansion of Statistical Unit

9.10.5.44 Under the Factories Act, 1948, each factory has to submit annual returns and half yearly returns under the Factories Act, 1948, the payment of

Wages Act, the Maternity Benefit Act, and under the Bombay Labour Welfare Fund Act. To cope up with the increased workload owing to the increase in the number of establishments the present set up of the Statistical unit would have to be strengthened.

Creation of vigilance squad

9.10.5.45. With the increase in the number of factories and greater awareness amongst workers for their rights, strict enforcement of labour laws has to be ensured. It is proposed to create a special squad to carry out special checking of compliance with legal provisions by sudden visits in different areas of the State. This would supplement enforcement effort by local officers.

Creation of a regional set up

9.10.5.46. For efficient enforcement and administration of labour laws, decentralisation of administration is necessary. For this purpose, it is proposed to divide the area of the State into four industrial regions viz. Ahmedabad, Vadodara, Surat, and Rajkot. Each region will have about 5000 factories and will have an office of Deputy Chief Inspector of Factories. In all, an amount of Rs. 50.00 lakhs is provided for expansion of establishment of Chief Inspectorate of Factories in the State.

Expansion of Establishment of Chief Inspector of Boilers

9.10.5.47 The present administrative machinery of Chief Inspector of Steam Boilers is far below the prescribed norms. The Central Boiler Board has proposed a norm of 150 Boilers for inspection by each inspector per year. Keeping in view the increased number of boilers and economisers, the present machinery needs to be strengthened. An amount of Rs. 10.00 lakhs has been provided for the Seventh Plan.

Occupational Health Services

9.10.5.48 Setting up of occupational health services in undertakings where health risks appear greatest and where the workers are exposed to special health hazards is clearly necessary. It is proposed to set up a fully equipped occupational health centre to provide technical guidance and consultancy services to various undertakings for which an outlay of Rs. 5.00 lakhs is provided.

Enforcement of Inter—State Migrant Workmen Act, 1979

9.10.5.49 Migrant workmen are employed in Gujarat State in various industries. They are mainly engaged in the construction of dams, roads, bridges, sugarcane cutting khandhari factories, fishing industry, and in textile units. Exploitation of such migrant workmen by contractors is extreme. To eradicate such exploitation a separate machinery is proposed in the Seventh Plan for which an amount of Rs. 15.00 lakhs is provided.

Non-Formal Education for Child Labour

9.10.5.50. In employment in diamond cutting and polishing and hotel and restaurants, child workers are generally engaged owing to their poor economic conditions. They do not get any education. Accordingly it is proposed to identify such children and to provide them formal educational facilities. The scheme will be introduced in selected districts in the State for which an outlay of Rs. 4.00 lakhs has been provided in the Seventh Plan 1985-90.

Grant-in-aid to Trade Unions and Social Institutions for Socially Desirable Objectives

9.10.5.51 Trade unions and Social Institutions have a vital constructive role to play in improving the quality of life of workmen. Under the scheme, registered trade unions and other social institutions registered under the Societies Registration Act, are given grant in-aid to take up cultural and welfare activities. An amount of Rs. 10.00 lakhs is proposed for this purpose in the Seventh Plan, 1985-90.

Unit for collection of Labour Statistics

9.10.5.52 The Estimates Committee of the Lok Sabha in its 52nd report and the Labour Ministers Conference held in September 1983 recommended strengthening the existing labour administration to monitor industrial relation towards ensuring that the Central Department of Labour gets from the State, adequate information relating to the industrial relations situation. Accordingly a monitoring cell is proposed. An amount of Rs. 20.00 lakhs has been provided for 1985-90.

Creation of Legal Cell and Planning Unit in L & E Department

9.10.5.53 For the creation of a legal cell and a planning unit in the Labour and Employment Department an outlay of Rs. 6.00 lakhs is proposed in the Seventh Plan, 1985-90.

Implementation of Gujarat Unprotected Manual Workers Act 1979 Statutory Boards

9.10.5.54 The first Board for the unorganised workers engaged in cloth markets or shops has been constituted at Ahmedabad. Similarly, it is provided to constitute Boards in two different industries namely a Railway Workmen Board and a Public Transport Workmen Board an outlay of Rs. 10.00 lakhs is provided in the Seventh Plan.

Expansion of Activities of the Gandhi Labour Institute

9.10.5.55 The activities of the Gandhi Labour Institute are in the take off stage and further expansion and diversification are essential. In order to strengthen its administrative organisation, to cope up with the needs for research and training programmes, and to construct buildings, an outlay of Rs.50 lakhs is proposed in the Seventh Plan 1985-90.

Labour Judiciary.

9.10.5.56 For maintenance of industrial peace and for protection of the rights of workmen under labour laws. Industrial Tribunals and Labour Courts function in the State under the provisions of the Bombay Industrial Relations Act, 1946, and the Industrial Disputes Act, 1947.

Opening of new Industrial Tribunal and Labour Courts

9.10.5.57 Owing to the rapid growth of industries in the State and to increasing awareness of right amongst workmen, the filling of cases in the Industrial Tribunals and Labour Courts has increased. To deal with this inflow of cases the present machinery is inadequate. It is therefore proposed to strengthen the present machinery by opening 10 Industrial Tribunals and 16 Labour Courts during the Seven-Plan. An outlay of Rs. 60 lakhs is provided for this purpose in the Seventh Plan.

Construction of office premises and staff quarters for Industrial Tribunal and Labour Courts

9.10.5.58 The Courts have been experiencing acute shortage of accommodation and there have been representations from lawyers and contesting parties about the non-availability of accommodation for the conduct of business. It is, therefore, proposed to construct five buildings for Industrial Tribunals and ten for Labour Courts together with staff quarters. An outlay of Rs. 70 lakhs is provided for the Seventh Plan for this purpose.

9.10.6 Rural Labour Welfare Programme

9.10.6.1 There is a large population of agricultural labourers in Gujarat. It has risen sharply during the decade 1971-1981. According to the 1971 Census it was 18.87 lakhs while in 1981 it has gone upto 24.88 lakhs. This steep rise is alarming. Unlike labourers working in urban areas and having effective unions, rural labour has been subjected to exploitation. This is precisely due to the fact that agricultural labourers, are working in vast rural areas and they are not organised. The prime concern for agricultural labourers is to ensure minimum wages. It is a fact that despite legislation for minimum wages, agricultural labourers tend to be under paid and are exploited. In order to ensure that agricultural labourers get minimum wages, and to implement other economic, cultural and social programmes for the upliftment of rural agricultural labour a separate machinery was created by the State Government in 1981 in the form of Rural Labour Commissionerate. Gujarat is the first State in the country to have established a separate Commissionerate for rural labour. Labour officers have been appointed at district level as well as in talukas with a population of over 10,000 agricultural labourers.

9.10.6.2 After the creation of separate machinery, the progress of work has been quite encouraging. The number of inspections and prosecutions has gone up and large amounts have been paid to labourers through the persuasion of farmers by officers.

9.10.6.3 Over and above this, the rehabilitation of bonded labour, welfare programmes such as old age pension for agricultural workers, working of the Rural Labour Welfare Board and its welfare centres, the welfare of inter-state migrant workers, are important functions of the Commissionerate.

Protection and Welfare of unorganised Labour

9.10.6.4 Effective implementation of Minimum Wages in agriculture is one of the items under 20 Point Programme. Agricultural labourers are the poorest among the poor in the rural areas. Despite many legislations for their benefit and welfare, it is frequently observed that benefits do not percolate to the poor. The payment of the minimum wage for employment in agriculture is vital to rural workers. The State Government has taken all possible actions to see that the provisions of Minimum Wages Act are not violated. However, the present machinery at taluka level

has been found inadequate. In some talukas where the population of agricultural labourers is high, it is practically impossible for one officer at the taluka level to protect their rights. Hence it is proposed to strengthen the taluka level machinery during the Seventh Five Year Plan 1985-90. Increase in number of field offices and Rural Labour Welfare Centres is envisaged. The administrative machinery at the Commissionerate would be suitably strengthened for which an outlay of Rs. 87.50 lakhs is provided.

Old age pension for agricultural labourers

9.10.6.5. Social security for agricultural labourers is a prime necessity. A scheme for the purpose has been implemented since 1980-81 which envisages payment of a pension of Rs. 15 p. m. to old and infirm agricultural labourers. This scheme which has proved to be a blessing for old and infirm agricultural labourers is proposed to be continued. An outlay of Rs. 35.00 lakhs is provided for this purpose for the Seventh Plan.

Inter-State Migrant Workmen Act (Agricultural)

9.10.6.6. The Inter-State Migrant Workmen Act specifies the facilities to be provided to migrant workers. In South Gujarat, a large number of workers come from Maharashtra for sugarcane cutting and they are required to be provided amenities under the Act. It is difficult to enforce the provision of the Act at present as the entire labour force is scattered in large areas of Valsad and Surat districts. In order to ensure effective enforcement it is essential to have a district supervisory organisation. It is, therefore, proposed to create a cell for which a provision of Rs. 9.00 lakhs is made in the Seventh Five Year Plan, 1985-90.

Welfare Programme for Intra-State Migrant Workers (Agriculture)

9.10.6.7. Migration of labourers within the State from one district to another in search of work is increasing considerably. This phenomenon has been found mainly among the tribal workers of the eastern track of the State who migrate from areas having perennial irrigation facilities. The economic condition of the 'Intra-State' migrant workers is found to be far from satisfactory and their plight worsens in the absence of legislation. The children are the worst sufferers since they are not only deprived of education but also do not get such basic facilities as medical care, nutrition, etc. It is, therefore, proposed that intra-State migrant workers numbering about 0.75 lakh be provided with basic facilities for a period of six months in a year when they migrate to other districts. The Scheme envisages the appointment of an honorary organiser for every 500 workers in the State on payment of Rs. 400 as honorarium, and expenditure of Rs. 600 for other facilities such as refreshment to children, nursery classes, informal education, etc., per month. To look after the interest of intra-State migrant workmen who are scattered over a large area and are mostly tribals a separate cell is proposed, Total provision of Rs. 26.00 lakhs is made in the Seventh Five Year Plan, 1985-90.

Establishment of the Rural Workers Welfare Board

9.10.6.8 The establishment of Rural Workers Welfare Board has brought new hope for the weaker sections, particularly agricultural labourers through 100 rural welfare centres spread over the State. The rural welfare centres work as a window for the rural poor and assist rural workers in securing economic benefits from on-going Government schemes.

9.10.6.9. With the increase in the number of talukas having 10,000 or more population of agricultural labourers, it is proposed to open 60 new village level welfare centres during Seventh Five Year Plan. The 101 centres opened during the Sixth Plan do not have their own buildings. Buildings for the new centres will also be necessary at an estimated construction cost of Rs. 30,000 per centre. Rs. 7.50 lakhs is provided for 25 buildings during the Seventh Five Year Plan. In addition 2 regional offices would be set up to look after this scheme. A total outlay of Rs. 40 lakhs has been provided for this scheme during the Seventh Plan.

Rehabilitation of bonded labour

9.10.6.10. Rehabilitation of released bonded labourers is an item under the 20 Point programme. In Gujarat 61 bonded labourers have been freed, of these 38 have been rehabilitated during the Sixth Five Year Plan through the provision of durable assets; the remaining labourers are to be provided assistance during the Seventh Plan for which a provision of Rs. 2.50 lakhs is made.

STATEMENT

Schemewise outlays for the Seventh Plan 1985-90

(Rs. in lakhs)

Sr. No. 1	No. and Name of the Scheme 2	Outlay Provided 3
(A) Employment Service & Training		
<i>I Education & Training</i>		
<i>(a) Craftsmen Training</i>		
1	EMP-1 Craftsmen Training	2350.00
2	EMP-2 Advanced Vocational Training Scheme	250.00
3	EMP-3 Construction of Building for the centre for rehabilitation of disabled women	60.00
4	EMP-4 Grant-in-aid to private agencies for I.T.I. based courses	105.00
	Total (a) Craftsmen Training	2765.00
5	EMP-5 National Apprenticeship Scheme	300.00
	Total (I) Education and Training	3065.00
<i>II. Employment Service</i>		
6	EMP-6 Strengthening the Directorate of Employment & Training	40.00
7	EMP-7 Expansion of Employment Service	160.00
8	EMP-8 Collection of Employment Market information	8.00
9	EMP-9 Studies & Surveys for Employment Promotion Board	3.00
10	EMP-10 Youth employment service-occupational information & research analysis	8.00
11	EMP-11 Formation of District Employment Generation Councils	35.00
12	EMP-12 Grant of awards & employment service for physically handicapped	6.00
13	EMP-13 Strengthening the Directorate of Manpower	5.00
	Total (II) Employment Service	265.00

1	2	3
	<i>III Special Employment Programme</i>	
14	EMP-14 Career Development Courses	30.00
15	EMP-15 MINI I.T.Is	700.00
16	EMP-16 Scheme for pre-service training for recruitment in defence services	25.00
17	EMP-17 Pre-service training scheme for competitive examinations for SC/ST	25.00
18	EMP-18 Induction Training for Industrial Employment	150.00
	Nucleus budget	45.00
	Total (III) Special Employment Programme	975.00
	Total (A) Employment Service & Training	4305.00

(8) Labour Service and Welfare

I Industrial Relations

20.	LBR—1 Expansion of Labour establishment	39.00
21.	LBR—2 Modernising Library in Head-quarters offices	2.00
22.	LBR—3 Protection and Welfare of Unorganised labour (Contract Labour)	3.00
23.	LBR—4 Grant-in-aid to trade union workers and others	2.50
24.	LBR—5 Workers' participation and Joint Management Council	2.50
25.	LBR—6 Machinery for implementation of Minimum Wages Act	10.00
26.	LBR—7 Opening of new Industrial Tribunals and Labour Courts	60.00
27.	LBR—8 Construction of office buildings and Judges' and staff quarters for Industrial Tribunals and Labour courts	70.00
	Total	189.00

1	2	3
<i>II Working Conditions & Safety</i>		
28	LBR-9 Safety cell for prevention of accidents	35.00
29	LBR-10 G.I.A. to voluntary agencies for safety, propagation and training in industrial sphere	2.00
30	LBR-11 Strengthening the establishment of Chief Inspectorate of Factories	50.00
31	LBR-12 Expansion of establishment under Chief Inspectorate of Steam Boilers	10.00
32	LBR-13 Occupational Health	5.00
	<i>Total II Working Conditions and Safety</i>	102.00
<i>III General Labour Welfare</i>		
33	LBR-14 Enforcement Machinery for Interstate Migrant Workmen Act, 1979.	15.00
34	LBR-15 Protection of unorganised labour including Satem Commission.	87.50
35	LBR-16 Non Formal education for Child Labour	4.00
	<i>Total III General Labour Welfare</i>	106.50
<i>IV Social Security for Labour</i>		
36	LBR-17 G.I.A. to trade unions & social institutions for socially desirable objectives	10.00
37	LBR-18 Old age pension for agricultural labourers	35.00
38	LBR-19 Inter-state Migrant Workers Act, (Agriculture)	9.00
39	LBR-20 Welfare Programme for inter-state migrant workers (Agriculture)	26.00
	<i>Total IV Social Security for Labour</i>	80.00
<i>V Research & Statistics</i>		
40	LBR-21 Unit for collection of labour statistics	20.00
41	LBR-22 Creation of legal cell & planning unit in Labour and Employment Department	6.00
	<i>Total V Research & Statistics</i>	26.00

1	2	3
	VI	<i>Other promotional activities like development of institutions</i>
42.	LBR-23	Implementation of Gujarat Unprotected Manual Workers (Regulation) Act, 1979 to constitute a statutory Board
		10.00
43.	LBR-24	Grant-in-aid to Gandhi Labour Institute for research, training and development programme
		50.00
44.	LBR-25	Establishment of Rural Labour Welfare Board
		40.00
		<u>100.00</u>
	Total VI-Other promotional activities	
		<u>100.00</u>
	2 Centrally Sponsored Scheme	
45.	LBR-26	Abolition of bonded labour system
		2.50
		<u>2.50</u>
		2.50
	TOTAL (B) LABOUR SERVICE AND WELFARE	
		<u>606.00</u>
	GRAND TOTAL :	
		<u>4911.00</u>

9.11 WELFARE OF BACKWARD CLASSES

9.11.1. Introduction

9.11.1.1. In the Constitution of India, special mention has been made for the amelioration of weaker sections of our society. It has been specifically directed that the State shall promote, with special care, the educational 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 exploitation. In conformity with these provisions, vigorous and systematic efforts are being made by the Government to bring about socio-economic amelioration of the weaker sections of the society in general and of the backward classes in particular.

9.11.1.2. The Government of India have classified the Backward Classes into four main categories *i. e.* Scheduled Castes, Scheduled Tribes, Nomadic Tribes and Denotified Tribes. Gujarat State has also adopted the above classification. In addition, the State Government had appointed a Commission popularly called as Baxi Commission to study the social and economic conditions of the backward classes (other than scheduled castes and the scheduled tribes) and to suggest measures for their upliftment. The State Government accepted the recommendations made by the Baxi Commission fully and decided to implement the same with effect from the year 1978-79. Government also decided to consider 78 castes/classes/groups identified by the Commission as Socially and Educationally backward classes (SEBC). Besides, the Government has also decided to give certain benefits to persons with a family income limit of Rs. 4,800/- per annum and following specified occupations. These people have been designated as Economically Backward Classes (EBC). Further, from 1978-79, the State Government has also taken up the implementation of welfare schemes for religious and linguistic minorities. Thus, in Gujarat, the following seven categories are recognised as backward classes :—

- (i) Scheduled Castes
- (ii) Scheduled Tribes
- (iii) Nomadic Tribes
- (iv) Denotified Tribes
- (v) Socially and Educationally Backward Classes,
- (vi) Economically Backward Classes, and
- (vii) Minorities.

9.11.1.3. The population of Scheduled Castes in the State, as per 1981 Census, is 24.38 lakhs and that of Scheduled Tribes is 48.48 lakhs *i. e.* 7.15% and 14.22% respectively of the total population of 340.86 lakhs of the State. Nomadic Tribes and Denotified Tribes population is estimated at 7 lakhs. Socially and Educationally Backward Classes and Economically backward classes constitute a sizeable proportion of State's population. The population of the Minorities is 30.00 lakhs. Various development programmes in general sectors are also aimed at taking ameliorative measures for the people living below the poverty line, small and marginal farmers etc., These categories would include a large majority of the backward classes classified above. All departments are required to make special provisions for Scheduled Castes and Scheduled Tribes and these are aggregated into Special Component Plan for Scheduled Castes and Tribal Area Sub-Plan for Scheduled Tribes. Similarly, special schemes which are of supplementary nature are prepared for the welfare of other Backward Classes to bring them on a par with other sections of the Society.

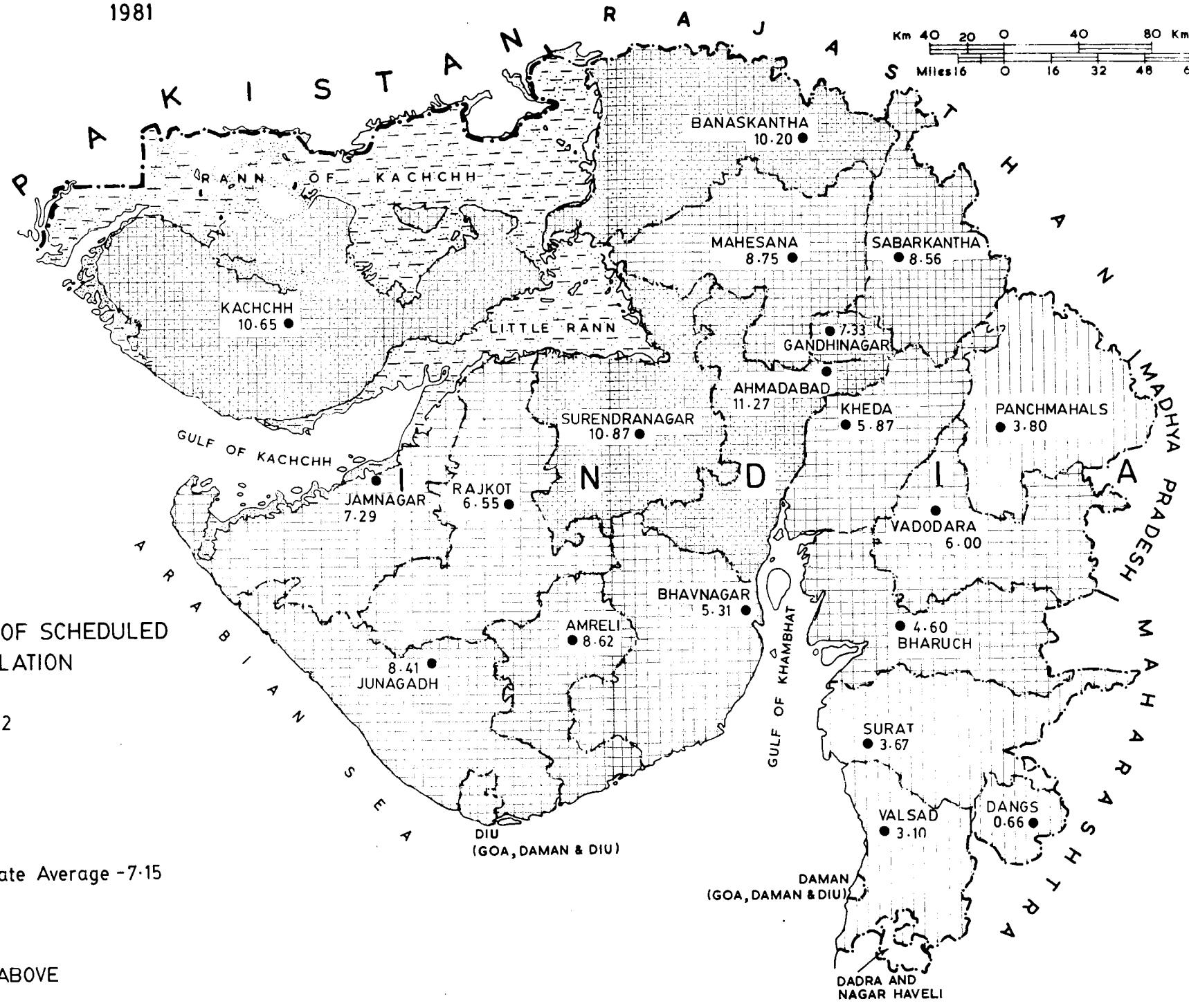
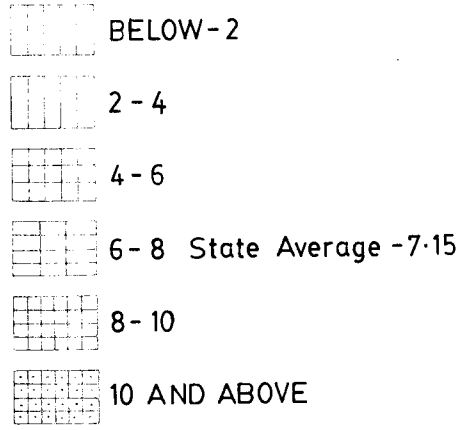
GUJARAT

SCHEDULED CASTES POPULATION 1981

BOUNDARIES:
INTERNATIONAL
STATE / UNION TERRITORY
DISTRICT



PERCENTAGE OF SCHEDULED CASTES POPULATION



ON SURVEY OF INDIA MAP WITH THE PERMISSION OF THE
GENERAL OF INDIA
TERRITORIAL WATERS OF INDIA EXTEND INTO THE SEA TO A DISTANCE OF TWELVE NAUTICAL MILES
FROM THE APPROPRIATE BASE LINE.
LIABILITY FOR THE CORRECTNESS OF INTERNAL DETAILS RESTS WITH THE PUBLISHER.

9.11.1.4. Nearly 80% population of Scheduled Tribes is concentrated in 32 - Talukas of 8 districts and Tribal Area Sub-Plan is being implemented since 1975-76 in these talukas and 15 pockets of tribal concentration. The population of Scheduled Castes is, scattered all over the State with a little more concentration in North Gujarat and Saurashtra Districts. The other backward classes are also spread all over the State almost uniformly. For economic upliftment of Scheduled Castes and Scheduled Tribes, the Scheduled Castes Economic Development Corporation and The Gujarat Tribal Development Corporation have been set up. Similarly, for Socially and Educationally Backward Classes and the minorities, The Gujarat Backward Class Board and Gujarat Minorities Board are functioning.

9.11.2. Review of Progress during the Sixth Plan.

9.11.2.1. Emphasis is laid on special development programmes for the Welfare of Scheduled Castes, Scheduled Tribes, Nomadic Tribes and Denotified Tribes.. Welfare programmes are also undertaken for Socially and Educationally Backward Classes, Economically Backward Classes and Religions and linguistic Minorities.

9.11.2.2. The Sixth Plan envisaged an outlay of Rs. 8,000.00 lakhs under State plan and Rs. 752.50 lakhs under Centrally sponsored programmes.

9.11.2.3 During the Sixth Plan the total anticipated expenditure will be of Rs. 9298.80 lakhs against the original outlay of Rs. 8,000.00 lakhs. Amongst - three groups of schemes viz. Education, Economic Uplift and Health, Housing and other schemes, the schemes of Education are given top priority to a raise the level of literacy. As a result of this, the literacy level among S. C. and S. T. has improved as can be seen from the table below :—

Year	General Literacy rate	Literacy rate in S. C.	Literacy rate in S. T.
1	2	3	4
1961	30.45	22.46	11.69
1971	35.79	27.74	14.12
1981	43.70	39.79	21.14

9.11.2.4. The Government took various important measures during Sixth Plan for the advancement of Backward classes. Some are indicated below :—

The rates of Post Matric Scholarship (Government of India) have been enhanced.

The income limit for Pre S. S. C. Scholarships is raised from Rs. 6,000/- to - Rs. 7,200/- p. a.

The stipends in the B. C. Hostels and Ashram Schools have been raised from Rs. 75/- per month to Rs. 100/- per month.

Assistance for Hostel Building is raised from Rs. 50,000/a to Rs. 1,50,000/-.

The rates of Scholarships in Training-cum-production centres have been raised from Rs. 65/- to 100/- per month.

The scheme for granting assistance to medical graduates upto Rs. 15,000/- on the basis of Rs. 7,000/- as subsidy and Rs. 8,000/- as interest free loan, was introduced. From the year 1982-83 new scheme of giving loan as margin money upto Rs. 22,500/- and subsidy up to Rs. 7,500/- to the medical post graduates belonging to Scheduled Castes and Scheduled Tribes has been introduced so as to enable such persons to start their clinics.

The ceiling for granting financial assistance under Halpati Housing Scheme was raised from Rs. 2,000/- to Rs. 3,000/- during 1980-81 and subsequently raised to Rs. 5,000/-

75 New Balwadies for Scheduled Castes, 12 Balwadies for N. T. and D. N. T. S. and 31 new balwadies are sanctioned for the Scheduled Tribes under the Tribal Area Sub-Plan.

The more backward communities like Bhangr, Hadi, Nadia and Senva (in Scheduled Castes) and Kolgha, Kotwalia, Padhars etc. (in Scheduled Tribes) are given special scholarships at Rs. 140/- to boy students and Rs. 190/- to girl students in Std. I to VII.

Under Special Cell at State level 18 intensive units, 3 vigilance units and 3 mobile propaganda units are sanctioned for removal of untouchability.

The rates of assistance in the case of social boycott and other calamity are increased.

In the cases of atrocities to SC/ST persons, the amount of relief for murder, injury and other calamity has been raised.

9.11.3. Programme for Seventh Plan (1985-90)

9.11.3.1. As against the total outlay of Rs. 8,000 lakhs for the Sixth Plan for Backward Class Welfare, the outlay provided for Seventh Plan is Rs. 11,527.00 lakhs. Broad break-up of this outlay is as under :—

(Rs. in lakhs)

Sr. No.	Category	Group	Seventh Plan 1985-90 Outlay
1	2	3	4
1.	Scheduled Castes	Education	1816.50
		Economic Uplift	892.30
		Health, Housing and Others	734.90
		Dir. and Adm.	234.30
		TOTAL	3678.00
2.	Scheduled Tribes	Education	325.00
		Economic Uplift	299.50
		Health, Housing and Others	301.60
		Dir. and Adm.	100.90
		TOTAL	1027.00

1	2	3	4
3.	Tribal Area Sub-Plan	Education	729.30
		Economic Uplift	989.70
		Health, Housing and Others	1030.60
		Dir. and Adm.	323.40
		TOTAL	3073.00
4.	N. T. and D. N. T.	Education	176.00
		Economic Uplift	118.00
		Health, Housing and Others	74.00
		Dir. and Adm.	..
		TOTAL	368.00
5.	S. E. B. C.	Education	1340.40
		Economic Uplift	570.80
		Health, Housing and Others	453.60
		Dir. and Adm.	118.80
		TOTAL	2483.00
6.	E. B. C.	Education	345.80
		Economic Uplift	118.60
		Health, Housing and Others	93.00
		Dir. and Adm.	6.60
		TOTAL	564.00
7.	Minorities	Education	84.20
		Economic Uplift	162.40
		Health, Housing and Others	74.20
		Dir. and Adm.	13.20
		TOTAL	334.00
8.	Grand Total	Education	4817.20
		Economic uplift	3151.30
		Health, Housing and others	2761.30
		Dir. and Adm.	797.00
		Total:	11527.00

9.11.3.2. Most of the schemes of the Sixth Plan are to be continued during the Seventh Plan. Besides, a few new schemes are also proposed to be implemented. High light of the programmes envisaged for the Seventh Plan 1985-90 are as under :—

Education :—

(1) In pre S.S.C. Standards 9,48,662 students will be given scholarship. In addition total 1,05,126 other students will also be given educational facilities as under scholarship.

(a) For Pre S.S.C. 5517 students coming from the families engaged in unclean occupation.

- (b) Post S.S.C. scholarship to 3200 girl students.
 - (c) 7650 students from N.T./D.N.T./S.E.B.C. and E.B.C.
 - (d) 56799 students for Higher Secondary Education.
 - (e) 31960 students for Technical and Professional courses.
- (2) Government also proposes to start Higher Secondary Residential Schools on the lines of Andhra Pradesh Government so that backward Class students (including the SC/ST students) are provided better facilities to improve their level of performance at Secondary and Higher Secondary level.
- (3) New 12 Government hostels, 365 grant-in-aid hostels and 225 Ashram Schools will be opened and 50 post basic Ashram Schools will be upgraded to higher secondary education level after considering viability.
- (4) In all 30 hostels buildings will be constructed and land will be purchased for 49 Government hostels,
- (5) For higher Secondary standards and post-matric courses, 64449 students will be awarded post matric scholarship over and above 2.50 lakhs students to be awarded under 100% C.S.P. scheme.
- (6) 519430 students belonging to more backward communities will be paid special scholarship at enhanced rates including opportunity cost.
- (7) In primary standards 7,22,500 children will be provided with free books and clothes.

Economic Uplift

- (1) About 149798 persons will be given subsidy for cottage industries, self-employment etc.
- (2) Financial assistance will be given to 685 lawyers and 671 doctors so as to enable them to start their own profession.
- (3) Training Complex at Gandhinagar and present Pre. Exam. training centres will be developed.
- (4) 38400 persons will be given financial assistance for training through approved artisans and at workshops.
- (5) 11500 more trainees will be trained in various crafts in P.C.P.C.
- (6) The S. C. Corporation, S. T. Corporation B. C. Board, and Minorities Board will be given Rs. 1094.80 lakhs as share capital and administrative grants.

Health Housing and Others :

- (1) Medical aid will be provided to 54798 Persons.
- (2) New 490 balwadies will be sanctioned.
- (3) 32881 houses will be constructed on individual basis.
- (4) 19100 houses will be given to backward class persons through various Housing Boards.

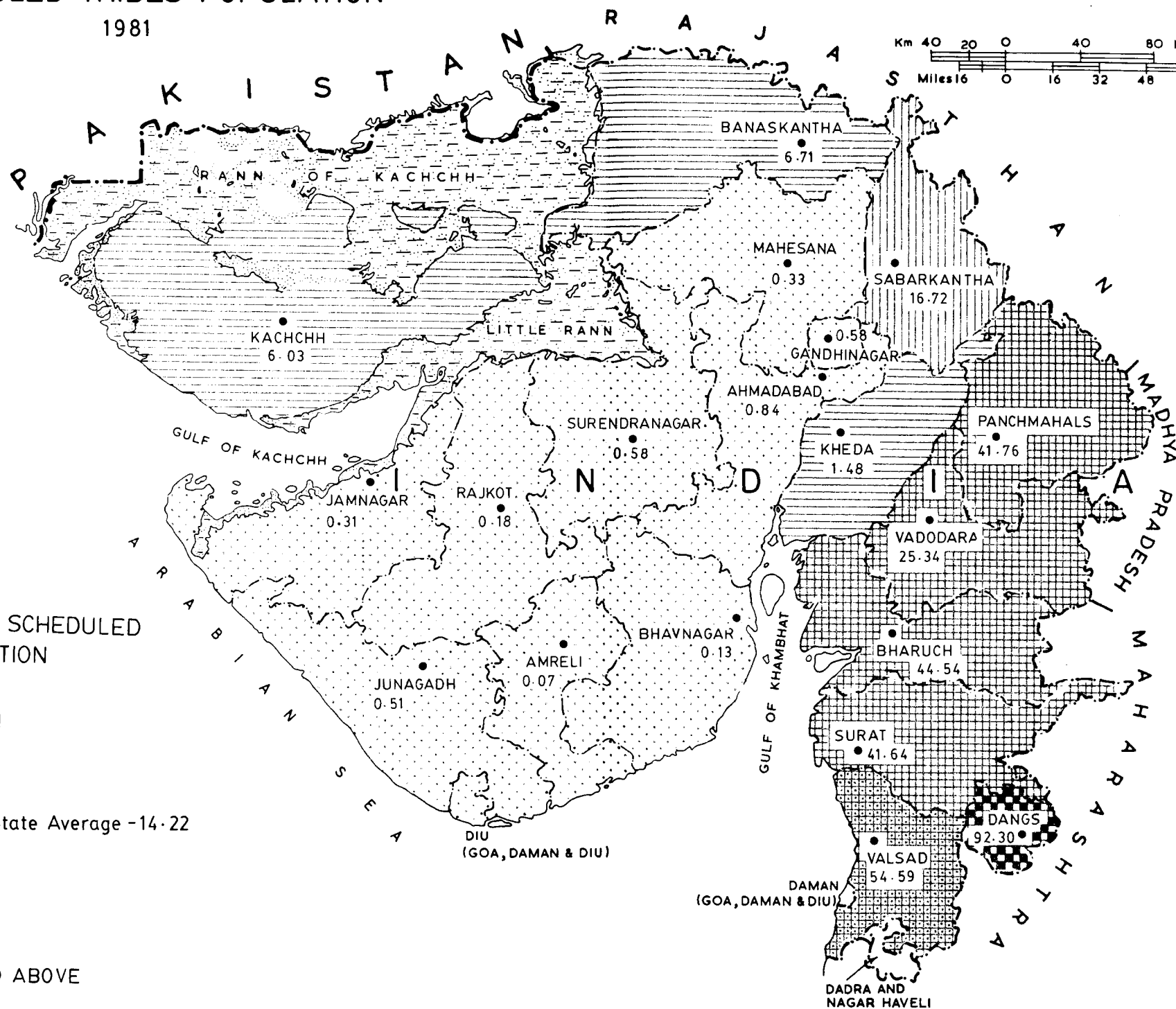
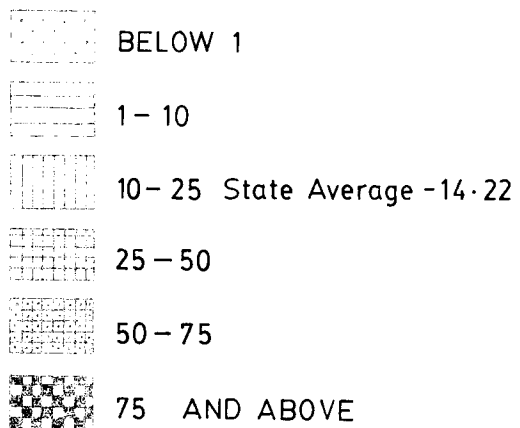
GUJARAT

SCHEDULED TRIBES POPULATION 1981

BOUNDARIES:
INTERNATIONAL
STATE / UNION TERRITORY
DISTRICT

Km 40 20 0 40 80 Km
Miles 16 0 16 32 48 64

PERCENTAGE OF SCHEDULED TRIBES POPULATION



(5) 6357 Halpatis will be given aid for housing.

(6) Financial assistance for housing will be provided to 6633 sweepers and Bhangi, Hadi, Senva, Nadia, families

(7) The present units of T.R.T.I., Nagric Cell and Research Unit for S.C. will be developed.

(8) 4 New Community Centres will be started.

Direction and Administration.

(1) In pursuance to the separation of the Social Welfare Department and the Tribal Development Department, administrative machinery at all levels is proposed to be strengthened.

(2) New Cell for Evaluation and monitoring will be opened.

(3) New Cell for follow-up of job-oriented and training schemes will be created.

New Schemes :

9.11.3.3. During the period of Seventh Five Year Plan it is also Proposed to implement following new schemes.

(1) In order to expedite the construction of Government hostels it is proposed to purchase land for hostel buildings where Government land is not available. A total provision of Rs. 99.60 lakhs is provided for this purpose.

(2) As mentioned earlier in Sub-Para 2 pertaining to "Education" under para 9.11.3.2., every year, 10 Ashram Schools are proposed to be upgraded from Post Basic School to Higher Secondary Schools with emphasis on Science subjects. Further, it is proposed to start Residential Higher Secondary Schools on the lines of similar schools started by Andhra Pradesh Government. The idea is to start 4-5 such schools, one in each region and to extend the schemes in the next Plan so that one school is set up in each district. Admission to these schools will be open to all backward students i. e. SC, ST etc. including the economically backward students. The admission to these schools will be on the basis of merit only. These schools will be provide model facilities so that the students full potential is developed and they are able to fill up the vacancies reserved for them in the various technical courses and also compete for higher Government services after graduation.

(3) The agriculturists belonging to SC/ST are so poor that they are not in a position to get their electric motors/oil engines etc. repaired for irrigation purposes. It is, therefore, proposed to give a subsidy of Rs. 1000/- for repair of oil engines etc. with a provision of Rs. 16.60 lakhs.

(4) The qualified persons belonging to SC, ST and SEBC are not able to start pathological laboratory to medical stores. It is therefore, proposed to give Rs. 20,000/-- to an individual.

(5) Backward class people are not in a position to purchase private land. It is, therefore, proposed to give financial assistance of Rs. 2,000/- to Rs. 5,000/- per acre for purchase of land upto 3 acres, 50% of the assistance being subsidy. A provision of 37.00 lakhs is provided for this scheme.

(6) Most of the Balwadis are functioning in rented houses. It is Proposed to give financial assistance upto Rs. 25000/- for construction of building for such balwadis.

(7) The "Chamars" in villages are performing flaying in the residential areas which is unhyenic. It is proposed to give Rs. 5,000/- to a gram-panchayat to help such charmars in shifting their flaying yards out of the village Rs. 10.00 lakhs are provided for the scheme.

(8) The landless labourers will be given subsidy utpto Rs. 500/- each for the purpose of necessary implements for Casual labour work. A provision of Rs. 52.30 lakhs is proposed for this purpose.

20 Point Programme

9.11.3.4. The Revised Twenty Point Programme announced in January, 1982 is a blue print for social Transformation and the accelerated programme for the development of SC/ST is one of the point (No. 7) of this programme. poverty alleviation is one of the basic components of the Seventh Plan strategy. Accordingly special attention has to be paid to the problems of S.CS and S. Ts who form the bulk of the population below the poverty line. The following agencies are rendering assistance in bringing the families belonging to S.C./S.T. above the proverty line:—

- (i) Integrated Rural Development Programme.
- (ii) Scheduled Castes Economic Development Corporation.
- (iii) Gujarat Tribal Development Coporation.
- (iv) Director of Cottage Industries.
- (v) Director of Animl Husbandry.
- (vi) Tribal Development Commissioner.

These institutions identify the schemes and the beneficiaries and provide subsidy. The banks provide the loan assistanced. In Seventh Plan, it is proposed to provide assistance to 1088.00 lakhs SC/ST and others as subsidy for cottage industries, self employment etc.

Centrally Sponsored Programme.

9.11.3.5. The details of the outlays proposed for fully Centrally Sponsored schemes and Centrally Sponsored Schemes on sharing basis are as under:—

(Rs. in lakhs)

Category	Proposed for 1985-90
100% basis	
Scheduled Castes	800.00
Scheduled Tribes	500.00
Total	1300.00
50% Matching basis	
Scheduled Castes	1990.00
Scheduled Tribes	432.00
Total	2422.00

STATEMENT

List of Schemes Included in the Seventh Five Year Plan 1985--90

(Rs. in lakhs)

Sr. No. and Name of the Schemes No.		Outlay for Seventh Plan 1985-90	
1	2	3	
EDUCATION :			
1	BCK-1 Examination fees	S.C.	16.50
		S.T.	5.00
		TASP.	3.50
		NT	2.50
		DNT	2.50
		SEBC	16.50
		EBC	16.50
		MINO.	5.00
		TOTAL	68.00
2	BCK-2 Tuition fees	S.C.	53.00
		S.T.	3.30
		TASP	1.50
		NT	2.00
		DNT	2.00
		TOTAL	61.80
3	BCK-3 State Scholarships for Pre SSC Students	S.C.	110.00
		S.T.	43.00
		TASP	20.00
		NT	8.00
		DNT	8.00
		SEBC	402.50
		EBC	100.00
		MINO	20.00
TOTAL	711.50		

1	2	3
4 BCK-4	State Scholarships for Pre--SSC student comming from the families engaged in unclean occupation	S.C. 80.00
5 BCK-5	State Scholarships for Post SSC girl Students not eligible because of income creteria, Service and family Size	S.C. 6.50
		S.T. 10.00
		TASP 10.50
		NT 2.50
		DNT 2.50
		SEBC ..
		MINO ..
		TOTAL 32.00
6 BCK-6	Scholarships for post SSC Students (other than SC/ST) like NT/DNT & SEBC Students	NT 15.00
		DNT 15.00
		SEBC 39.50
		EBC 7.00
		MINO ..
		TOTAL 76.50
7 BCK-7	Scholarships for students of Higher Secondary Education	SEBC 109.00
		EBC 100.00
		MINO 46.60
		TOTAL 255.60
8 BCK-8	Scholarships for Technical and Professional courses.	S.C. 76.00
		S.T. 2.00
		TASP 4.00

1	2	3
		NT 4.00
		DNT 4.00
		SEBC 103.00
		EBC 119.00
		MINO 7.60
		TOTAL 319.60
9	BCK-9 Free books & clothes to children	
		S.C. 160.00
		S.T. 16.00
		TASP 40.00
		NT 10.00
		DNT 10.00
		SEBC 53.00
		TOTAL 289.00
10	BCK-10 Opportunity cost to girls students belonging to certain communities SC & ST in Std. I to VII.	
		S.C. 224.00
		S.T. 13.20
		TASP 50.00
		TOTAL 287.20
10A	BCK-10A Opportunity cost to boy students belonging to certain communities of SC, ST, boys & girls students of NT/DNT and 24 communities of SEBC in Std. I to VII.	
		SC 700.00
		S.T. 50.00
		TASP 110.00
		NT 15.00
		DNT 15.00
		SEBC 165.00
		TOTAL 1055.00

1	2		3	
11	BCK-11	Special Scholarships to boy & girl students belonging to Bhangi, Hadi, Nadia, & Senva in SC & Colcha, Colgha, Kotwalia, Kathodi, Dubla, Padhar, in ST & 24 communities SEBC studying in Std. VIII to X.	S.C.	26.00
			S.T.	5.00
			TASP	16.00
			NT	2.00
			DNT	2.00
			SEBC	26.00
			TOTAL	77.00
12	BCK-12	Book Bank for Medical & Engineering College students.	S.C.	6.50
			S.T.	3.30
			TASP	6.60
			NT	2.00
			DNT	2.00
			SEBC	7.00
			MINO	--
			<u>TOTAL</u>	<u>27.40</u>
13	BCK-13	Grant-in-aid to Backward Class hostels (SC/ST SEBC & NT DNT) including General (Cosmopolitan) hostel & Electrification of hostel.	S.C.	99.00
			S.T.	55.00
			TASP	70.00
			NT	8.00
			DNT	8.00
			SEBC	100.00
			MINO	5.00
			TOTAL	345.00
14A	BCK-14A	Grant-in-aid to Backward Class Hostels for boys & Girls (SC,ST) for construction	SC	40.00
			ST	13.20
			TASP	30.00
			TOTAL	83.20

1	2	3	
14B	BCK-14B Grant-in-aid to Backward Class Hostels for boys and girls (NT, (DNT & SEBC) for construction	NT	7.00
		DNT	7.00
		SEBC	65.00
		EBC	..
		TOTAL	79.00
15	BCK-15 Admission to SC/ST student in college hostels	SC	8.00
		ST	1.60
		TASP	5.00
		NT	2.00
		DNT	2.00
		SEBC	6.50
TOTAL	25.10		
16	BCK-16 Additional coaching centre in Grant-in-aid and Government hostels	SC	6.00
		ST	5.00
		TASP	5.20
		SEBC	10.00
		EBC	3.30
TOTAL	29.50		
17	BCK-17 Development of Government Hostel for boys and girls and Establishment of new ones	SC	34.00
		ST	13.20
		TASP	25.00
		NT	..
		DNT	..
		SEBC	13.00
		EBC	..
		MINO.	..
TOTAL	85.20		
18	BCK-18 Construction of Government hostel for boys and girls	SC	65.00
		ST	10.00
		TASP	40.00
		NT	..
		DNT	..
		SEBC	66.00
		EBC	..
Mino.	..		
TOTAL	181.00		
19	BCK-19 Purchase of private land for construction of Government hostel for boys and girls	SC	40.00
		ST	13.20
		TASP	20.00
		SEBC	26.40
TOTAL	99.60		

1	2		3
20.	BCK-20	Ashram Schools	
			SC 66.00
			ST 43.00
			TASP 110.00
			NT 8.00
			DNT 8.00
			SEBC 132.00
			TOTAL 367.00
21.	BCK-21	Post Basic Ashram Schools	
			ST 20.00
			TASP 162.00
			TOTAL 182.00
		TOTAL EDUCATION	
			SC 1816.50
			ST 325.00
			TASP 729.30
			NT 88.00
			DNT 88.00
			SEBC 1340.40
			EBC 345.80
			MINO. 84.20
			TOTAL 4817.20
		ECONOMIC UPLIFT	
22.	BCK-22	Financial Assistance for purchase of camel cart and bullock cart etc.	
			SEBC 18.00
			EBC 6.60
			MINO. —
			TOTAL 24.60
23.	BCK-23	Financial Assistance for self employment in cottage industries and traditional occupations like vadi Bhavaiya etc.	
			SC 240.00
			ST 150.00
			TASP 264.00
			NT 38.00
			DNT 38.00
			SEBC 211.00
			EBC 76.00
			MINO. 71.00
			TOTAL 1088.00
24.	BCK-24	Financial Assistance to law and Medical Graduates	
			SC 35.00
			ST 13.00
			TASP 13.00
			NT 8.00
			DNT 8.00
			SEBC 33.00
			MINO. ..
			TOTAL 110.00

1	2		3
25. BCK-25	Financial Assistance to Medical Post-Graduate for starting Clinic Pathological laboratory Medical Stores.	SC	20.00
		ST	6.20
		TASP	13.00
		TOTAL	39.20
25. BCK-26	Tailoring centres for women	SC	6.50
		ST	1.50
		TASP	6.00
		NT	2.00
		DNT	2.00
		SEBC	6.60
		MINO.	4.00
		TOTAL	28.60
27. BCK-27	Mahila training-cum-production centre (Radio, T. V. Repairing centre)	SC	13.00
		ST	6.50
		TOTAL	19.50
28. BCK-28	Training to Backward Class artisans at approved workshop.	SC	20.00
		ST	10.00
		TASP	20.00
		NT	5.00
		DN	5.00
		SEBC	36.00
		EBC	20.00
		MINO.	21.00
TOTAL	187.00		
29. BCK-29	Setting up and running of training-cum-production centre.	SC	33.00
		S	13.00
		TASP	33.00
		SEBC	104.00
		MINO.	8.60
		TOTAL	191.60
30. BCK-30	Construction of Building for Training-cum-production centre.	SC	10.00
		ST	5.00
		TASP	18.00
		SEBC	6.20
		TOTAL	39.20
31A. BCK-31A	Pre-Examination Training centre for SC & S .	SC	6.50
		ST	3.00
		TASP	7.00
		SEBC	7.00
		TOTAL	23.50

1	2	3
31B. BCK-31B	(i) Short-hand typing classes for SC and ST	SC 6.50 ST 3.00 TASP 3.00
		TOTAL 12.50
	(ii) Pre-Examination Training Centre and short-hand typing classes for NT, DNT and SEBC	NT 2.00 DNT 2.00 SEBC 3.00
		TOTAL 7.00
	TOTAL of (i) and (ii)	19.50
32. BCK-32	Coaching centre for administration field jobs such as constabulary teachership and for those preparing for para medical services.	TASP 3.50
33. BCK-33	Training complex at Gandhinagar	SC 35.00 ST 35.00
		TOTAL 70.00
34. BCK-34	Stipend to Backward Class students for I.A.S. ,I.P.S. and allied services	SC 3.50 ST 3.50
		TOTAL 7.00
35. BCK-35	Dry hostel for technical courses trainees under apprenticeship I.T.I. and other professional old name apprentice hostel.	SC 3.00 ST 3.00 TASP 3.00
		TOTAL 9.00
36. BCK-36	Working men's shed	SC 6.50 ST 6.50 TASP 7.00 SEBC ..
		TOTAL 20.00
37. BCK-37	Working me's Hostel	SC 6.80 ST 7.00
		TOTAL 13.80
38. BCK-38	Scheduled Castes and Scheduled Tribes corporation and other Boards,	SC 396.00 TASP 554.00 SEBC 79.00 EBC 13.00 MINO. 52.80
		TOTAL 1094.80

1	2		3
39.	BCK-39	Financial Assistance to agricultural Labourers for purchase of equipments.	SC 8.50 ST 6.80 TASP 13.00 NT 3.00 DNT 3.00 SEBC 10.00 EBC 3.00 MINO. 5.00 <hr/> TOTAL 52.30
40.	BCK-40	Financial Assistance to Backward Class farmers for purchasing agricultural land.	SC 13.00 ST 5.00 TASP 10.00 NT 1.00 DNT 1.00 SEB 7.00 <hr/> TOTAL 37.00
41.	BCK-41	Financial Assistance to Backward Class Farmers for repairing of oil pump and electric motor.	SC 6.50 ST 3.50 TASP 6.60 <hr/> TOTAL 16.60
42.	BCK-42	Financial Assistance for Dealer ship for petrol pump kerosine and gas agency.	SC .. ST 18.00 TASP 15.60 <hr/> TOTAL 33.60
43.	BCK-43	Financial Assistance for shifting of Charma Kunds.	SC 10.00 <hr/> TOTAL 10.00
44.	BCK-44	Financial Assistance to Backward Caste Economic Development Corporation for D.R.I. Scheme	SC 13.00 <hr/> TOTAL 13.00
		Total Economic uplift.	SC 892.30 ST 299.50 TASP 989.70 NT 59.00 DNT 59.00 SEB 570.80 EB 118.60 MINO. 162.40 <hr/> TOTAL 3151.30

HEALTH, HOUSING AND OTHERS

45.	BCK-45	Free Medical aid.	S. C.	42.80
			ST	23.20
			TASP	60.00
			NT	10.00
			DNT	10.00
			SEBC	52.80
			EBC	13.00
			MINO	6.60
			TOTAL	218.40
46.	BCK-46	Balwadis	SC	66.00
			ST	29.80
			TASP	60.00
			NT	10.00
			DNT	10.00
			SEBC	53.00
			EBC	..
			MINO	6.60
			TOTAL	235.40
47.	BCK-47	Special facilities to children for Bal- mandir run by voluntary organisation	SC	6.60
			ST	6.50
			TASP	3.75
			TOTAL	16.85
48.	BCK-48	Financial Assistance to youth and Mahila Mandal for Activities	SC	1.30
			S. T.	0.90
			SEBC	1.30
			EBC	1.00
			MINO	1.00
			TOTAL	5.50
49.	BCK-49	Community centres.	SC	13.20
			ST	5.00
			TASP	26.40
			SEBC	..
			TOTAL	44.60
50.	BCK-50	Financial Assistance to Housing on individual Basis	SC	132.00
			ST	55.00
			TASP	172.00
			NT	12.00
			DNT	12.00
			SEBC	67.00
			EBC	40.00
			MINO	30.00
			TOTAL	520.00

1	2		3
51.	BCK-51	F. A. for individual housing to most B. C. community	SEBC 86.00
52.	BCK-52	F. A. for housing in Urban Areas	SC 33.00 ST 14.50 TASP 10.00 SEBC 33.60 EBC 7.00 MINO. 30.00 <hr/> TOTAL 128.10
53.	BCK-53	F. A. to Halpati housing scheme;	ST 138.00 TASP 429.00 <hr/> TOTAL 567.00
54.	BCK-54	F. A. for housing to sweeper and scavanger	SC 199.00
55.	BCK-55	F. A. to PWR-219 Co. op. housing society	SC 19.80 ST 13.20 TASP 13.20 NT 5.00 DNT 5.00 <hr/> TOTAL 56.20
56.	BCK-56	F. A. to co. operative housing society through rural Housing Board.	Sc .. ST .. SEBC 145.00 EBC 32.00 <hr/> TOTAL 177.00
57.	BCK-57	Free legal assistance for Civil and criminal proceedings.	SC — ST 1.00 TASP 0.75 SEBC 1.00 <hr/> TOTAL 2.75
58.	BCK-58	F. A. to encourage Inter-Caste Marriage between Harijan and Hindu Castes.	SC 9.90
59.	BCK-59	G. I. A. to District panchayat	SC 19.80 ST 9.90 TASP 13.20 SEBC 10.00 <hr/> TOTAL 52.90

1	2		3
60.	BCK-60	Shibir for "Bhangi Kasta Mukti" and Seminar on untouchability.	SC 9.90
61.	BCK-61	Social Education Camp.	SC 3.30 ST 3.30 TASP 3.30 SEBC 3.30 EBC .. MINO ..
			TOTAL .. 13.20
62.	BCK-62	Nagrik Cell	SC 150.00
63.	BCK-63	Tribal Research and Training Institute.	ST 1.30 TASP 10.00
			TOTAL 11.30
64.	BCK-64	Research unit for SC	SC 3.30
65.	BCK-65	Film Project for Tribal	TASP 5.00
66.	BCK-66	Neclens Budget	SC 25.00 TASP 224.00 SEBC ..
			TOTAL 249.00
		TOTAL—HEALTH, HOUSING AND OTHERS SCHEMES	S. C. 734.90 ST 301.60 TASP 1030.60 NT 37.00 DNT 37.00 SEBC 453.00 EBC 93.00 MINO. 74.20
			TOTAL ... 2761.30
DIRECTION AND ADMINISTRATION			
67.	BCK-67	Staff for scheme of civil Protection Right Act.	S. C. 40.00
68.	BCK-68	Special pracharak for Bhangi Welfare	S. C. 26.00
69.	BCK-69	F. A. to voluntary agency for Propaganda and field work and village level administration	SEBC 13.20
70.	BCK-70	Administrative Machinery for post SSC Scholarship	SC 10.00 ST 5.00
			TOTAL .. 15.00

1	2		3
71.	BCK-71	Strengthening of Administrative Machinery at all level	SC 79.20 ST 66.00 TASP 264.00 SEBC 79.40 EBC 6.60 MINO 13.20 TOTAL .. 508.40
72.	BCK-72	Strengthening of staff for special Comp. Plan	SC 53.00
73.	BCK-73	Purchase of and Maintenance of vehicles	SC 13.00 ST 16.50 TASP 39.40 SEBC 13.20 TOTAL .. 82.10
74.	BCK-74	Evaluation Planning and monitoring Cell	SC 6.50 ST 6.80 TASP 10.00 SEBC 6.50 TOTAL .. 29.80
75.	BCK-75	Follow-up Cell for Training and Job orienteal	SC 6.60 ST 6.60 TASP 10.00 SEBC 6.50 TOTAL .. 29.70
		TOTAL DIRECTION AND ADMINISTRATION	SC 234.30 ST 100.90 TASP 323.40 SEBC 118.80 EBC 6.60 MINO 13.20 TOTAL .. 797.20
		GRAND TOTAL :	SC 3678.00 ST 1027.00 TASP 3073.00 NT 184.00 DNT 184.00 SEBC 2483.00 EBC 564.00 MINO 334.00 TOTAL 11527.00

9.12 SOCIAL WELFARE

9.12.1 Introduction

9.12.1.1 Programmes under Social Welfare relate to the welfare of women, destitute and exploited children, handicapped persons and those who are deprived of social opportunities. Women and children have been a vulnerable group of the society needing special care and protection.

9.12.1.2 Deprivation of equal opportunities and amenities for women in their social life is a matter of concern to the planners. Likewise, the problem of children who are victims of unhealthy social environment and who lack affectionate parental care and security in their families or are deprived of basic needs of life and also those who have gone astray. Equally important are the handicapped persons, who need special care.

9.12.1.3 The programmes and activities under Social Welfare have thus a - broad-based compass of measures for destitute and delinquent children, distressed women and young girls who are vulnerable to social evils, young offenders, handicapped persons, old and infirm persons, deserted and divorced women, widows and beggars. The measures to combat these problems include institutional and non-institutional services, or extramural treatment programmes. It also includes programmes for building awareness towards better social life and services so as to generate potential for self-employment, particularly among women as well as programmes for giving preferential share to voluntary organisations in the field of social activities.

9.12.1.4 The population of Gujarat is, 340.86 lakhs as per 1981 Census of which the number of females is 165.33 lakhs. Women aspire to take up petty-occupations of self-employment in order to contribute to the family income for improving the standard of living. Efforts are therefore required to assist these women to become self-reliant through income generating activities.

9.12.2 Review of Progress

9.12.2.1 The programmes for handicapped have become more popular. The benefits to widows in terms of social security and assistance are gradually growing. The Women's Economic Development Corporation established during the Sixth Plan has expanded welfare activities for women and their multiple development in various economic aspects of life. The programme for hostels for working women has benefited 700 women till the end of Sixth Plan. Under the welfare programme for handicapped the number of beneficiaries has also risen to 720 in respect of blind, 690 in respect of deaf and 180 in respect of orthopaedically handicapped and 750 in respect of mentally retarded. The number of persons provided with prosthetic aid is 2000 at the end of the Sixth Plan.

9.12.3 Programme for Seventh Plan, 1985-90

9.12.3.1 An amount of Rs. 728.00 lakhs has been provided in the Seventh Plan 1985-90 for implementing different programmes under this sub-sector. The broad breakup of the outlay is as under :—

Programme	Outlay
Direction and Administration	30.00
Child Welfare	30.00

Women's Welfare	150.00
Education and Welfare of handicapped	200.00
Correctional services	80.00
Welfare of poor and destitutes	20.00
Grant-in-aid to Voluntary organisations	60.00
Other Schemes for social defence	98.00
Prohibition	60.00
Total ..	728.00

Direction and Administration

9.12.3.2. It is proposed to strengthen the State and District level machinery by providing adequate staff to cope up with the increased welfare activities. It is also proposed to start training centre with adequate staff and a good library. It is also proposed to strengthen administrative machinery for the development of new activities. The publicity unit is proposed to be set up both at Directorate and District level in the Seventh Plan.

9.12.3.3 Cells for pension of employees of the institutions of physically handicapped etc. are proposed to be set up with nucleus staff for the expeditious disposal of pension cases. Monitoring and Research units are proposed to be established. An outlay of Rs. 30 lakhs is provided for the period of Seventh Plan for these programmes under Direction and Administration.

Child Welfare

9.12.3.4 It is proposed to continue important existing schemes of child welfare which include the services for child in need of care and protection (C. S. P.) holiday homes, development of child welfare programmes etc. All these schemes are proposed to be expanded to create a wider umbrella for the beneficiaries. It is also proposed to take up new services like Foster Care Schemes to meet the pressing need and to create a healthy society. The programme for providing cottage type homes for destitutes is found useful and at present 1100 children in 44 such units are benefited under the scheme. To meet with the additional requirement 30 such units are proposed during the period of Seventh Plan.

9.12.3.5 The mental hygiene clinic is a very useful programme and 2 more such clinics at Vadodara and Rajkot are proposed. It is proposed to start programme for eradication of juvenile beggary and vagrancy at Vadodara, Surat, Bhavnagar and Palanpur on the pattern of the existing one at Ahmedabad. It is also proposed to link the vocational training component with existing Juvenile Guidance Centres and establish 20 more Juvenile Guidance Centres during the Seventh Plan. An outlay of Rs. 30 lakhs has been provided in the Seventh Five Year Plan for such activities for "Child Welfare".

Women's Welfare

9.12.3.6 The existing programmes for women's welfare are proposed to be continued and expanded. Three existing creches in Government complexes are found useful. Ten new centres to cover 500 beneficiaries are therefore proposed during the period of Seventh Plan.

9.12.3.7 The socio-economic units are proposed to be taken up for new areas. The Mahila Mandals are proposed to be activated for taking up more social and economic responsibilities. The Gujarat Women's Economic Development Corporation, now in a take-off stage is proposed to be strengthened and equipped for implementing more and more schemes of socio-economic upliftment of women during the period of the Seventh Plan. The programme of Social Inputs in Area planning found very useful in two blocks is proposed to be expanded in 30 blocks so that the women living below the poverty line get proper nutritious food, medical and health care. Besides 20 new Family Counselling Centres are proposed to be established during the period of Seventh Plan.

9.12.3.8 The social security measures for rehabilitation of destitute widows will be continued and strengthened. A provision of Rs. 150 lakhs for 1985-90 is made for women's welfare.

Education and Welfare of Physically Handicapped

9.12.3.9 The existing institutional and beneficiary oriented services, are proposed to be continued. A couple of institutions for physically handicapped are proposed to be established including one for mentally deficient girls during the Seventh Plan period.

9.12.3.10 A multiple centre for the handicapped is also proposed to be established. Scholarships and prosthetic aid to the physically handicapped will continue to be given in the Seventh Plan also. The present institutions in Government sector will be developed and parents are also proposed to be trained so that they can be involved in the treatment process. Voluntary agencies in the field are also proposed to be developed in the Seventh Plan. The special employment exchange is proposed to be further extended to the uncovered areas. One Home for Mentally Retarded girls is also proposed to be established during Seventh Plan. An outlay of Rs. 200 lakhs is provided for the implementation of the programmes of Education and Welfare of the Physically Handicapped during 1985-90.

Correctional Services

9.12.3.11 Three Remand Homes in tribal areas established during the Fifth and Sixth Plans are proposed to be developed by providing better facilities. The observation Home at Junagadh is proposed to be converted into Junior Certified School and the Remand Home for girls at Vadodara is also proposed to be converted into Girls Certified School. With the new unified Children Act to come soon, it is proposed to establish relevant infrastructure like Child Welfare Board with adequate inputs. The preventive homes under S. I. T. Act including Government Institutions are proposed to be equipped with case worker and Craft teacher and sophisticated staff. The institute for beggars including retarded female beggars are also proposed to be updated, The orientation programmes and workshops are proposed to be organised for Magistrates, Probationers etc. An outlay of Rs. 80 lakhs is provided for 1985-90 for these types of correctional Services.

Welfare of Poor and Destitutes

9.12.3.12 The after care and rehabilitation programme in terms of scholarships for orphans, rehabilitation assistance to boys and girls from correctional institutions and

vocational assistance to ex-inmates etc. are some of the programmes proposed under this sector. The programmes for the welfare work in prisons and liaison and after care services for prisoners' families are also incorporated under this sub-sector. An outlay of Rs. 20 lakhs has been provided for the activities under Welfare of poor and destitutes during the period of Seventh Plan.

Grants to Voluntary Organisations

9.12.3.13. Voluntary agencies play a very important role in the welfare activities. Liberal grant-in-aid pattern is in force but it is necessary to strengthen the efforts of such voluntary agencies by including following additional items for the purpose of providing grants to them :—

- (1) Grants for starting new services and developing the existing ones
- (2) Grants for repair to buildings
- (3) Grants for propaganda against social vices
- (4) Grants to establish Homes for the aged and for rendering new services for the aged

9.12.3.14 All these services are expected to go a long way in developing balanced structure for social development activities. An outlay of Rs. 60 lakhs has been provided for 1985-90 for the purpose.

Other Schemes of Social Defence

The activities taken up under social defence include construction of buildings for children, women and the physically handicapped. The four buildings which are at the stage of completion will be completed and 20 new buildings will be taken up during the Seventh Plan period. to provide better physical accommodation and conducive environment to the inmates of institutions. An outlay of Rs. 98 lakhs has been provided for 1985—90 for this programme.

Prohibition

9.12.3.15 The activities under prohibition programme include prohibition propaganda, organising shibirs, seminars, Samelans, etc., preparation of documentary films on prohibition, survey work depicting benefits of prohibition etc. A provision of Rs. 60.00 lakhs is made for the following activities in the Seventh Plan 1985-90.

9.12.3.16 Under the programme of prohibition, it is proposed to give grant-in-aid to Social Voluntary agencies. Yuvak and Mahila Mandals for prohibition propaganda. An outlay of Rs. 8.75 lakhs has been provided for the period of 1985-90.

9.12.3.17 For undertaking intensive prohibition drive through various mass media in the State, viz. advertisements on S.T. Buses, Railway Stations, Television, Films, Radio etc., an outlay of Rs. 17.50 lakhs is provided in the Seventh Plan, 1985-90.

9.12.3.18 It is necessary to co-ordinate the activities of various organisations of youth and women in rural as well as urban areas. An outlay of Rs. 2.10 lakhs is provided for Seventh Plan, 1985-90.

9.12.3.19 It is necessary to start departmental and subsidised Sanskar Kendras in the areas having more prohibition crimes. For subsidising these Nashabandhi Sanskar Kendras, an outlay of Rs. 13.66 lakhs is provided for the Seventh Plan, 1985-90.

9.12.3.20 It is proposed to strengthen staff for implementing the programmes at the state level also. An outlay of Rs. 10.29 lakhs is provided for the Seventh Plan, 1985-90 for this purpose.

9.12.3.21 For educating the people on prohibition, films are proposed to be prepared depicting the evils of drinking and during abuses. An outlay of Rs. 3.00 lakhs is provided for the Seventh Plan, 1985-90.

9.12.3.22 Literature on prohibition for educating people through posters, booklets, leaflets, etc., will be prepared for which an outlay of Rs. 2.05 lakhs is provided for the Seventh Plan 1985-90.

9.12.3.23 Survey work about benefits accrued to the labourers Mill workers and other tribals due to prohibition would be carried out. An outlay of Rs. 1.20 lakhs is provided for the Seventh Plan, 1985-90 for this purpose. Intensive prohibition propagandas will be carried out in the backward labour class areas of industrial cities like Ahmedabad, Vadodara, Surat and Jamnagar, with the help of exhibition Van and other equipment. An outlay of Rs. 1.00 lakh is provided for the Seventh Plan, 1985-90 for this purpose.

9.12.3.24 An amount of Rs. 0.45 lakh has been provided for the Seventh Plan, 1985-90 for the construction of quarters at Amreli for which provision has been made under the programme of "Housing" sub sector.

9.12.3.25 An outlay of Rs. 60.00 lakhs has been provided for the various activities pertaining to prohibition during the Seventh Plan, 1985-90.

STATEMENT

Schemewise outlays for the Seventh Plan 1985-90

(Rs. in lakhs)

No. and Name of the scheme		Seventh Plan 1985-90
1	2	Outlay 3
I. Direction and Administration		
1	SCW—1 Strengthening of Administrative machinery at State level and District level.	14.00
2	SCW—2 Training, Research and Seminar in the field of Social welfare	8.00
3	SCW—3 Monitoring Unit for Development Programme.	8.00
Total—I		30.00
II. Child Welfare		
4	SCW—4 Services for Children in need of care and protection.	15.00
5	SCW—5 Holiday Home for children.	3.00
6	SCW—6 Setting up of mental Hygiene Clinic for problematic children and O. P. D. services.	8.00
7	SCW—7 Fostercare Services through Juvenile Courts and Sponsorship programme.	4.00
Total—(II)		30.00
III. Women Welfare		
8	SCW—8 Setting up of Day care Centre and creches for working mothers.	2.00
9	SCW—9 Setting up of Socio-economic units,	2.00
10	SCW—10 Study of socio-economic problems of women engaged in socio-economic activities.	0.50
11	SCW—11 Grant to voluntary organisations for Mahila Mandal Project.	5.00
12	SCW—12 Development Programmes by Women's Economic Development Corporation.	100.00
13	SCW—13 Social Input in area development programme.	10.00
14	SCW—14 Grant of financial assistance to destitute widows for rehabilitation.	28.00

1	2	3
15	SCW-15 Training Centre for women in distress	2.50
Total—(III)		150.00
IV. Education and Welfare of Physically Handicapped		
16	SCW-16 Establishment of Institutions for Physically handi- capped children.	20.00
17	SCW-17 Scholarship for Physically handicapped students.	50.00
18	SCW-18 Prosthetic aids/appliances and other relief to Physically handicapped persons encouraging marriages among them.	10.00
19	SCW-19 Expansion and improvement of facilities in the existing institutions and schools for Physically handi- capped	20.00
20	SCW-20 Grant-in-aid to the institutions and schools for Physically handicapped.	100.00
Total—(IV)		200.00
V. Correctional Services		
21	SCW-21 Establishment of Institutions under Children Act and expansion of Institutions	40.00
22	SCW-22 Establishment and expansion of services under S. I. T. Act.	10.00
23	SCW-23 Rehabilitation and correctional Programme for Beggars and delinquent	20.00
24	SCW-24 Expansion of Probation Services	10.00
Total—(V)		80.00
VI. Welfare of Poor and destitutes		
25	SCW-25 After-care and rehabilitation programme for prisoners released from correctional and non-correctional institution	20.00
Total—(VI)		20.00
VII. Grant to Voluntary Organisations		
26	SCW-26 Grants to Voluntary Organisations for expansion of existing services and for starting new services	60.00
Total—(VII)		60.00

1

2

3

VIII. Other Schemes of Social Defence :

27	SCW-27	Providing for buildings for new and existing institutions	98.00
		Total—(VIII)	<u>98.00</u>

IX. Prohibition

28	SCW-28	Prohibition	60.00
		Total—(IX)	<u>60.00</u>
		GRAND TOTAL—I to IX	<u>728.00</u>

9.13 NUTRITION

9.13.1 Introduction

9.13.1.1. It is well known that malnutrition affects a large part of the population in the State; practically all those who are below the poverty line suffer from malnutrition. Nutrition surveys estimates indicate that the calorie and protein deficiency among the children of the weaker sections below 6 years and pregnant women and nursing mothers is about 300 to 600 calories and 10 to 20 gms respectively.

9.13.2 Objectives and Strategy

9.13.2.1. The aims and objectives of nutrition programme are :

- to improve the health status of children in the age group 0 to 6 years and women in the reproductive age;
- to lay the foundation of proper psychological, physical and social development of the beneficiaries;
- to reduce the incidence of mortality and morbidity of children and mothers; and
- to enhance the capability of the mother to look after the normal health and nutritional needs of the child through proper nutrition and health education.

9.13.2.2. The overall strategy for delivering nutrition services consists of providing food of acceptable quality in accordance with the physical needs as well as low in cost, to every identified beneficiary in the target groups. The package of services also include medical checkup twice in a year, immunisation service, supplementary nutrition, referral services, distribution of iron and folic acid tablets, vitamin A solution and nutrition and health education.

9.13.3 Review of Progress

9.13.3.1. Towards reducing the incidence of malnutrition, the State Government has been implementing the following programmes as a part of the Minimum Needs Programme and the revised 20 Point Programme. The nutrition programme was first introduced in the Fourth Plan.

Special Nutrition Programme

9.13.3.2. Under this programme, supplementary nutrition is provided to children in the age group 0 to 6 years and expectant and nursing mothers belonging to the weaker sections of the society. The supplementary nutrition provided consists of 300 calories and 10-12 gms. of protein to children and about 600 calories with 20-25 gms of protein to pregnant and nursing mothers. The supplementary nutrition is given between 240-300 days with food materials supplied by CARE and World Food Programme. The programme is under operation in tribal, rural areas and urban slums and is implemented by the local bodies.

9.13.3.3. As a part of nutrition service, supplementary nutrition to children below 6 years and nursing and expectant mothers from low income families is also delivered under the Integrated Child Development Service programme. Preferential treatment is given under the programme to children below 3 years of age and those children suffering from 3rd degree malnutrition. The latter group is given extra supplementary nutrition based on the physical need as recommended by the doctor. The cost per beneficiary was 25 paise per day and 60 paise per day for children suffering

from 3rd degree malnutrition. Under SNP and Nutrition component programme under I.C.D.S, benefit was given in 1978-80 to 7.70 lakh women and children and corresponding figure by the end of 1984-85 is about 6.55 lakhs.

9.13.3.4. The cost of Special Nutrition Programme and the supplementary nutrition programme under the ICDS is likely to be of the order of about Rs. 1100 lakhs at the end of the Sixth Five Year Plan.

Mid-day Meals Programme :

9.13.3.5. The other Nutrition programme taken up for mitigating malnutrition among the vulnerable groups is the mid-day meals programme. The beneficiaries in this case are primary school children in the age group 6 to 11. Apart from improving the nutrition, the mid-day meals programme also aims at increasing the enrolment in primary schools. 300 calories and 10 to 12 gms of protein are provided to each child under the programme out of materials provided by the CARE organisation. The programme operated by primary schools provided nutrition for 200 days in a year. The State Government has subsequently with effect from 19th November 1984 extended this scheme under Non-Plan programme, progressively to all the children in primary schools, covering in all 50 lakh children. The school ration intended under the new scheme is 430 calories and 16 grams of protein. per child. This programme has now been treated as "plan programme" in the Seventh Plan with an outlay of Rs. 550 crores. The details thereof have been given separately under the sub-sector "Mid-Day Meal Programme".

9.13.4. Strategy and perspective of development for Seventh Plan.

9.13.4.1. Evaluation studies show that nutrition programmes appeared to have improved health status of the beneficiaries in the target group. However, malnutrition continues to be the single largest cause of child mortality in the State. A monthly bulletin (1980) of the National Nutrition Research Institute estimates that severe malnutrition condition prevails among about 10% of the children in the State. In the circumstances, nutrition services integrated with provision of employment, health care, safe drinking water and hygiene will have to be provided to needy children and mothers.

9.13.5 Programme for the Seventh Five Year Plan :

Integrated Development Services

9.13.5.1. There are 63 ICDS Blocks at the end of the Sixth Five Year Plan. In the Seventh Plan about 18 I.C.D.S Blocks are planned per year. At this rate by the end of Seventh Five Year Plan the State will be having 156 I.C.D.S Blocks; out of this 15 I.C.D.S. Blocks will be in urban areas of the state. It is proposed to provide nutrition services in all these blocks of the State through the I.C.D.S Blocks; in the Seventh Five Year Plan. It is estimated that about 13.80 lakh women and children will be benefitted through this programme at the end of the Seventh Five Year Plan.

State Institute of Nutrition and Child Development

9.13.5.2 It is also proposed to establish a State Institute of Nutrition and Child Development. The Institute will have the following functions:—

- Organise training and orientation courses for different categories of functionaries of Government Departments in the field of nutrition and child welfare;
- Organise seminars/conferences/workshops on relevant issues in the field of nutrition and child development;

- Conduct research studies in the field of nutrition and child health, study the problems encountered during the implementation of various nutrition and child health programmes and to provide means to solve them. Evaluate various nutrition and child health programmes sponsored by the Government;
- Establish close functional links and liaison with concerned government departments in the State and with academic and professional research and training organisations in the State;
- Monitor the progress of various nutrition and child health programmes, provide consultancy services in respect of functional problems in the matters of research, training and seminar; and
- Build up a library, documentation and information service in the field of nutrition and child welfare in the State and provide feed back for planning and policy making bodies.

9.13.5.3 An outlay of Rs. 4550 lakhs has been provided for the nutrition programme for the Seventh Plan, 1985-90.

STATEMENT

Schemewise outlay for Seventh Five Year Plan, 1985-90

(Rs. in lakhs)

Sr.No.	No. and Name of the Scheme	Outlay
1	2	3
1.	NTR-1 Nutrition Integrated Child Development Service	4550.00

9.14 MID-DAY MEALS PROGRAMME

9.14.1. Introduction

9.14.1.1. As part of the directive principles of State policy, the Constitution of India envisages provision of free and compulsory education to all children in the age group 6 to 14 years. Several steps have been taken in this direction during the last 35 years and considerable headway has been made in enrolment of children in schools covering the length and breadth of the State. The importance of education at the school level is increasingly recognised by all sections of the people including rural areas. However, poverty induced absenteeism in schools leading to a heavy rate of drop-outs has been a major cause of concern. In order to motivate the parents and sustain their interest in children's education, it is necessary to create conditions and extend certain facilities which can overcome the handicap of poverty.

9.14.1.2. In the context of alleviating poverty and thereby improving the standard of attendance in schools and consequently raising the level of literacy, it has been found from experience so far that providing nutritious meal to the primary school children can play a very vital role. The State Government have, therefore, drawn up A "Mid-day-Meals Programme". This programme was introduced originally in 68 talukas with effect from 19th November, 1984, and then extended to cover the entire State by 20th December, 1984. Initially, this programme was taken up under non-plan in the year 1984-85.

9.14.1.3. Though many schemes with the target group approach are being implemented in the State for poverty alleviation, much more is required to be done to make a serious dent on the poverty situation. Similarly, in spite of various steps taken to promote education, the Census of 1981 indicates that the percentage of literacy in the State is 43.70 percent. In terms of the physical quality of life index also, Gujarat has a long way to go not only to reach an acceptable level in this regard, but even to catch up with certain other States in the country. The raising of nutritional standards, especially of the young who constitute the human resource potential of the country is very crucial to improve the quality of life, which can be measured in terms of literacy, nutritional level and life expectancy. In this context, a scheme for providing nutritious meal to the school going children would appear as the need of the hour in view of its manifold beneficial impact.

9.14.2 Objectives

9.14.2.1. The Government of Gujarat, for some time past, has been considering the introduction of a Mid-day Meal Programme in the primary schools of the State on a massive scale. The State has some experience of running such programme on a limited scale. However, in the context of what is stated above, the scheme will have the following objectives :—

—Providing Mid-day Meals to the children in primary schools will constitute a complimentary step to the poverty alleviation efforts of the State :

—Such a scheme will significantly raise the nutritional standards of the children in the growing age group.

—Mid-day Meal scheme can attract more students to schools especially from the poorer sections, besides improving the general attendance and preventing drop-outs;

—The scheme will generate some employment in each village;

—The scheme will constitute a step towards social and national integration.

9.14.3. Status in the earlier plans

9.14.3.1. In Gujarat, the Mid-day Meal Programme covered the children in the age group of 6-11 years under sub-sector "Nutrition". Since the period of Fourth Five Year Plan, this scheme had been under implementation in primary schools in 53 talukas, of ten Districts *vi.*, Ahmedabad, Banaskantha, Vadodara, Bharuch, Dangs, Kheda, Valsad, Panchmahals, Surat and Sabarkantha. The programme was implemented in 5083 schools in the above mentioned talukas of the State.

9.14.3.2. Under this programme, an international agency provided food commodities *i. e.*, Soya fortified bulger wheat, peanut oil and salad oil at the rate of 80 gms. and 7 gms respectively per day per beneficiary. This ration provided 300 calories and 10 to 12 gms of protein to each school going child. The provision of this scheme increased the attendance in the primary schools and also raised the nutritional status of the children attending the school. Since the period of Fourth Five Year Plan, on an average, this programme benefited more than 3.00 lakh beneficiaries. During the period of Sixth Five Year Plan, the State Government also implemented the scheme in a limited way on the "self-reliance basis", covering about 27,000 children in the peak period. The 27,000 children covered were from tribal and backward talukas *viz.*, Dediapada, Nandod, Valia, Khedbrahma, Bardoli and Amreli.

9.14.3.3. At the end of were the Sixth Five Year Plan, till October, 1984, more than 3.00 lakh school children benefitted under the above programme.

9.14.4. Mid-Day Meals Programme, 1985-90 :

9.14.4.1. With effect from the 19th November, 1984, the scheme was extended progressively to all school children studying in Government, Panchayat and Municipal primary schools in the State, covering in all 50 lakh children. The scaled ration is intended to provide 430 calories and 16 grams of protein.

9.14.4.2. The nutritious meals being provided to the children include cereals, pulses and vegetables. The meals are cooked fresh and served hot in the premises of primary schools. These hot meals are provided to the children on all working days. The scheme is being implemented at the school level through full-time organizers appointed by the District Collectors in each district under the supervision of Commissioner for Mid-day Meals Programme at State level. Advisory Committees of parents and teachers have been set up at different schools to have a watch over the implementation of the programme.

9.14.4.3. Supply of cereals, oil and pulses to the schools is arranged through the network of fair price shops in the State.

9.14.4.4. As mentioned earlier, there is a high drop-out rate among children in primary schools. Only a small number of those who join Class I manage to reach up to Class V or upto Class VII. An important reason for the high rate of dropout is the poverty of the parents. It is in this context that provision of wholesome nutritious meals has come as a boon to underfed and ill-nourished children of poor parents, and at the same time provide an incentive to poor parents to send their children to schools and to allow them to continue their studies.

9.14.4.5. Attention is also being paid to the development of sources of drinking water within or near the schools. A programme has been launched to construct kitchen-cum-store-rooms in every centre. Simultaneously, a detailed health check of the beneficiaries has been organized to ensure that nutritional deficiencies are corrected and to provide Bench mark for periodical evaluation in future. The District

Planning Boards, voluntary agencies and industrial houses have enthusiastically supported the scheme. A fund known as Gujarat Children's Fund has been set up to supplement the efforts by stimulating voluntary donations. As many as 80,000 persons in rural areas have found employment as mid-day meal organizers, cooks and helpers under the scheme, the majority of them being widows and destitutes in the villages.

9.14.5. Cost of the Programme

9.14.5.1. The cost per child per day under the scheme is roughly estimated to be rupee one. As the Mid-day Meal is to be provided to the children on-working days which are computed to be 220 days in a year, the cost of the Mid-day Meal Programme for 50 lakh children for 220 days in a year is likely to be of the order of Rs. 110 crores per year. Accordingly, a provision of Rs. 550 crores has been made for this programme for the Seventh Five Year Plan, 1985-90.

STATEMENT

Schemewise Outlay for the Seventh Five Year Plan 1985-90

(Rs. in lakhs)

Sr. No.	No. and Name of the Schemes	Outlay
1	2	3
1.	MDM-1 Mid-day Meals Programme	55,000

9.15 SOCIAL INPUTS IN AREA DEVELOPMENT

9.15.1 Introduction

9.15.1.1 The project of Social Inputs in Area-Development Programme was initiated in the State during the year 1980-81. The State Government, as a part of the major developmental task is providing basic social services in health care, nutrition, preprimary and primary education etc. to the people. Under the Minimum Needs Programme increasing access to these basic services is being provided to the vulnerable sections of the population. Social Inputs in Area Development programme is intended to further supplement the State's effort in extension of social services to children and mothers. UNICEF, which is involved in extending, strengthening and delivering basic services to children and mothers and communities is supporting the activities undertaken under the programme which include:

- Health care : primary health care for mothers, infants and children, health education and disease control;
- Clean Water for drinking;
- Nutrition education and provision of nutritious food;
- Education : Pre-primary and primary
- Training for health workers, school teachers, social workers, and
- Welfare services : Balwadies, daycare centres, youth and women groups and selfhelp projects to improve family and community life.

9.15.2 Objective

9.15.2.1 The general objectives of the programme are—

- To build the capacity of the community and of local institutions to participate planning, implementation and evaluation of projects meant for their benefits;
- To improve the access of the poor, especially women and children to existing social and economic services in limited well-defined geographical areas;
- To promote the development of a comprehensive range of mutually supportive services which provide for a convergence of benefits of specific disadvantaged population within these geographical areas;
- To enhance the capabilities of women to look after the needs of their children through improving their skills; both social and economic;
- To improve the quality of life of children and women with special attention to survival health and nutrition, literacy, education, self reliance and community participation; and
- To promote the capacity of officials and agencies at the State and district level to plan for and implement social inputs in conjunction with economic development programme.

9.15.3 Review of Progress

9.15.3.1 The programme has been taken up in 18 blocks of nine districts of the State namely; Vadodara, Surendranagar, Junagadh, Surat, Sabarkantha, Bharuch,

Panchmahals, Kachchh and Valsad. The project proposals for these blocks were formulated by nine State based institutions engaged in economic and social research and familiar with the programme areas and their problems. The project proposals were thereafter approved by the Ministry of Social Welfare, Government of India.

9.15.3.2 During the period of the Sixth Five Year Plan as against the provision of Rs. 500 lakhs, an expenditure of Rs. 203 lakhs is likely to be incurred. The UNICEF support during the period amounting to Rs. 21.34 lakhs was provided in the form of equipment and financial assistance. The major efforts during the period were in the field of health care and nutrition. The programme has made satisfactory progress. However the projects/activities taken up were extremely limited because of certain teething troubles at the initial stages of launching the programme such as filling up of posts in the project organisations, operationalisation of approved projects, preparation of guidelines on implementation, laying down of procedures for flow of funds, utilization of funds, reporting of progress periodically, etc. The tempo of activities is likely to pick up in the coming years.

9.15.4 Programme for the Seventh Five Year Plan :

9.15.4.1 During the Seventh Five Year Plan the on-going activities in the 18 blocks will be continued for the benefit of women and children, for which an outlay of Rs. 303 lakhs is provided.

9.15.4.2 The activities proposed to be taken up under the programme during the Seventh Five Year Plan are :

—Sanitary-latrines (Bawla Type)

—Smokeless Chulas

—Water Stands

—Ventilators

—Bathrooms

—Soak-pits

—Sanitary blocks in Schools

—Balwadi Programme-establishment of and Construction of Balwadis etc.

—Income generating activities.

—Health programme viz. Establishment of health infrastructure, organisation of diagnostic treatment camps, strengthening of sub-centre services, chlorination of wells and rendering help to institutions engaged in health care.

9.15.4.3. The physical targets envisaged for the Seventh Plan, 1985-90 are as under:—

Item	Unit	Targets proposed for Seventh Plan
1	2	3
Sanitary latrines (Bawala type)	No.	600
Smokeless chulas	„	30,000

1	2	3
Water stands	„	30,000
Ventilators	„	30,000
Bathrooms	„	1200
Soak pits	„	2,40,000
Establishment and construction of Balwadis	„	320

STATEMENT

Schemewise outlays for the Seventh Plan 1985-90

(Rs. in lakhs)

Sr. No. and Name of the Scheme No.	Outlay provided for 1985-90
1	2
1. SIP-I Social Inputs	303.00
Total	<u>303.00</u>

9.16 ECONOMIC ADVICE AND STATISTICS

9.16.1 Introduction

9.16.1.1 With the development in different sectors of economy and the expansion of Government activities, the problems of planning and co-ordination of economic activities are becoming more and more complex. Correspondingly the demand on statistical system to provide empirical data for planning and policy making has considerably increased. With the increasing awareness of an integrated approach to planned development and taking into account the complexity of the process of development and decentralised planning at regional, district and block level, the availability of detailed information in time in respect of various programmes undertaken by the Government is a pre-requisite of development planning. Thus an integrated system of comprehensive, accurate and timely statistics is needed at every stage in the planning process, namely, formulation, implementation, monitoring and evaluation. For an integrated system, statistical information on various socio-economic aspects whether obtained as a by-product of administration or through specially designed statistical enquiry need to be properly co-ordinated and linked to one another in terms of coverage, concept and definitions, classification and frequency of collection.

9.16.1.2 In view of the approach of multi-level and decentralised planning process, there has been a greater need for statistical information at the district level to enable formulation of plan programmes and schemes in a more realistic way. Information on basic amenities available in the villages will be very useful for district and lower level planning. In view of the importance of the data, a computerised system of updating the data is being developed. It would be necessary to update the information every year so that the same may be used for formulation and implementation of plan schemes at district and taluka level. To make the planning process more realistic, efforts will have also to be made to collect more detailed information on various facilities which should include not only the physical aspects but also the qualitative aspects. Similarly for raising the standard of levels of living of the people, particularly of weaker sections of the society, a large number of family oriented programmes are being undertaken by the Government. The familywise data available as a result of the implementation of these programmes will need to be cross-classified to generate useful results to enable Government to formulate and execute the programmes in a more efficient and fruitful manner.

9.16.2 Review of Progress

9.16.2.1. Since the commencement of planning in 1951, continuous efforts have been made to improve the coverage, timeliness and quality of statistical data pertaining to different sectors of the State economy. Significant measures have been taken for building up the statistical system at different levels particularly in setting up of statistical machinery at district and lower levels and streamlining procedures for collection and compilation of statistics relating to different sectors. One of the important measures for development of modern data processing methods was taken in 1972 in the State with the installation of a second generation Computer ICL--1300 model in the State Bureau. The following paragraphs give briefly the important activities done in the field of statistical development in the State.

Socio-Economic Review of the State

9.16.2.2 A detailed socio-economic review of the Gujarat State is prepared every year. This publication is brought out as a budget publication.

Economic Analysis of Statistical Data

Further with a view to obtaining better understanding of the Socio-economic aspects of the State and to meet the data requirement for the planning and policy decisions by Government, a scheme of undertaking economic analysis of the vast amount of data available from various censuses and surveys was implemented in the Sixth Plan. Under the scheme, analytical notes on different aspects such as Rural Electrification, Industrial finance, Trends in food grain production, Inter-district variation in Road development and Advances of Scheduled commercial Banks to Priority Sectors have been prepared and published.

Centre for Monitoring Gujarat Economy

9.16.2.3 Moreover, with a view to monitor the progress in important sectors of economy of the State on a continuous basis the Government has decided to set up a centre for monitoring Gujarat economy in the State. To start-with, two publications *viz.*, Quarterly Review of Gujarat Economy and Gujarat Economy in Figures are being brought out regularly in addition to a few adhoc publications. This scheme is proposed to be continued in the Seventh Plan with the full strength of the centre.

State Income

9.16.2.4 The first systematic approach for pre-paring the estimates of State Income (*i.e.* State domestic product) in the country was made by the Bombay Bureau around 1948-49. Subsequently, the estimates of State income were updated and brought out regularly on annual basis. Thereafter, the Gujarat Bureau had conducted a few studies to obtain some basic information on certain items for building up the estimates of State income and for updating the same on regular basis.

9.16.2.5 Looking to the importance of the State income estimates, the Bureau proposed a revised series of State income estimates since 1960-61 as per guidelines provided by Central Statistical Organisation and brought out the publication entitled "Revised Series of State Domestic Product 1960-61 to 1966-67, Gujarat State", which gives the details of the methods of estimation of the State Income at constant and current prices. Later on further revision has also been carried out and at present the estimates of State income at current and at 1970-71 prices are regularly updated annually and published in the budget publication of "Socio--Economic Review, Gujarat State." The State income unit also undertakes the analysis of the State budget and brings out regularly a publication on economical purpose classification. This classification helps to understand the general effects of the Government transactions on the economy of the State.

Tabulation of Annual Survey of Industries Data

9.16.2.6 The Annual Survey of Industries (ASI) undertaken since 1959 provides information on the capital investment, quantity and value of goods manufactured, employment and emoluments etc., in respect of factories registered under the Factory Act, 1948. The State Bureau is tabulating these data and mainly using the same for preparing quick estimates of State Income every year and for studying the industrial progress in the State at macro level.

Economic Census

9.16.2.7 The Central Statistical Organisation had taken a major step during 1977 in collaboration with the State Statistical Bureau to remove data gaps in the unorganised sectors of non-agricultural economy by launching a Central Plan

Scheme on Economic Census and Surveys covering unregistered sectors of manufacturing trade, transport, construction and services etc., The census included non-agricultural establishments employing at least one hired worker on regular basis. During the census the information or basic characteristics of establishments, such as description of activity, number of persons usually working, type of ownership etc., was collected. The follow up sample surveys in unorganised sectors, based on census frame were taken up to collect more detailed information relating to input, output, investment, employment, emoluments etc. The non-factory manufacturing sector and the sectors of trade, transport, hotels and restaurants, storage and warehousing and services are covered in the survey.

National Sample Survey

9.16.2.8 The National Sample Surveys are conducted for collection of data on different socio-economic aspects of the State. Information on various topics such as consumer expenditure, employment and unemployment, household assets and investments, indebtedness, agricultural labourers, livestock products, unregistered manufacturing sector, unregistered trading sector, services sector etc., is covered in National Sample Surveys rounds.

9.16.2.9 The Socio-Economic Surveys conducted through National Sample Surveys have yielded useful results in respect of various aspects of the economy of the State, particularly in preparing the estimates of the State income proportion of population below the povertyline, the extent of employment and un-employment etc., With a view to building up more realistic and usable estimates at the regional level, the State sample size of the National Sample Survey was increased.

Economic Intelligence and Price Unit

9.16.2.10 Studies on different aspects of the economy of the State are undertaken in the Economics Intelligence Unit. Notes and articles extracted from various periodicals dealing with socio-economic aspects are published in the monthly Economic News letter. The data on whole-sale and retail price of agricultural commodities are collected by the price unit. The price data in respect of selected items are supplied to the office of the Economic Adviser, Government of India as also to the concerned departments of the State Government. The index number of wholesale and retail prices for selected commodities for the State are also prepared and published in 'socio-Economic Review' of Gujarat State.

9.16.2.11 Indicators of economic development at district and taluka levels are prepared and updated. The identification of economically backward taluka by the State Government was based on the composite index prepared on the basis of such indicators of development. The Bureau had also compiled and processed the data required by the State committee on Balanced Development (Hathi Committee). During the Sixth plan, Voluminous data was compiled and processed for identification of backward areas required by the High Level Committee set up under the chairmanship of Dr. I. G. Patel.

Tribal Survey.

9.16.2.12 In order to collect detailed information on various socio-economic aspects of the tribal population and tribal areas in the State, a bench mark survey in tribal areas of the State was conducted in the year 1978 at the instance of Ministry of Home Affairs, Government of India. Detailed talukawise tables on the basis of the data collected in the three schedules viz., Village Schedule, hamlet schedule and household schedule were prepared.

Housing Statistics

9.16.2.13 The collection of Housing and Building Statistics scheme envisaged a three-tier system with one statistical cell each in Roads and Building Department, Panchayat, Rural Housing Department, and the Bureau of Economics and Statistics. The information on building activities in public sector and private construction in municipal areas, the prices of building materials and daily wages of workers engaged in construction activities are also collected from selected centres on quarterly basis.

Computer Centre

9.16.2.14 The State Government introduced computerisation in the year 1972 by installing an ICL-1300 computer in the State Bureau on a rental basis. In view of the requirements of a more powerful Computer with better facilities, an ICL-1901-A, third generation computer with 4 tape drive and one disc drive was installed in 1975.

9.16.2.15 The Computer Centre has acquired 14 automatic key punching machines, 9 automatic key verifying machines and 6 key to floppy direct data entry machines. With a view to off loading the voluminous input-output load from the main ICC-1091-A computer, a Micro-78 input output processors of Electronics Corporation of India limited has been installed. The Micro-78 computer system was further strengthened by adding 4 floppy disc drives, one 9-track magnetic type unit and additional 16k Memory. Moreover for the purpose of replacing the old punching and verifying machines, two direct data entry key to floppy machines were also installed during 1981-82. Some of the subjects on which important computer applications have been developed on ICL-1901-A Computer are (1) Sales Tax, (2) Professional Tax, (3) Treasury Accounts, (4) National Sample Survey, (5) Annual Survey of Industries, (6) Economic Census, (7) Crop Estimation Surveys, (8) Agricultural Census, (9) Competitive Examination Results (10) Stability Analysis of Earthen Dams, Masonary Dams, etc. (11) Analysis of Plan Frame, Grid, Frame and Space Frame, (12) Bearn Analysis, (13) Assets, Debt and Investment Survey of Narmada Planning Group. A large number of personnel of the departments of the State Government have been trained on different aspects of computerisation such as systems design, computer programming, soft ware and utility programmes, etc., The existing computer is proposed to be replaced by a more powerful machine with a large memory and a number of interactive terminals and a few Remote Job Entry Terminal Stations.

Training Programme

9.16.2.16 The training courses are being regularly organised for the statistical personnel of the District and Taluka panchayats. The officers of the Bureau are being deputed for training in different Statistical subjects in Central Statistical Organisation and other Institutions. In order to impart training to the statistical personnel of all the categories a Training Division has been created in the Bureau during the Sixth Plan period.

Publications

9.16.2.17 The Bureau brings out the following important publications, some of them regularly :—

- (1) Socio-Economic Review, Gujarat State—Annual
- (2) Budget in Brief, Gujarat State—Annual
- (3) Statistical Outline Gujarat—in English and Gujarati—Annual

- (4) Handbook of Basic Statistics, Gujarat State—Biennial
- (5) Quarterly Bulletin of Economics and Statistics
- (6) Statistics of Municipal Towns and Cities—Every year
- (7) An Economic and Purpose Classification of the Budget—Every year
- (8) Location of Industries, Vol. I & II—Every five year
- (9) Handbook of Basic Transport Statistics—Biennial

Strengthening Administrative Machinery

9.16.2.18 The Bureau of Economics and Statistics is an apex Statistical Organisation at the State level. The activities of the Bureau have increased considerably. On account of implementation of a number of plan and non-plan schemes, for undertaking the work of technical nature relating to statistics during the period 1951-52 to 1979-80. As a measure of expansion of statistical activities in the Statistical units have been created in the various Government departments, offices of the Heads of Departments and Semi-Government Organisations, Several Regional and District level offices have also created statistical cells or have strengthened the statistical units.

9.16.2.19 In order to cope up with the technical work, the Government has constituted the Gujarat Statistical Service for development of statistical activities on uniform and systematic basis. A full fledged Directorate of Evaluation in the State undertakes evaluation studies and the Gujarat Computer Centre works for the computerisation.

Strengthening Statistical Machinery at district level in District Panchayats

9.16.2.20 District Statistical Offices in the District Panchayats collect, compile and tabulate different types of statistics at the district and lower levels and co-ordinate statistical activities in the district. They maintain time series data of regional level statistics. The District Statistical Officers provide technical support to the District Planning Boards by carrying out technical studies for district planning. In order to enable the District Statistical Officers to play their role more efficiently and effectively, all the posts of District Statistical Officers (except Gandhinagar and Dangs) have been upgraded from Class-II to Class-I posts. All the District Statistical Officers are strengthened by providing an additional post of Research Assistant in each district.

Financial Assistance to Research Institutions for Socio-Economic Studies/Surveys

9.16.2.21 With a view to take advantage of expertise and technical competence of various research institutions of the State, the State Government entrusted four research studies namely—(1) Infant Mortality and its causes in Gujarat, (2) Development of social Statistics and Construction of Social Indicators, (3) Rural Health care system in Gujarat, —A perspective for the next decade, (4) Levels and patterns of Living in Gujarat, to various institutions in the State.

Preparation of Planning Atlas of Gujarat

9.16.2.22 The State Government has taken up project to prepare Planning Atlas for Gujarat. The objective of such an atlas is to give a vivid and visual presentation of the distribution pattern and level of development reached in the Sub-region. The work has been taken up in collaboration with Operation Research Group, Vadodara. The work for the first volume has been finalised and is ready for prin-

ing. The work for the preparation of District Planning Atlas for Kheda district is initiated.

9.16.3 Approach and strategy for the Seventh Five Year Plan

9.16.3.1 Following aspects have been taken into account while formulating schemes for the Seventh Five Year Plan :—

- to cover newly emerging areas due to structural changes in economy.
- to strengthen suitably statistical machinery at District and lower levels
- Recognising the need of data at grass root level required for decentralised Planning
- The existing computer centre should be replaced by a more powerful computer with necessary terminals for development of programmes and for graphical display, Micro processors should be introduced at district level
- To co-ordinate the statistical activities of different departments by providing technical guidance and advise for carrying out efficient statistical work.
- Intensive in-service training programme in different fields of Statistics, computer programming and evaluation studies should be taken up to cover maximum number of the personnel. For this purpose, the training machinery should be strengthened

9.16.4. Programme for the Seventh Five Year Plan 1985-90

9.16.4.1. Some of the important schemes proposed to be taken up relate to setting up of a Centre for Monitoring Gujarat Economy, Economic Analysis of Statistical Data Scheme for compilation of Regional Accounts, setting up of a Directorate of Cartography and replacement of present computer by a more advanced computer with terminals and other facilities. For all these schemes, an outlay of Rs. 789 lakhs is provided for the Seventh Five Year Plan.

A broad breakup of the outlay is as under :—

(Rs. in lakhs)	
Category of the Scheme 1	Outlay provided for 1985-90 2
Bureau of Economics and Statistics	200.00
Development of Computer Centre	589.00
Total	789.00

9.16.4.2 Broad details of the schemes are furnished in the following paragraphs :—

Studies for compilation of Regional Accounts

9.16.4.3 The Regional Accounts are meant to provide information on various Macroeconomic aggregates like income, consumption, capital formation, savings,

depreciation of fixed capital etc., for the State Economy, in view of great emphasis being laid on regional planning in recent years by the Government and considering the importance of these macro-economic aggregates in the formulation of Regional plans, it is considered necessary that the work relating to the study for compilation of Regional Accounts is initiated without further delay. The Regional Accounts Committee set up by the Government of India has recommended a System of Regional Accounts (SRA) which will give a comprehensive picture of all the economic activities of the regions. With a view to implement the recommendation of the Committee, the CSO had convened two meetings with the State Directors of the Bureau. It was decided that the work relating to preparation of estimates of fixed capital formation should be taken up on a priority basis so that the work of preparing regional accounts can be initiated.

9.16.4.4 The Committee on identifying data lags and outlining the direction of efforts to fill the gap and strengthening the statistical information system, recommended to prepare the estimates of capital formation and savings for the State as they are considered essential for the study of likely changes in the growth of economy. It is proposed that the work relating to evolving methodology for construction estimates of fixed capital formation may be initiated and the estimates for the same should be built up at least for certain important categories *viz.*, State Government departmental enterprises, State Government non-departmental enterprises, Panchayats and Municipalities by the end of Seventh Plan.

9.16.4.5 An outlay of Rs. 10.00 lakhs is provided for this scheme in the Seventh Five Year Plan.

Centre for Monitoring Gujarat Economy

9.16.4.6 It is proposed to accelerate the activities of a Centre for Monitoring Gujarat Economy with the objectives of monitoring the progress and changes in different sectors of the state economy on a comprehensive and continuous basis with as small a time lag as possible. The Centre will take up the following activities :-

- To Monitor the current development in different sectors of Gujarat Economy by bringing out publication at regular intervals.
- To undertake economic analysis of available data in respect of important fields of economic activity either on regular or adhoc basis and bring out the reports thereon.
- To conduct studies and prepare special reports on various topics of interest to the State Government by supplementing the materials available from different sources.

9.16.4.7 The Centre would also take up the work of monitoring of the current economic development in different sectors of economy of the State and the major projects implemented in the State. To begin with, some work has already been started with the assistance of the existing staff of the Bureau. The Bureau has been publishing the two publications *viz.*, Quarterly Review of Gujarat Economy, every quarter and "Gujarat Economy in figures every year. The work of the Centre will be expanded, during the period of Seventh Plan. It is proposed to strengthen the Centre with suitable posts.

9.16.4.8 Equipment and machines such as photocopier machine, electrical typewriter etc. will be purchased. An outlay of Rs. 14.00 lakhs is provided for this scheme in Seventh Five Year Plan.

Preparing Planning Atlas of Gujarat

9.16.4.9 Preparation of Planning Atlas of Gujarat has been started in the Sixth Five Year Plan with the association of operation Research Group of Vadodara. The first volume containing about 38 maps and descriptive notes is under preparation.

9.16.4.10 The preparation on Volume-II of the Planning Atlas and District Planning Atlas for Kheda district is in progress. Further the work of Planning Atlases for few more districts will also be undertaken during the Seventh Plan. It is proposed to continue the Scheme and strengthen the staff in the Seventh Plan. An outlay of Rs. 10.54 lakhs is provided for this scheme in the Seventh Five Year Plan.

Financial Assistance to Research Institutions

9.16.4.11 The Bureau of Economics and Statistics has been conducting Socio-Economic surveys and studies and collect necessary data for the use in Planning process. There are, however, a number of fields of economic activities, where the expertise and technical competence of research institutions, university departments, management institutions, etc. can be taken of advantage by entrusting them surveys and studies on various aspects of development in different areas. There are a number of institutions like (1) Gujarat Institute of Area Planning, Ahmedabad (2) Centre for Social Studies, Surat, (3) Sardar Patel Institute of Economic and Social Research, Ahmedabad, (4) Sociology Department, Gujarat University, Ahmedabad, (5) Department of Agricultural Economics, M. S. University, Vadodara, (6) Indian Institute of Management, Ahmedabad, (7) School of Planning, Ahmedabad (8) Indian Research Society for Backward Class Welfare, Ahmedabad, (9) Population Research Centre, Vadodara, etc. which are engaged in research on Socio-Economic and other aspects of development in the State. These institutions have got considerable experience in carrying out such studies. In fact, some of these institutions were entrusted with such studies and projects during the period of Fifth and Sixth Plan. These studies and surveys are of great help to the State Government in planning at different levels, particularly when more emphasis is given to regional, district and block level planning in order to tackle the problems of economic backwardness at the grassroot level. It is, therefore, proposed to continue such research studies through such institutions during the Seventh Plan period also for which an outlay of Rs. 7.67 lakhs is provided in the Seventh Five Year Plan, 1985-90.

Strengthening Socio-Economic Analysis Unit

9.16.4.12 To start with the work of socio-economic analysis, a small unit was created in the Bureau in 1979-80. At present, considerable data is available from various sources like Economic Census 1980. National Sample Surveys, Agricultural Census, Livestock census, Population census and Village amenities surveys, etc. in addition to the regular official data being collected in the normal course by the Government Departments.

9.16.4.13 In order to undertake the analysis of statistical data, it is necessary to strengthen the present Economic Analysis Unit by personnel who can undertake the work of analysis and interpretation of statistics. Additional posts are proposed under this scheme to strengthen the present socio-economic analysis unit during the Seventh Five Year Plan. An outlay of Rs. 5.62 lakhs is provided for this scheme in the Seventh Five Year Plan.

Strengthening of the three Field Level Sub-Offices

9.16.4.14. Under the programme of National Sample Survey the information on various socio-economic aspects of the State is collected. It is proposed to take up a sample survey on consumer expenditure by taking additional matching samples in collaboration with N. S. S. After detail examination of the distribution of sample units of the State samples of the previous rounds of N. S. S. by region and by districts according to main classificatory characteristics, it is felt necessary to propose one more additional matching samples so that reliable and comprehensive poverty estimates can be generated at district level.

9.16.4.15. For carrying out field work, additional field staff will be needed as per sample size. To improve the quality of data through intensive supervision and better guidance it is essential that over all supervision and guidance of field staff is carried out by a higher level officer in each sub-office. As the work spreads over a very large area, there is need of a jeep in each sub-office. Also a post of Gujarati Typist alongwith a typewriter is needed. Taking into account the cost of the jeep and the typewriter, an outlay of Rs. 22.00 lakhs is provided for the Seventh Five Year Plan for this scheme.

Strengthening the headquarters staff of NSS

9.16.4.16 Information on various socio-economic aspects is collected regularly in different rounds of NSS. Though the summary results on important characteristics of the subject covered in each round are brought out with a very short period, the work of detailed tabulation and the preparation of the report takes considerable time. Moreover the work will also increase as a result of the proposal for increasing the sample size in the Seventh Plan for obtaining district level poverty estimates. The NSS unit at headquarter is proposed to be strengthened for which an outlay of Rs. 9.00 lakhs is provided for the Seventh Plan.

Conducting Annual Survey of Industries in the Factories not covered by NSSO.

9.16.4.17 As per list of registered factories available in the office of the Chief Inspector of Factories, there are about 12500 units registered in the factory sector in the State. Of these, about 2500 large units are covered by the National Sample Survey Organisation, Government of India, in the Census part. Of the remaining about 10000 smaller units in non-census sector, about 50 percent units are surveyed in one year and the remaining in the next year by NSSO, New Delhi. It is proposed to take up Annual Survey of Industries in the remaining factories of the non-census part every year. For this purpose, it is proposed to create an ASI field unit during the Seventh Plan for which an outlay of Rs. 7.04 lakhs is provided for this scheme in the Seventh Plan.

Strengthening ASI unit in the Bureau

9.16.4.18 Under the statutory provisions of the Collection of Statistics Act, 1953, the National Sample Survey Organisation, Government of India collects data on industrial statistics through the Annual Survey of Industries (ASI) on an annual basis. The results of ASI are published by the Central Statistical Organisation, Government of India, in two stages. In the first stage, the summary results containing important economic aggregates are published on provisional basis with a time lag of about three years. In the second stage, the detailed results by 4-digit industry groups and by states are published only for Census Sector in 10 volumes with a time lag of about 8 to 9 years. Similar detailed results for the non-census sector are however, not brought out by CSO.

9.16.4.19 In view of the above position and with a view to assisting the States in making immediate use of the data collected under ASI before the data could be

published by CSO, the NSSO furnish a copy of each schedule of ASI in respect of Industrial units in the State. The State Schedules compile and the provisional results of census sector and non-census sector in respect of important economic aggregates from the summary block of the ASI schedule. The Bureau compiles the information at three digit level of industry groups for the important economic aggregates such as fixed capital, working capital, employees, workers, salaries to employees, wages to workers, total input, total output depreciation and value added by manufacture. These results are treated as provisional and are used in estimating the State Domestic Product of the State and are published for general use.

9.16.4.20. Because of paucity of personnel, the detailed information contained in other blocks is not processed at present. It is necessary to have detailed information on items such as capital, employment, emoluments, inputs, and output inventory of working capital, outstanding loans, fuel and lubricants consumed etc. for use by the Government for policy decisions on industrial matters. Such detailed information could be obtained if the information contained in other important blocks of the ASI schedule is also regularly processed. As the processing work of the blocks will be very voluminous, it may be desirable to process the data by assigning priority to different items according to the need of the State Government. Initially the processing can be restricted to census sector factories only which contribute nearly 80 percent of the net value added by the factory sector of the State. It is envisaged to take up this scheme in the first year of the Seventh Plan. It is, therefore, proposed to strengthen the ASI unit in the Bureau. An outlay of Rs. 10.16 lakhs is provided for this scheme in the Seventh Five Year Plan.

Creation of a Statistical unit for Coordination of Statistical activities in the State

9.16.4.21. For the development of an efficient statistical system at the State level, Bureau of Economics and Statistics is the NODAL AGENCY for coordination of all statistical activities of various departments. In view of this, the Bureau will have to coordinate the statistical activities of different departments of the State for introducing uniform standards, procedures and concepts, for effecting improvements of data collection work and for maintenance of statistical information in appropriate formats. For this purpose, the Bureau will also have to provide technical guidance in statistical activities undertaken by different departments. The Bureau will organise State, district and lower level conferences, and keep liaison with C. S. O., other Central Government offices and organisations. It is proposed to create a coordination unit. An outlay of Rs. 5.67 lakhs is provided for the Seventh Plan for the purpose.

Strengthening the existing Publication unit

9.16.4.22. The publication "Socio-Economic Review" is a budget publication, covering all the aspects of the State economy. Under the publication "Hand Book of Basic Statistics", the coverage has been almost doubled. The work in the Publication Branch of the Bureau has increased and to cope up with this work, the purchase of equipment is proposed. It is also proposed to strengthen this unit with suitable staff. An outlay of Rs. 8.30 lakhs is provided for this Scheme in Seventh Five Year Plan.

Strengthening the Training Division.

(A) Training to Statistical Staff of the Bureau cadre and District Panchayats.

9.16.4.23. The statistical activities of all the departments are expanding and a very powerful computer to be shortly installed in the Computer Centre. The training division with the skeleton staff at present imparts training to Statistical Assistants and Research Assistants of the Bureau and Panchayats. With the introduction of computerisation in various Government Departments, more and more officers and staff members are being trained in computer application and programming languages. In the Seventh Five Year Plan, it is proposed to conduct more training

classes for different categories of the staff of Bureau's cadre and District Panchayats. To impart training in various aspects of computerisation and statistical subjects of specialisation in the context of large scale programme of computerisation and more sophisticated data processing for economic and technical analysis.

9.16.4.24 The present Training unit organises the training classes by inviting experienced cadre officers of the Bureau and subject specialists from other departments for delivering the lectures on different topics. This arrangement will continue though more emphasis will be given to development of certain faculties in the Bureau itself. Moreover, in order to impart intensive training, it is required to organise case studies, seminars, field visits and to give assignments to the trainees during the course of training. Some more supporting staff and training equipment *e. g.* audiovisual equipment, roneo machine, copier machine, calculators, etc. will also be required to meet the needs of the training. An outlay of Rs. 14.00 lakhs is provided for the Seventh Five Year Plan for this purpose.

(B) Professional Training in Statistics to Bureau's staff and Others

9.16.4.25 In order to develop professional expertise in the directly recruited officers and other officers of the statistical services cadres, it is proposed to organise about 3 months Training courses for them on the lines of IES/ISS officers training courses conducted by the Central Statistical Organisation, New Delhi. This training Programme will include topics such as official statistics, economic and econometrics, planning, computerisation of statistical information, sample surveys and statistical methods. This will cover practical training also. These training courses will be organised by the Training Division of the Bureau.

9.16.4.26 The Indian Statistical Institution, Calcutta conducts the examinations in Statistics, (external) and awards Junior Diplomas in Statistics and Senior Diploma in Statistics to the successful candidates. These examinations are being conducted by the Indian Statistical Institute, Calcutta at various centres *viz.*, Banglore, Bombay, Calcutta, Delhi, Hyderabad, Lucknow and Madras once in a year. It is felt that if these professional examinations are also conducted in some selected centres in Gujarat State, it would provide professional background in statistics to the people of Gujarat and would help the State Government to recruit statistical personnel having good professional background in statistics. The Statistical personnel working in the State Government Departments will also be able to avail of the facilities for appearing in these examinations. The Indian Statistical Institute will be approached for establishing a centre in Gujarat State for conducting these examinations and for conducting professional Statistical courses. An outlay of Rs. 6.00 lakhs is provided for the above schemes in the Seventh Five Year Plan.

Strengthening Administrative machinery of the Bureau of Economics and Statistics

9.16.4.27. The Bureau of Economics and Statistics is a Central Statistical agency at the State level and its activities have increased considerably as a result of the implementation of several plan schemes. Moreover with the initiation of new programmes such as computerisation of data, use of cartographic methods in presentation of data, economic analysis of data, etc; there has been increase in the Statistical staff in the Bureau in the last few years. Apart from the growth of the activities of the Bureau proper, the statistical activities have expanded or started in the various departments of Government and statutory corporations and Boards. In view of this, the demand of statistical personnel belonging to the different statistical cadres has considerably increased. Moreover, with the installation of a powerful large computer in the Bureau and several microcomputer in the districts, there will be a large increase in the staff in the cadres of the Bureau. The increase of various statistical activities and statistical staff in the different cadres will add heavily to the workload of the administrative machinery of the Bureau. In view of the facts

narrated above, it is necessary to strengthen the administrative machinery of the Bureau. An outlay of Rs. 10.00 lakhs is provided in the Seventh Plan for this purpose.

Strengthening of District Statistical Offices in District Panchayats

9.16.4.28. The functions and the activities to be performed by the District Statistical Officer have considerably increased and shall further increase in the Seventh Plan. The D. S. O. will need to do extensive touring in order to make spot supervision of the statistical activities in the district. The District Statistical Offices need suitably to strengthen and the D. S. O. are provided with jeeps to undertake more-frequent touring necessary for efficient and effective supervision. The Sixth conference of the Central and State Statistical Organisations held in New Delhi in January 1984 has recommended that the statistical machinery at the district and lower levels be strengthened. In view of the above, it is proposed to provide jeeps to the District Statistical Officers under the scheme. An outlay of Rs. 40.00 lakhs is provided for the scheme for the Seventh Five Year Plan.

Strengthening the taluka level statistical machinery in Taluka Panchayats

9.16.4.29. The Planning work at taluka level has considerably increased. The Statistical Assistant has to attend to work of Decentralized District Planning, the work relating Minimum Needs Programme, compilation work of Village Amenity Survey, Special Censuses and surveys viz., Economic Census, Agriculture Census, Livestock Census, Population census etc., This will serve the dual purpose of strengthening the taluka level planning machinery and also to cope up with the increased burden of the work. This scheme is proposed to be implemented in phased manner in the Seventh Plan. An outlay of Rs. 20.00 lakhs is provided for this scheme in the Seventh Plan.

Strengthening the Computer Centre at the State Level and Regional Level

9.16.4.30. The present ICL-1901-A computer which was installed in 1975 has outlived its normal machine life in terms of its utilisation. It is, therefore proposed to replace the same by a more powerful machine with a large memory and a number of interactive terminals and a few Remote Job Entry Terminal Stations. On the basis of the recommendations of the Committee set up by the State Government, it has been decided to install a powerful computer at the Gujarat Computer Centre and the Remote Job Entry (RJE) terminals one terminal at Sachivalaya in Gandhinagar, one terminal at Ahmadabad and one terminal at Vadodara. It is further proposed to install four graphic terminals, 12 query programme development terminals and about 20 data entry terminals. The new computer along with RJE Systems and graphic systems is likely to cost Rs. 3.88 crores.

9.16.4.31. The RJE terminal at Ahmedabad will cater to the computing and processing needs of users like Commissionerate of Sales Tax and Professional Tax, Commissionerate of Industries, Directorate of Agriculture and other State Government offices at Ahmedabad. The RJE terminal at Vadodara will cater to the needs of Narmada Project and various Government offices located at Vadodara. The RJE terminal at Sachivalaya in Gandhinagar will be used more or less for data retrieval and query purposes so that important key data required for taking policy level decisions can be retrieved instantly.

9.16.4.32. The scheme will have a fruitful impact on development maintenance and updating of various statistical systems in different sectors like agriculture, industries, sales tax, animal husbandary, etc. Further, the computing and data processing needs of various State Government Organisations will be met to a large

extent more or less locally. This will help in making quicker policy level decisions based on proper data bases and relevant information systems. An outlay of Rs. 388.00 lakhs is provided for this scheme in the Seventh Five Year Plan.

Establishment of EDP Cells in Districts.

9.16.4.33 Sizable data at district level calls for introduction of Computerisation for their processing at district level. The information available on different returns weekly, monthly, quarterly and annually could also be computerised.

9.16.4.34 The report of the Committee appointed by the State Government is expected to be received soon. On the basis of recommendation of the Committee order for the purchase of micro-computers with appropriate configuration will be placed. The micro-computer equipment for each district is likely to cost around Rs. 10.00 to 12.00 lakhs.

Installation of Micro Computer

9.16.4.35 Keeping in view the above applications to be taken up at district level, it is proposed to instal a micro computer in each district.

Some of the Micro computers will be installed in co-ordination with the Civil Supplies Department.

Training in Computer

9.16.4.36 Training is an integral part of any computerisation process. Training programmes will be organised for the following :—

- (1) For user offices in general for appreciating the capabilities of the computer
- (2) For system analysis and programmers
- (3) For data entry operators
- (4) For scrutiny and coding of data
- (5) For appreciating the provisions made for the capabilities and the sequence of runs to be taken etc, at a particular computerised system by the user office & the computer installation.

9.16.4.37 The training will also be organised at the district computer centre. Further, deputation of persons to the recognised training institutes will also be considered.

9.16.4.38 For establishment of EDP cells in fifteen districts, an outlay of Rs. 435.00 lakhs is required. However, an outlay of Rs. 173.15 lakhs is provided in the Seventh Five Year Plan for this programme. It is proposed to establish EDP cells in 7 districts during the Seventh Five Year Plan.

Scheme of Establishment of a Central E.D.P. Cell in the Computer Centre

9.16.4.39. Under the scheme of Establishment of E.D.P. Cell, it is proposed to establish E.D.P. Cells in each district equipped with a Micro Computer. Various computer applications and computer based information systems will have to be developed for implementation on the district micro computers. For effective

communications with the computer user organisation in the computer centre at Gandhinagar and better understanding of their information requirements and imparting training to the users and the district level EDP cells in using the computerised information systems, this central EDP cell will be established.

9.16.4.40. It will be necessary to strengthen the Central EDP cell by establishing an EDP Cell each for a group of 4-5 districts, say a **Regional EDP Cell**. This Regional Cell will be working on similar lines to that of the Central EDP cell but for the corresponding 4-5 districts and will also work as link between the Central EDP cell and the district EDP Cells. An outlay of **Rs. 27.85 lakhs** is provided for this scheme in the Seventh Plan.

STATEMENT

Schemewise outlays for the Seventh Five Year Plan, 1985-90.

(Rs. in lakhs).

Sr. No.	No. and Name of the Scheme.	Outlay
1	2	3
(A) Bureau of Economics and statistics		
1	STT-1 Studies for Compilation of Regional Accounts	10.00
2	STT-2 Setting up of a Centre for monitoring Gujarat Economy	14.00
3	STT-3 Preparing Planning Atlas of Gujarat	10.54
4	STT-4 Financial Assistance to Research Institutions	7.67
5	STT-5 Strengthening Socio-Economic Analysis division	5.62
6	STT-6 Strengthening field level sub-offices	22.00
7	STT-7 Strengthening of N.S.S. data unit	9.00
8	STT-8 Conducting Annual Survey of Industries in the factories not covered by N.S.S.O	7.04
9	STT-9 Strengthening A.S.I. unit	10.16
10	STT-10 Creation of Statistical unit	5.67
11	STT-11 Strengthening publication Branch	8.30
12	STT-12 Strengthening training division	20.00
13	STT-13 Strengthening the Administrative machinery	10.00
14	STT-14 Strengthening District level Statistical machinery	40.00
15	STT-15 Strengthening Taluka level statistical machinery	20.00
Sub--Total (A)		200.00
(B) Computer Centre		
16	STT-16 Strengthening the Computer Centre	388.00
17	STT-17 Establishment of E.D.P. Cells	173.15
18	STT-18 Establishment of a Central E.D.P. Cell for District Micro Computers/Regional E.D.P. Cells.	27.85
Sub Total (B)		589.00
Grand Total (A) + (B)		789.00

9.17 WEIGHTS AND MEASURES

9.17.1 Introduction

9.17.1.1. The Bombay Weights and Measures (Enforcement) Act, 1958 has been in force in the State to protect consumers' interests. The Central Government has since passed another Act *i. e.* The Standards of Weights and Measures Act, 1976. This Act has very wide coverage. Over and above routine type of activities of verification and stamping of weights and measures etc., used by the trading community, it covers calibration of temperature measuring instruments, clinical thermometer, taxi and autorikshaw meter, electricity meter, water meter, etc. Provision for regulating the packaged commodities has also been made in this Act. The State Controller of Weights and Measures has been appointed as the Controller of Legal Metrology under this Act.

9.17.1.2 The State Government has taken several steps to protect consumers' interests. The Government has separated the Weights and Measures activities from the Industries Commissionerate and looking to the nature of the work, this organisation has been placed under the direct control of the Food and Civil Supplies Department.

9.17.2 Progress during the Sixth Five Year Plan

9.17.2.1. An outlay of Rs. 60.00 lakhs had been provided for the Sixth Five Year Plan to carry out various activities *viz.* annual verification, opening of District Offices, and implementation of packaged Commodities Rules etc.

9.17.2.2 Initially only in Six districts an office headed by an Assistant Controller of Weights and Measures was set up and there were 3 regional offices headed by Deputy Controller. During the Sixth Five Year Plan, the department opened District offices in other districts in a phased manner. By the end of Sixth Plan, offices have been opened in all the districts except Gandhinagar and Dangs districts.

9.17.2.3 The Bombay Weights and Measures Act, 1958 provides for bi-annual verification and stamping of weighing and measuring instruments used by the traders and annual verification for industrial establishments and bullion weights. The malpractices often employed by traders come to the notice of the department after a lapse of time. Not only this, but the weights and measures do not show exact position. The Government having realised this has agreed in principle to introduce annual verification in a phased programme. In the first phase, annual verification has been introduced in the cities having population of one lakh and above. At the end of the Sixth Plan, the cities having population of 75,000 and above are expected to be covered by annual verification. Packaged Commodities Rules provide for indication of manufacturers' name, manufacturing date, retail price and net weight on sealed packages. These Rules regulate inter-State transactions of packaged commodities to establish fair trade practices. Government of India is anxious about implementation of these Rules and hence the Controller of Weights and Measures in the State has been declared as Controller of Legal Metrology for the purpose of implementation of these Rules.

9.17.3 Programme for the Seventh Five Year Plan, 1985-90

9.17.3.1 The main objectives and strategy are as under :

(i) To protect consumers' interest by implementing the Bombay Weights and Measures (Enforcement) Act, 1958 and the Standards of Weights and Measures Act, 1976, which are in force in the State.

(ii) To establish fair trade practices by implementing the Packaged Commodities Rules (PCR)

(iii) To strengthen the enforcement unit for protecting the interests of consumers.

9.17.3.2 It is proposed to carry out various activities such as (1) annual verification, (2) Implementation of the Packaged Commodities Rules(PCR),(3) stamping and verification of autorikshaw and taxi meters, electricity meters and water meters, (4) inter-State verification of Weights and Measures, (5) verification and stamping of clinical thermometers(6)implementation of the Numeration Act, (7) strengthening the flying squad units, (8) providing vehicles for District Offices and (9) construction of office buildings at Ahmedabad and Surat and Construction of processing laboratory at Ahmedabad. An outlay of Rs. 182.00 lakhs is provided for the Seventh Five Year Plan,1985-90 for carrying out these activities.

STATEMENT

Schemewise Outlays for the Seventh Five Year Plan (1985—90)

(Rs. in lakhs)

Sr. No.	No. and Name of the Scheme	Outlay provided
1	2	3
1	WAM—1 Regulation of Weights and Measures	182.00
	Total	182.00

9.18 TRAINING OF DEVELOPMENT PERSONNEL

9.18.1. Development projects and programmes in various sectors are implemented by a number of agencies namely Government departments, public undertakings, Panchayats, other local bodies and voluntary agencies. Realising the role of training in developing necessary skills, the State has been taking advantage of the training facilities available with the Government of India and the National Institute in the field of training and research etc. The State also runs certain training centres/courses for imparting training to suit the needs of programme in specific sectors like Community Development, public works, Medical and Public Health, etc. Even though there is a functional division of work and responsibilities amongst various administrative and implementing agencies concerned with different sectoral projects and programmes, there has to be a close inter relationship in the total scheme of plan formulation and implementation. The quality of formulation and implementation of plan - programmes ultimately depends on the quality of personnel deployed on this task. It is, therefore, necessary to pay more special attention to the training needs of development personnel. This is sought to be achieved by the development of Sardar Patel Institute of Public Administration which has been set up by the Government in 1962.

9.18.2. The Sardar Patel Institute of Public Administration imparts pre-service and in-service training to various categories of officers and staff. It is now proposed to improve the coverage and quality of training imparted through the institute and to develop it as the premier institute in the State for imparting training to improve the administrative, technical and managerial capabilities of the personnel engaged in the economic development, planning and implementation tasks. For this purpose it is proposed to provide suitable and adequate accommodation to the Institute, better facilities, for the trainees and to strengthen and improve the library and research facilities and to provide modern equipments and teaching aids etc., on an adequate scale.

9.18.3. The new building of the Institute is under construction at present. The construction of Administrative Block and Hostel Blocks is now in full swing. The staff quarters are yet to be constructed in the campus. In view of the new strategy of decentralised planning which also calls for much more intimate popular participation in the development process and the massive programmes for accelerating the development of rural and backward areas and the upliftment of the weaker sections and the poor, it will also be necessary to impart the appropriate motivation and healthy attitudinal changes in the minds of the trainees. This aspect will be given due importance in the programme for faculty development.

Approach

9.18.4. The officers and employees in public administration are imparted training in such a manner that their knowledge and skill increase and they will perform their duties with interest in disposing of cases and taking quick decisions. Quick and correct disposal of public complaints, awareness, accuracy and interest of the officials at various stages, fruitful and healthy co-ordination among the departments of the State, implementation of the action plan according to Government policy in real sense, improvement in the standards of work, co-operative attitude towards the public, development of resources, knowledge and skill consciousness and responsibility in financial matter need to be stressed, in the training programmes.

Training Programme

9.18.5. Keeping in view, human resources and expansion in needs of the administration various Executive Development Programmes such as Record Management, Personnel Administration, Performance Budgeting, Project Formulation,

Public Relations, Financial Management, Management by objectives etc., are included in the training programme. About 72 various types of training courses under - Executive Development Programme and Fundamental Programme for probationers like I. A. S. Gazetted Officers, Section Officers, Mamlatdars, etc., are conducted by the Institute.

Regional Training Centres

9.18.6. The Sardar Patel Institute of Public Administration alongwith three regional centres at Ahmedabad, Vadodara and Rajkot started functioning in 1962. Due to increased need for training programme, six more centres are functioning at present. The regional centres are imparting training to the clerical staff of the various departments of the Government. Annually, 6000 employees are being trained. At present SPIPA is located in a small building having only 3 class rooms. There will be 16 class rooms in the new building which is at completion stage. So as to meet the future challenges, it has been decided to divide organisational set up into six parts viz. (1) Orientation/Foundational Courses (2) Rural Development, (3) Training in Public Sectors, (4) Research and Consulancy Wing, (5) Examination Wing and (6) Publication and Documentation in the SPIPA's new complex.

9.18.7. SPIPA has been functioning as an apex Institute in Rural Development Training. Moreover, the survey work to know the training needs of employees of public undertakings is also going on. On completion of the survey work. SPIPA will consider organising the training courses according to their needs.

9.18.8. For the period from 1978-79 to 1984-85 3923 participants have been trained in Executive Development Programme, 2723 have been trained in Foundational programme and 20562 clerical personnel in pre-service training.

Library.

9.18.9. The library of the Institute consists of books on various subjects like Management, Economics, Political Science, Sociology, etc., Books and Government publications for departmental use are also purchased and subscriptions for magazines are paid every year. The Institute has 16 films and audio-visual equipments. 'NIRNAY' magazine is also published by the Institute.

SEVENTH FIVE YEAR PLAN, 1985-90.

Campus Building

9.18.10. The Institute building alongwith hostel building is under construction. The estimated cost was Rs. 92 lakhs, but due to rise in prices and considering other facilities, it is likely to be Rs. 140 lakhs. Moreover, the other allied expenditure on hostel is also estimated at Rs. 17 to 20 lakhs. Uptill now the expenditure has come to Rs. 80 lakhs. The construction is done by Roads & Buildings Department. The rest of Rs. 65 lakhs is provided in the Seventh Plan, 1985-90.

Training Equipment and Training Aids

9.18.11. Taking into consideration the training techniques and modernisation of the training facilities, organisation of the SPIPA is proposed to be well equipped by purchasing closed circuit T.V., T. V. with Vedeo Tape, Film projector, Slide Projector, Photophone and Radio Cassettes at an estimated cost of Rs. 2 lakhs, Thus an outlay of Rs. 2 lakhs for the Seventh Plan, 1985-90 is provided for the the above purpose.

Library

9.18.12. For strengthening and modernising library of the Institute. Rs. 6 lakhs are provided for purchase of cupboards furniture etc., and library books during the Seventh Plan period.

Construction of Staff Quarters at SPIPA

9.18.13. The construction works of new campus building is likely to be completed in 1985-86. It is now proposed to provide residential facilities to the staff. It is proposed to construct categorywise staff quarters. An outlays of Rs. 104 lakhs is provided for the purpose during the Seventh Five Year Plan 1985-90.

Management Training Centres

9.18.14. It is proposed to establish 3 permanent training divisions *viz.* Management, Studies, Rural and Urban Development Studies, and Financial Management at SPIPA so that expert services are available on permanent basis. Each of the above wing will consist of three experts faculty members. An outlay of Rs. 18 lakhs is provided for the purpose for the period of Seventh Five Year Plan, 1985-90.

Purchase of Vehicles

9.18.15. The present transport fleet consisting of one Matador and a staff car is inadequate to cope up with the demand on transport. It is, therefore, proposed to purchase a bus, a matador van and an Ambassador car. An outlay of Rs. 3.75 lakhs is provided for the purpose for the Seventh Plan, 1985-90.

Language Laboratory

9.18.16. It is very necessary to establish a language laboratory for imparting training in languages. An outlay of Rs. 2 lakhs has been provided for the period of Seventh Five Year Plan

Research in Administration

9.18.17. It is proposed to undertake atleast 5 Research projects during the Seventh Plan period at an estimated cost of Rs. 2.50 lakhs.

Purchase of films

9.18.18. The present stock of 16 films on different subjects is not adequate. It is therefore proposed to purchase more films at an estimated cost of Rs. 0.50 lakh during the Seventh Plan period.

Class Rooms, Office and Library equipment and Furniture

9.18.19. It is proposed to purchase equipment and furniture at an estimated cost of Rs. 9.25 lakhs for new building of the Institute.

9.18.20. Thus, in all a provision of Rs. 213 lakhs for the period of Seventh Five Year Plan 1985-90. has been provided for this sub-sector.

STATEMENT

Schemewise outlays for the Seventh Five Year Plan, 1985-90.

(Rs. in lakhs)

Sr. No.	No. and Name of the Scheme	Outlay for 1985-90
1	2	3
(1)	TDP—1 Building Campus and Staff quarters.	169.00
(2)	TDP—2 Development of Sardar Patel Institute of Public Administration	44.00
GRAND TOTAL		213.00

9.19 CIVIL SUPPLIES AND CONSUMERS' PROTECTION

9.19.1 Introduction

9.19.1.1. During the Sixth Plan, positive steps towards strengthening the public distribution system were taken by establishing the Gujarat State Civil Supplies Corpn. Ltd., bringing the Controller of Weights and Measures under the Food and Civil Supplies Department, providing broad based scheme for assistance to consumer protection agencies, providing telex facilities at State Headquarters and all districts for faster flow of information in both directions, and providing flying squads under the enforcement branch of the Directorate of Civil Supplies. Parliament passed the Act viz., Prevention of Blackmarketing and Maintenance of Supply of Essential Commodities Act, 1980. This enabled the department to sharpen its cutting edge in the field of enforcement.

9.19.1.2 With the creation of GSCSC, the entire responsibility of servicing the Public Distribution System and providing necessary finance was transferred to it and the drawal from budgetary resources of the State was reduced by Rs. 25 crores annually. With the creation of GSCSC, the entire financing of the PDS has been provided from institutional finance.

Consumers' Protection Agencies

9.19.1.3 The assistance to consumer protection agencies is by way of matching grant. Consumers' protection agencies which generate their own funds, the assistance is on a matching basis. Gradually, programmes will be increasingly funded through non-budgetary sources.

9.19.2 Review of Progress

9.19.2.1. The number of Fair Price Shops has gone up from 9693 in 1980 to 10477 by the end of Sixth Plan. The storage capacity available with the Gujarat State Civil Supplies Corporation which was 1.92 lakh tonnes at the commencement of the Sixth Plan, has gone up to 2.12 lakh tonnes at the end of the Sixth Plan.

9.19.2.2. With the creation of the Gujarat State Civil Supplies Corporation and addition of edible oil as a regular item of distribution through the Fair Price Shops the basic infrastructure for the Public Distribution System has come to a stable stage, facilitating the smooth and regular functioning of the FPS. The question of viability of FPS was examined by the informal Committee of FPS in 1980. With the implementation of recommendations of this Committee, the transport rebate was revised upward and was rationalised on a distance scale. Exemption from professional tax to the FPS keepers with annual turnover of less than Rs. 1.00 lakh was given. Additional items for distribution through these outlets has ensured a level of viability which sustains such FPSs through thick and thin. With the provision of mobile shops to cover tribal, hilly and inaccessible areas, a more effective coverage of consumers from the weaker sections has been ensured. With the steady functioning of FPS after the increase in the commission and transport rebate as well as the addition of imported edible oil as a regular item of supply through the FPS, benefits of distribution of essential articles at subsidised rates to the weaker sections has started flowing on an assured and sustained basis.

Consumers' Protection

9.19.2.3 Consumers' protection agencies have been promoted in each district of the State during the Sixth Plan period. These agencies are gearing up to organise their work so as to achieve the objective

of helping consumers from the weaker sections. The consumer protection agencies will need assistance under specific programmes to ensure and enhance their effectiveness. This will further enhance the demand for funds by way of matching grants in the field of consumer protection.

9.19.3. Programme for the Seventh Five Year Plan, 1985--90

Share Capital to G. S. C. S. C.

9.19.3.1 The Gujarat State Civil Supplies Corporation was set up in October, 1980 to strengthen the public distribution system, as a corporate body can take speedy decisions and effectively implement programmes.

9.19.3.2 The Corporation started its activities with share capital of Rs. 40 lakhs which has been stepped up over the period to the level of Rs. 3.22 crores. The number of fair price shops has reached the figure of 10477 by 1985. An outlay of Rs. 300 lakhs is provided for share capital during the period of the Seventh Plan, 1985-90 to meet the needs of expansion and diversification of activities of the Corporation.

Consumer Protection

9.19.3.3 At present the scheme for financial assistance to consumer protection agencies by way of matching grants is being implemented. To make the task of consumer protection agencies more effective assistance is proposed to be substantially enhanced during the Seventh Plan. This would be done through establishment of testing laboratories, counters for verification of weights and measures, dissemination of information on PDS price and qualities, rates, taxes, fares, etc., through mass media such as documentaries, cinema, slides, T. V. programmes, radio advertisement, press advertisements, etc.

Setting up Cell at State level

9.19.3.4 In order to guide, supervise and promote the consumers, protection programme and to make it self-generating, it is envisaged to set up a cell at the state level. It will streamline the efforts in promoting consumers protection activities. It will formulate, supervise and co-ordinate the activities of institutions under taking consumer protection work.

Consumers' Ombudsman

9.19.3.5 For providing a forum for the redress of grievances of consumers' vis-a-vis the producers and traders, a cell is proposed at the State level with its units at the district and taluka levels. The role of the proposed cell will be to function in the overall interest of the consumers in the State. An outlay of Rs. 20 lakhs is provided for the Seventh Plan, 1985--90 for undertaking the activities under consumer affairs.

Market Intelligence and Computerisation of Data

9.19.3.6. The effectiveness of the market intelligence system predominantly depends upon prompt collection of information. Mere collection of information would not be sufficient, unless the collected information is swiftly processed and evaluated. It is, therefore, proposed to introduce a system of computerising statistical data collected for the purpose of market intelligence during the period of the Seventh Plan, 1985--90.

Studies and Training in Commodities

9.19.3.7 The availability of data at present is not sufficient to provide effective and scientific analysis to enable the Government to either intervene timely and counter the effects of market forces working against both the consumers and the producers. It is proposed to undertake scientific studies in respect of specific important commodities through recognised institutions, generate adequate data base and techniques for forecasting trends in the marketing of essential agricultural products, to take effective measures to intervene and to rectify the imbalance created by the open market forces. It is, therefore, proposed to impart training to the staff engaged in activities relating to market intelligence and enforcement.

9.19.3.8. An outlay of Rs. 46 lakhs is provided for strengthening market intelligence activities during the Seventh Plan, 1985-90.

STATEMENT

Schemewise outlays for the Seventh Five Year Plan, 1985-90

(Rs. in lakhs)

Sr. No.	No. and Name of the Scheme	Outlay for 1985-90
1	2	3
1.	PDS-1 Share Capital to Gujarat State Civil Supplies Corp. Ltd.	300.00
2.	PDS-2 Consumers' Protection	20.00
3.	PDS-3 Strengthening of the Marketing Intelligence Cell	46.00
		<u>366.00</u>

9.20. MODERNISATION OF WIRELESS EQUIPMENT

9.20.1.1. Gujarat is a flood and cyclone prone area. The State has faced large scale disaster on account of heavy flood in river Machchhu and cyclone in the coastal areas of Junagadh, Jamnagar, Amreli and Bhavnagar in recent past. In such a natural calamity, the normal communication system fails, particularly during floods/cyclones or due to heavy rains when they are needed most. In addition, remote places like irrigation dams, forests etc., are also required to be connected towards monitoring and controlling floods and natural calamities. The flood warning, rescue and relief operations are also required to be streamlined. It is, therefore, essential to setup an efficient wireless network using modern equipment. This network will also help in maintaining law and order more effectively in the State.

9.20.1.2. The need for faster communication is the prime requirement of the Government for its day-to-day administration. This requirement becomes a must when other communication media fails during heavy rains, floods, cyclones or other unforeseen disasters such as earth-quake, etc.

9.20.1.3. The State wireless-system is the only communication system which remains working during such disasters. Moreover, the State Wireless-system has to cater to the needs of all the departments of the Government over and above the law and order communication.

9.20.1.4. The present system can be classified as below :—

1. High Freequency Telegraphic stations at every District Head Quarter connecting the State Head Quarter.
2. Teleprinter system connecting all the District Head Quarter with State Head Quarter.
3. Very High Freequency single channel system connecting District Head Quarter to the respective police stations.

9.20.1.5. The High Freequency Telegraphic communication is a very slow communication system. It is the experience of the Government that this system has already reached saturation and cannot take up more load during any emergency. The number of messages this system can handle comes to about 30 per day per channel.

9.20.1.6. The present Teleprinter communication is no doubt a faster communication system for the present. The only draw back in this system is that would have to depend on Posts and Telegraphs Department for its maintenance. This system fails during floods, cyclones etc., due to faults developing in underground cables and over-head lines as the system works on lines.

9.20.1.7. Both the above systems are the only means of communication from State Head Quarter to all the District Head Quarters, During disasters, both the systems are not able to meet the communication requirement of the State Govt.

9.20.2. Programme envisaged for the Seventh Five Year Plan, 1985-90

9.20.2.1. The State Government, therefore, wants a reliable and faster communication. After careful study and consideration, it has been decided to have automatic repeaters, the advantages of which would be that more channels for communication would be available between State Head quarter and District Head quarter.

9.20.2.2. The present very High Freequency system in the State is also to be improved further by :—

- (1) Providing Mobile patrolling set to all the Police Station vehicles in the State.

(2) Providing Mobile patrolling sets to all the officers of the rank of Police Inspectors and above.

(3) Providing Very High Frequency stations to all the Police Chowkies and Police Out-posts in the State.

(4) Providing hand held sets to every district for mobile party operating on foot or boat during emergencies.

9.20.2.3. The above arrangement will give about 800 more VHF mobiles to the State and will improve the complete communication system. The same mobiles could be used for any eventuality in the State. Since the wireless sets are provided upto police out-posts, it would be possible to communicate with more remote villages during disasters.

9.20.2.4. The State communication system will be used for all the departments during emergencies. However, the departments of the State Government which would mostly benefit from this programme are, (1) Irrigation (2) Revenue (3) Forests and (4) Police, etc.

9.20.2.5. The Irrigation Department would have all its the irrigation dams in the State connected to the respective District Head Quarters. Various focal officers will be in communication with the dams under them. The focal officers can always remain in contact with State Head Quarter for seeking orders etc., through Rajkot, Vadodara, etc.

9.20.2.6. The Revenue Department will have two mobile VHF sets and Hand held sets one each in every district. The Collector and District Magistrate will be free to use the sets as per his discretion. The sets will be in communication with District Head Quarter from any place in the District.

9.20.2.7. The Forests Department is not having any communication network at present. The communication system in the State will be so planned that any illicit felling of trees or thefts of jungle materials could be chased by wireless mobiles help could be called for through wireless and by sending advance information to forest check posts so that vehicles carrying the goods could be intercepted. The installation of wireless stations on hill tops in the forests would be useful for fire fighting also, as the fire would be immediately located by the station and the information would be conveyed by hill top station to the concerned Divisional Forests Officer for assistance. It is felt that with the implementation of the scheme the State would have much better communication system.

9.20.2.8. An outlay of Rs. 849.00 lakhs has been provided for the Seventh Five Year Plan, 1985-90, for undertaking all the above referred activities under the Modernisation of Equipment. (Wireless network)

STATEMENT

Schemewise outlay for the Seventh Five Year Plan 1985—90

(Rs. in lakhs)

Sr. No.	No. and name of the scheme	Outlay for 1985—90
1	2	3
1.	MEP—1—Modernisation of Wireless Equipment	849.00
	Total	849.00

9.21 Planning Machinery

Organisation of the Planning Division

9.21.1 The Planning Division in the General Administration Department headed by the Chief Secretary has been placed in charge of the Secretary (Planning). This division provides general direction and looks after co-ordination of plan programmes and reviews the overall progress of plan implementation.

9.21.2. This Division is organised as follows.

State Planning Board Unit.

Perspective Planning Unit.

Programming Unit.

Monitoring and Evaluation Unit

Multilevel Planning Unit.

20 Point Economic Programme Unit

Backward Areas Development Unit.

The State Planning Board

9.21.3. At the apex level the State Planning Board in its present form was constituted in August, 1973 under the Chairmanship of the Chief Minister. The State Planning Board was last reconstituted in September, 1980 with the Chief Minister as Chairman, Minister of Finance and Planning as Vice Chairman and includes other members with considerable knowledge and distinguished record of service in different fields. The Board assists and advises the State Government in all matters relating to planning such as formulation, implementation of plans and their monitoring. The functions, in brief, are to assess human and material resources of the State and advise the Government on formulation of Plans and their balanced and effective implementation to indicate the scale of priorities at the State level; to formulate an integrated framework for intersectoral interdependence; to consider the Five Year Plan and Annual Plan of the State and undertake the formulation of guidelines for District plans; to devise effective, procedures for monitoring of Plan schemes and review the performance of the programme; to undertake comprehensive evaluation of Plan schemes; periodic revision of perspective plan; to indicate a future pattern of development of the State; to recommend steps to eliminate inefficiency in project planning and shortfalls and slippages in execution and to overcome the impediments in the process of implementation of Plan programmes and to study the scope and direction of additional resource mobilisation and to cut wasteful expenditure.

Perspective Planning unit

9.21.4. This Unit formulates perspective plan of the State and also prepares guidelines for the formulation of the perspective plan of districts and prepares alternative growth models of development. This unit also initiates systematic studies for the assessment of natural and human resources to fill in the data gaps as may be found in the course of long term studies, to suggest research studies to be undertaken through Governmental and other consultancy organisations.

Programming Unit

9.21.5. This Unit formulates general policy and strategy for formulation of the development Plan of the State, provides general direction to the departments

for the formulation of Five Year Plans and Annual Plans, determines the size and priorities of the Five Year Plan and Annual Plans and makes the required adjustments, as and when necessary.

Monitoring and Evaluation Unit

9.21.6. This unit monitors Plan expenditure and physical progress on concurrent basis through periodical reports, compiles plan statistics and prepares programme reviews and publishes details of progress achieved through the Five Year Plan and Annual Plans. This Unit also initiates evaluation studies of important selected projects/programmes and initiates follow up of evaluation reports.

Multi level Planning Unit

9.21.7. A new phase in the field of decentralised district planning has been launched in the State since 14th November, 1980 with the reconstitution of District Planning Boards.

9.21.8. At the State level, an officer of the rank of Deputy Secretary in the Planning Division has been placed in charge of a Monitoring Unit for decentralised district planning. Quarterly Progress Reports in the prescribed proforma are being received from the districts at the end of the year an annual review of the progress is being drawn up. In addition to this, regional meetings are held under the chairmanship of Minister (Finance and Planning) in which both officials and non-officials of the concerned districts are associated. Issues regarding both policy formulation as well as difficulties in implementation are being discussed.

9.21.9. At the district level, a District Planning Officer who is a Class-I Officer has been appointed with supporting staff and he is expected to not only function as the Member-Secretary of the District Planning Board but also to act as a nodal officer in the district for the maintenance of different registers and formats and also concurrent monitoring of the implementation of the various programmes in which he is expected to undertake personal site visits. The District Planning Board which meets atleast once in a quarter under the chairmanship of the Minister is also regularly expected to monitor both physical and financial progress.

9.21.10. Very recently, the District Planning Board have constituted Taluka level committees which formulate proposals for the Taluka level review the physical progress under different schemes financed by the District Planning Boards.

The Twenty Point Programme

9.21.11. The Twenty Point Programme is reviewed by a High Power Committee constituted at the State Level under the Chairmanship of the Chief Minister.

9.21.12. In addition, an informal Cabinet sub committee under the Chairmanship of the Chief Minister has also been formed to monitor and resolve critical issues relating to the programme. The Chief Secretary also reviews in details the progress of programmes regularly.

9.21.13. Monthly Progress Report to the Planning Commission is sent by the 20-Point Programme Unit of the Planning Division. To ensure smooth co-ordination and monitoring of programme, a Deputy Secretary in the concerned Secretariat Department and a senior officer in the executive heads of departments have been designated as Liaison officer who work as contact officers in the collection, compilation and submission of information.

9.21.14. At the district level, District Level Committees have been constituted and the Minister assigned as the Chairman of District Planning Board acts as a Chairman of this District Level Committee. This Committee, consists of different district level officers, all MPS and MLAS, Chairman Social Justice Committee and representatives of scheduled castes/scheduled tribes/minority communities, farmers and agricultural labourers, college and school students and one woman social worker. This Committee is expected to meet at least once in a quarter.

9.21.15. Taluka level committees have been set up under the chairmanship of the concerned Prant Officer where non-officials, different taluka officials and elected representatives have been associated. Taluka level targets are being worked out to enable the Taluka Level Committees to monitor the actual progress at the village level.

The Backward Area Development Unit

9.21.16. There are certain geographically homogeneous areas, spread over more than one taluka or district, having common constraints to development. In order to develop such backward areas, special programmes are taken up. A small unit, consisting of a Deputy Secretary, an Under Secretary and a Section Officer is set up to look after the implementation and monitoring aspects of this programme.

Implementation of the State Level and District Level Schemes

9.21.17. Plan programmes at State Level are implemented by the executive heads of department under the direct control of the various administrative departments charged with respective sectors of development. At the district level schemes and divided into two parts viz. those retained by the Government and those transferred to the District Panchayats. The schemes retained by the Government are implemented by the district executive heads of departments under the direction and supervision of the Government Department directly, while the transferred schemes are implemented by the District Panchayats.

Decentralised District Planning

9.21.18. The Sixth Five Year Plan, 1980-85 emphasised the need for augmenting the capabilities of development administration both at the district level as well as at the block level.

9.21.19. It is equally necessary that district plans are formulated having due regard to the State Plan objectives, strategies and priorities and within the limits of financial resources in sight. In addition effective linkages need to be established between the State level and the district level planning.

9.21.20. Having regard to these considerations, the State Government reconstituted in September, 1981, the District Planning Board in each district so as to make it broad based to include the representative from both rural and urban areas. With a view to enabling the Board to acquire higher status and receive prompt and adequate response from other officers at different levels a Minister of the State Government has been made the Chairman of the Board. The Collector is the Vice Chairman and the District Panchayat President is the Co-vice-Chairman of the Board. All the MPs and all the MLAs from the districts are members. Besides, two or three Taluka Panchayat Presidents, the Mayor and the Municipal Commissioner of the Corporation if there is one in the district, the President of one Municipality and the President of one Nagar Panchayat are also members of the Board. The Chairman of the District Central Co-operative Bank and the representatives of the lead bank are also members.

9.21.21. In order to make available to the District Planning Board, the expert advice of economists, one member from a research institution of University has been included on each District Planning Board. Besides, one member from amongst the non official members of the State Planning Board has been appointed as member. In order to ensure that problems of weaker sections are properly and adequately brought before the District Planning Board the Chairman of the Social Justice Committee functioning in the District Panchayat has also been appointed as a member. of the Board. One active female member from District Panchayat has also been co-opted as a member on the District Planning Board.

9.21.22. On the official side, besides the Collector as Vice-Chairman, the District Development Officer and the Project Officer of the Tribal Area Sub-Plan, if there is a Tribal project in the District, are included as members. The Member Secretary is the District Planning Officer who is a Class I Officer appointed for each district. The District Statistical Officer is the additional Member Secretary.

9.21.23. There is also a small Executive Planning Committee ensuring effective working of the District Planning Board under the Chairmanship of the District Collector. The District Panchayat President is the Co-Vice-Chairman, 3 MLAs of the district (one each in Dangs and Gandhinagar) have also been appointed as members of Executive Committee. These MLAs are appointed on the Executive Committee by rotation system every year.

9.21.24. The functions of the District Planning Board are wide enough to cover various aspects of Plan formulation, monitoring and evaluation, besides facilitating popular participation in the development process. Special monitoring and evaluation of the implementation of minimum needs programmes also constitutes a vital function of the District Planning Board. A new element of discretionary and incentive outlay for district level has been introduced with effect from the year, 1980-81. The schemes are to be formulated by the District Planning Board with complete freedom of choice in keeping with the local needs and balanced development of the district, mainly in the fields of Minimum Needs Programme and Agriculture, Minor Irrigation and Cottage Industries.

9.21.25. In addition, the District Planning Board is expected to identify the difficulties of implementation of schemes and take-up the matter at the appropriate level to remove them. The Board is also expected to identify the missing links in infrastructure for implementation of the family oriented programme, formulate appropriate schemes thereof and to review their progress in the district every year so as to ensure that the benefits accrue to the rural poor.

9.21.26. Till the end of the Fifth Plan, there was no separate Planning Unit at the District Level. During the year 1978-79, a District Planning Unit in each district under the administrative control of the Collector has been created. Each such unit has a small technical staff consisting of one Research Assistant, one Statistical Assistant and a Clerk and a typist and is headed by a District Planning Officer. One post of Research Officer, one Deputy Mamlatdar and a Deputy Accountant have been added. Subsequently, one post of Research Assistant and one post of statistical Assistant have also been added to the unit for ensuring proper implementation and evaluation of Minimum Needs Programme. In the context of the responsibilities now cast, the organisation and the structure of the District Planning Unit will be reviewed from time to time and suitable strengthening and improvement will be effected as and when necessary.

9.21.27. During the Sixth Five Year Plan, there has been a centrally sponsored scheme in regard to the Planning Machinery, the cost of which is shared between State and Centre in the ratio of 50 : 50 for District level Planning Machinery approved by the Government of India. Guidelines are also finalised by the Govern-

ment of India according to which experts are to be inducted to District Planning Board. This includes, and Economist, Area Planner, Engineer, Specialist in programming, Agronomist and Cartographer/Geographer. To start with, a few expert are being considered for a group of District Planning Boards.

9.21.28. Under Multi-level planning (Decentralised District Planning) it would be necessary to induct qualified professional expertises as mentioned above as the planning function would be come considerable more complex in the Seventh Plan. With many more diversified demands being placed upon it. Without induction of such professional expertise, it would be difficult for the Multi Level Planning unit to response to the demands being placed upon it by various District Planning Boards.

9.21.29. A project planning cell has been established in Kachchh District in coordination with the Centre for Environment Planning and Technology (CEPT), Ahmedabad as link institute for preparing project report for Perspective Planning and Annual Plans for Kachchh district on the basis of resources available.

9.21.30. In the Seventh Plan it is expected that more than Rs. 244 crores would be spent on Decentralised District Planning. The Planning Machinery at the State level would need considerable strengthening if it has to effectively meet with the strains and challenges which are likely to arise in the Seventh Plan period.

9.21.31. It is proposed to considerably strengthen the existing Planning Machinery by inducting highly trained and professionally qualified personnel in new skills and disciplines like Regional Planning, Costing, Spatial Planning, Cartography, Computer Application, Sociology and Econometrics.

Development of Special Backward Areas

9.21.32. Development of backward areas has received special attention of the State Government. Despite economically backward talukas programme introduced from the year 1968-69 and backward talukas programme introduced on the basis of the recommendations of a Committee headed by late Shri Jaysukhlal Hathi from the year 1972-73, there were certain areas in the State having special problems. For rapid development of such areas a special scheme was introduced in the year 1983-84 and an amount of Rs. 100.00 lakhs including matching contribution from the District Planning Boards from their incentive grants was sanctioned to undertake schemes drawn up in consultation with the elected representatives of the people of these areas, local leaders and concerned officials.

9.21.33. During the year 1984-85 three more areas *viz.* areas of Uchchhal, Nizar and Songadh Talukas of Surat District affected by the Ukai Irrigation project, Kharapat areas of Amreli and Bhavnagar Districts and Vagdod area of Mehsana District have been added raising the total number of such areas to ten. An amount of Rs. 226 lakhs including an amount of Rs. 56 lakhs from the incentive grant under decentralised planning was sanctioned during 1984-85.

9.21.34. A Committee of exerppts was constituted under the Chairmanship of Dr. I. G. Patel, former Governor of Reserve Bank of India and an eminent economist, to identify Backward Talukas and to find long term solution for removal of backwardness of such areas. It has submitted its report to Government recently and an empowered Committee has been formed to consider the recommendations.

9.21.35. During the Seventh Five Year Plan 1985-90 a provision of Rs. 34.25 Crores is proposed for the development of Special Backward Areas and talukas of the State.

Minimum Needs Programme

9.21.36. Since the Fifth Plan, emphasis has been laid on Minimum Needs Programme and outlays for these programmes have been earmarked. The Government attaches great importance to qualitative implementation and vigorous monitoring of the benefits conferred on adivasis, harijans and other socially, educationally and economically backward classes. It is, therefore, necessary to strengthen the monitoring arrangements at all levels for this programme and it is essential to have suitable monitoring machinery at the level of each of the concerned Head of Departments and at the district level. Within the Monitoring Unit of G. A. D. (Planning), a MNP Unit was first created. In the next step a separate cell to monitor MNP was created under the District Planning Officer. Subsequently, additional posts of Research Assistant/Statistical Assistant were sanctioned for all districts to exclusively watch the progress under MNP and for effective monitoring of the implementation of MNP. The spot verifications and physical checks to be carried out by District Planning officer have been emphasised before sending the progress reports. Each district is expected to send the quarterly progress Reports of expenditure incurred and physical achievement schemewise/programmewise in a standard format prescribed by Government. The responsibility for monitoring of MNP at district level has been entrusted to the District Planning Boards.

9.21.37. In order to streamline the monitoring of the MNP, Government has taken several innovative steps in the Sixth Five Year Plan. The first step was in July, 1983 when a "Status paper on Monitoring of Minimum Needs programme" was published. As the next step to improve the monitoring system and reporting system the need was felt of having District wise break-ups of financial outlays and physical targets. So, Districtwise break-up of financial outlays and physical targets for the years 1983-84 and 1984-85 were published by the Government. Disaggregation of financial outlays and physical targets at the district level is important in the monitoring system, as it makes it possible for field offices to effectively monitor the programme. It also ensures that no duplication of efforts takes place in providing basic amenities at the field level through District Planning Boards. Consequently, such booklets have been found to be very useful at both the State Level as well as at the District Level.

9.21.38. The question of having a firm and reliable data base at the taluka and village level had been engaging the attention of Government for quite some time. To understand the problems and to identify the remedies, the State Government constituted a working group to go into the problem. The working group advocated that District Planning Boards should prepare Talukawise profiles of existing amenities under MNP as well as other basic amenities and social services at the village level which have an overall bearing on the quality of life of people. The report has been published and its recommendations are already implemented by various District Planning Boards. In order to make these talukawise profiles easily understandable, adoption of the scalogram techniques as well as qualitative grading of villages as per amenities available have been applied.

Introduction of Modern Methods

9.21.39. The monitoring function in the Seventh Plan will undergo a substantial change and it will have to be put on a modern and professional line so as to cope up with demands which are likely to be placed upon it. It would be necessary to introduce modern methods of data collection, storage, processing and use. It is envisaged that the monitoring functions at the State level would be computerized and micro-processors installed down to the taluka level. The monitoring wing would need modernisation and equipment to quickly collect, compile, process and analyse data if dissemination of information is to be made quicker and effective in order to ensure a better sense of public participation in the planning process.

9.12.40 The working group on monitoring and Information systems at State and District levels during Seventh Plan period (1985-90) appointed by the Planning Commission have also in its report emphasised the need for a wide use of computers and data processing facilities. It has also suggested that PC's scheme of providing 2/3 assistance for computerised information system.

9.21.41 It is proposed to modernise the existing facilities at the State level and provide two RJE technical to the State level computer. The facility is also proposed to be extended in a phased manner upto District level through micro processores.

Recent Developments

Compilation of village wise amenities Data

9.21.42. Very recently some important steps have been taken to use modern concepts in management, computer and statistical methods like cartography in various areas of plan monitoring. An attempt has also been made to compile critical district level and village wise amenities data with a view not only to understand the current status of the provisions of basic minimum needs at the village level but with a view to also guide the planning process in future.

Basic State level document on Annual Programmes under the Minimum Needs Programme

9.21.43. Since the Fifth Plan, emphasis has been laid on the Minimum Needs Programme, and outlay for these programmes have been earmarked every year a booklet showing districtwise physical and financial targets under Minimum Needs Programme is being brought out. At the same time the District Planning Boards are also bringing out booklets showing the villagewise and talukawise status of the provision of the basic amenities identified under Minimum Needs Programme. It would thus be possible to consolidate the districtwise booklets into a State level document, which would become a basic document and would show the annual progress made under the Minimum Needs Programme, and the annual booklets of targets under Minimum Needs Programme would become an effective tool in the monitoring of the programme. It is expected that the monitoring arrangements under Minimum Needs Programme would be put on a highly systematized basis in the Seventh Plan Period by strengthening the machinery at all levels and by use of modern methods. A highlight of this system would be that effective monitoring would take place at the taluka and district levels.

Introduction of Computers in the Monitoring process

9.21.44. The state Government has been giving considerable importance to the introduction of computers as a modern management aid in the monitoring process. An over-all computer system with a new bigger computer having very large capacity for the computerization of plan records is in the process of being finalised. Counting of all plan schemes has been completed during 1985-86. This would give, at a glance, a complete financial picture for all the plan schemes under the State plan. It would also reflect what programmes are centrally sponsored as well as give the details about the programmes under the Minimum Needs Programme. It will be useful for other sectors of development.

Use of Computers by the District Planning Boards.

9.21.45. The District Planning Boards would be encouraged to use computers to monitor their plans. The Vadodara District Panchayat has recently developed a District Information System. This is a computerized system. This system is being studied by the Govt. and suitable guidelines along with Vadodara model will be supplied to other districts in due course.

Cartography Unit.

9.21.46. A cartography unit has been established in the office of the Directorate of Bureau of Economics and Statistics, Gandhinagar. Hitherto cartography was being used to bring out Statistical and Planning Atlases in addition to miscellaneous maps. Visual presentation of basic amenities at the district village level as well as in special geographically backward areas improve the visual impact of the problems as well as the programmes. Maps have proved to be a useful medium in portraying the developmental profile, comparison of maps showing the same information over a time period has been found useful in immediately highlighting the progress made through planning. Cartography has proved to be a useful statistical aid in improving public involvement in the planning and in a visually appealing manner.

Setting up Directorates for monitoring and form multy-level planning.

Evaluation Unit.

9.21.47. Under Decentralised District Planning over Rs. 170 crores have been spent during Sixth Plan and with a view to ascertain whether benefits of various schemes for improving ratio-economic conditions of weaker section, have reached to the persons for whom such programme are undertaken it is essential to undertake case study of various works undertaken so far. The Directorate of Evaluation is to be strengthened to take up this task during the Seventh Plan Period.

9.21.48. The Working Group on Management Information system set up by the Planning Commission has amply emphasised the need for Strengthening the monitoring arrangement at various levels. The working group on District Planning set by the Planning Commission under the Chairmanship of Dr. Hanumanth Rao, Member, Planning Commission, has also recommended considerable strengthening of planning machinery at Taluka, District and State level. Keeping all these recommendations and the experience during the Sixth Plan in view, it is proposed to strengthen the planning machinery in the State by :

1. Strengthening of Monitoring and multi-level Planning at the State level.
2. Strengthening of machinery of Director Evaluation level.
3. Strengthening the District Planning machinery by induction of experts and
4. Strengthening the implementing machinery at District and Taluka level.

9.21.49. With the increasing scope and financial commitment of development works there has arisen a need to enlarge the scope of monitoring from more evaluation of financial progress to the physical and qualitative status of the on-going programmes. In this direction studies on unit costs of services in key areas, related to Minimum Needs Programme such as primary education, health services, rural road would enable Government to re-examine priorities of expenditure, rationalise the allocation of plan resources and provide for timely intervention in the operation of developmental programmes.

9.21.50, It has therefore been proposed to create a cell with nucleus staff and personnel drawn from various disciplines like cost accountancy, statistics and relevant areas of development, under the Directorate of Evaluation.

9.21.51 The State Government policy is to give more attention to the improvement of backward areas and rural message by giving more emphasis to eradicate poverty from rural masses and create full employment opportunities by undertaking various special programmes. The evaluation studies are the only tool to know the impact of such programmes. With this end in view, it has been considered necessary to have a special trained cell at State level for undertaking quick appraisal and case studies pertaining to the programme of poverty eradication. The cell will provide continuous feed such to the concerned departments in the cases of various economic problems. The Directorate of Evaluation has also been entrusted the responsibility of imparting training to the planning personnel in planning process on regular basis.

9.21.52 The State Government policy is to decentralise the planning process. A beginning in this direction is made and some nucleus machinery for the purpose is provided for at the District level. Planning is a technical job irrespective of the level at which it is performed. It will require a full complement of expertise ranging from planning technology to subject specialisation. To make District planning effective the necessary compliment of staff should be patiently built up over the years. The planning Commission's guidelines suggest a chief planning officer as head of the District Planning Team. He should be assisted by an able team of experts drawn from various disciplines like economic statistics, agronomy cartography/geography, engineering radiology, and Banking as well as from subject areas like agriculture, animal husbandary, horticulture. The actual size and composition of the team will be left to the District. The flexibility will depend on the socio-economic and ecological characteristics of the districts. The technical staff would be assisted by the medium of supporting staff and office equipment. The staff will also help up the preparation of taluka level plans.

Strengthening of Planning Machinery at District and Taluka level

9.21.53 While strengthening the state level Machinery it would also be necessary to strengthen the District level planning Machinery for which Central Assistance on a 50 per cent sharing basis is available. It is proposed that considerable strengthening would be required not only the District Planning Machinery but a minimum complement of technical and non-technical staff would have to be provided at the Taluka level as well during the course of the Seventh Plan.

Outlay for the Seventh Plan (1985-90)

9.21.54 An outlay of Rs. 304 lakhs is proposed for Seventh Five Year Plan 1985-90 as State's share towards machinery in the Planning Division at Apex, District and Taluka level as follows :

	(Rs. in lakhs)		
	State's share	Central Share.	Total
State Level	19.34	29.66	49.00
District Level } Taluka Level }	284.66	224.66	509.32
Total	304.00	254.32	558.32

STATEMENT

Schemewise outlays for the Seventh Five Year Plan 1985-90

(Rs. in lakhs)

Sr. No.	No. and Name of the Schemes.	Outlay for Seventh Plan 1985-90
1.	2.	3
1.	Strengthening of Cartography Unit	6.67
2.	Strengthening Monitoring Unit	3.67
3.	Strengthening District Evaluation Machinery	9.00
4.	Planning Machinery at District level	60.00
5.	Strengthening of Planning Machinery at District and Taluka Levels	224.66
Total		304.00

9.22 ADMINISTRATIVE MACHINERY FOR TASP

9.22.1. The State Government has evolved a system of functioning within the existing administrative framework which would approximate to the condition of single line administrative control. The tribal area of the State has been demarcated into 9 project areas for each of which separate administrative structure has been sanctioned. Each project team is headed by a Project Administrator of the rank of Additional District Development Officer or Additional Collector except for Banaskantha and Dangs Districts. For the Districts of Banaskantha and Dangs, the responsibility of the project administrator is entrusted to the District Development Officer himself. The project Administrators have a nucleus staff comprising of subject specialists in Agriculture, Animal Husbandry, CO-operation, Forest etc. to look after the working of the Projects and monitoring and evaluation of the schemes, a post of Tribal Development Commissioner at the State level has been created since April, 1982. The Government has also created a separate Tribal Development Department since 1984 headed by Secretary-cum-Tribal Development Commissioner. An expenditure of about Rs. 200 lakhs has been incurred during Sixth Five Year Plan. The above staff of the Project Administrators will be continued during Seventh Five Year Plan for which Rs. 122 lakhs have been provided which will be supplemented by Rs. 360 lakhs from Special Central Assistance for the Tribal Area Sub Plan.

STATEMENT

Schemewise outlays for the Seventh Five Year Plan 1985-90

(Rs. in lakhs)

No. and Name of the Scheme	Outlay Provided
AMT-1	
Administrative machinery for Tribal Area Sub-Plan.	122.00
TOTAL :	122.00

PART-III
STATEMENTS

STATEMENT—I

Majorheadwise Summary of Outlays for Seventh Five Year Plan 1985-90

(Rs. in lakhs)

Sr. No.	Heads of Development	Outlays for Seventh Five Year Plan 1985-90	
		Total 3	Capital 4
1	2		
I Agriculture and Allied Services			
1	Research and Education	3033.00	..
2	Crop Husbandry	7720.00	660.75
3	Soil and Water Conservation	5763.00	563.00
4	Animal Husbandry	1820.00	250.10
5	Dairy Development	182.00	5.00
6	Fisheries	2426.00	1228.00
7	Forests	12964.00	11470.05
8	Investment in Agricultural Financial Institutions	971.00	971.00
9	Marketing, Storage and Warehousing	121.00	51.00
	Total—(I) Agriculture and Allied Services	35000.00	15198.90
II Rural Development			
1	Integrated Rural Development Programme (I R D P)	5284.00	..
2	National Rural Employment Programme (N R E P)	3700.00	..
3	Drought Prone Area Programme (D P A P)	1575.00	..
4	Desert Development Programme (D D P)	256.00	..
5	Strengthening and Supporting Special Programme Organisations	80.00	..
6	Strengthening Training Facilities for Rural Development	10.00	..
7	Project Linkage	35.00	..
8	Development of Women and Children in Rural Areas	40.00	..
9	Regional Rural Banks	11.00	..
10	Integrated Village Environmental Improvement Programme (I V E I P)	44.00	..
11	Community Development and Panchayats	485.00	..
12	Land Reforms	910.00	..
	Total—(II)—Rural Development	12430.00	..
III Co-operation		3640.00	1657.85

1	2	3	4
IV Irrigation and Flood Control			
1 Water Development (Irrigation)			
(a)	Survey, Investigation and Research	1500.00	..
(b)	Multipurpose River Valley Projects	109150.00	109150.00
(c)	Major and Medium Irrigation	21618.00	21618.00
(d)	Flood Control, Drainage, Salinity Ingress etc.	13935.00	12635.00
Total—Water Development (Irrigation)		146203.00	143403.00
2 Minor Irrigation			
		13455.00	1900.00
3 Command Area Development			
		6067.00	..
Total—(IV)—Irrigation and Flood Control		165725.00	145303.00
V Power Development			
1 Power Development (Survey, Investigation and Research)			
		100.00	100.00
2 Multipurpose River Valley Projects (Power station)			
		14650.00	14650.00
3 Power Projects-Generation			
		72835.00	72835.00
4 Transmission and Distribution			
		50000.00	50000.00
5 General			
		525.00	400.00
6 Rural Electrification			
		7240.00	7240.00
7 Non-Conventional Sources of Energy (including Biogas)			
		1300.00	..
Total—(V)—Power Development		146650.00	145225.00
VI Industries and Minerals			
1 Village and Small Industries			
		14361.00	5144.00
2 Large and Medium Industries			
		9557.00	8312.00
3 Mining			
		1867.00	1367.00
Total—(VI)—Industries and Minerals		25785.000	14823.00
VII Transport			
1 Ports, Lighthouses and Shipping			
		3036.00	3036.00
2 Roads and Bridges			
		25785.00	23785.00
3 Road Transport			
		8494.00	8494.00
4 Tourism			
		425.00	138.00
Total—(VII)—Transport		37740.00	35453.00

1	2	3	4
VIII—Scientific Service and Research			
1	Science and Technology	450.00	..
2	Environment and Pollution Control	350.00	149.24
Total—(VIII)—Scientific Service and Research		800.00	149.24
IX—Social and Community Services			
1	General Education	8083.00	356.06
2	Technical Education	1820.00	1085.20
3	Art and Culture	593.00	114.00
4	Medical and Public Health	10314.00	2848.69
5	Sewerage and Water Supply	16866.00	14763.00
6	Housing	16442.00	11528.24
7	Urban Development	9768.00	3400.00
8	Capital Project	3337.00	3337.00
9	Information and Publicity	758.00	50.00
10	Labour and Labour Welfare	4911.00	2563.58
11	Welfare of Scheduled Castes, Scheduled Tribes and Other Backward Classes	11527.00	1689.20
12	Social Welfare	728.00	98.00
13	Nutrition	4550.00	..
14	Social Inputs	303.00	120.00
Total—(IX)—Social and Community Services		90000.00	41952.97
X—Economic Services			
1	Secretariat Economic Service (Planning Machinery)	304.00	..
2	Economic Advice and Statistics	789.00	349.92
3	Weights and Measures	182.00	25.00
4	Training of Development Personnel	213.00	184.50
5	Administrative Machinery for Tribal Area Sub-Plan	122.00	..
Total—(X)—Economic Services		1610.00	559.42

1	2	3	4
XI—General Services			
1	Civil Supplies and Consumers' Protection	366.00	366.00
2	Modernisation of Equipment (Wireless Network)	849.00	849.00
3	Decentralised District Planning	24405.00	—
Total—(XI)—General Services		25620.00	1215.00
XII Mid-day Meals Programme		55000.00	—
GRAND TOTAL		600000.00	401537.38

STATEMENT—II

Minorheadwise Summary of Outlays for Seventh Five Year Plan 1985—90

(Rs. in lakhs)

Sr. No.	Minorheads	Outlays for Seventh Five Year Plan 1985-90	
		Total	Capital
1	2	3	4
<i>I Agriculture and Allied Services</i>			
(1)	Education and Research		
1	Education	881.96	..
2	Extension Education	381.13	..
3	Research	1769.91	..
	Sub-Total (1)	3033.00	..
(2)	Crop Husbandry		
1	Direction and Administration	24.00	..
2	Multiplication and Distribution of seeds	474.61	37.50
3	Manures and Fertilizers	127.50	..
4	Plant Protection	278.00	..
5	Commercial Crops	259.90	..
6	Horticulture	247.75	12.00
7	Extension & Farmers Training	2931.74	611.25
8	Agricultural Engineering	337.50	..
9	Agricultural Economics & Statistics	307.00	..
10	Dry Farming	20.00	..
11	Others	86.00	..
12	Nucleus Budget (A. and R. D. D).	40.00	..
	Total (A. & R. D. D.)	5134.00	660.75
13	Special Programme for SF/MF for increasing Agril. prod. (A. & R. D. D.)	2550.00	..
14	Contingency Plan (R D)	36.00	..
	Sub-Total (RD)	36.00	..
	Sub-Total (2)	7720.00	660.75

1	2	3	4
(3) Soil and Water Conservation			
1	Soil Conservation	5176.25	..
2	Others	223.75	200.00
	Sub-Total (A. & R. D. D)	5400.00	200.00
3	Ghed Area Development	243.00	243.00
4	Khar Land Development	120.00	120.00
	Sub-Total (II)	363.00	363.00
	Sub-Total (3)	5763.00	563.00
(4) Animal Husbandry			
1	Direction and Administration	80.00	17.25
2	Veterinary Education and Training	5.75	..
3	Veterinary Services and Animal Health	691.65	183.80
4	Investigation & Statistics	17.25	..
5	Cattle Development	543.85	19.50
6	Poultry Development	187.20	8.90
7	Sheep & Wool Development	73.85	7.45
8	Other Live Stock Development	68.45	3.45
9	Fodder & Feed Development	57.50	9.75
10	Nucleus Budget	95.00	..
	Sub-Total (4)	1820.00	250.10
(5) Dairy Development			
1	Direction and Administration	38.00	..
2	Dairy Development	144.00	5.00
	Sub-Total (5)	182.00	5.00
(6) Fisheries			
1	Direction and Administration	6.00	..
2	Extension	32.00	12.00
3	Fish Farms	362.00	214.00
4	Hatcheries	40.00	12.00
5	Research	45.00	

1	2	3	4
6	Education and Training	124.00	18.00
7	Inland Fisheries	220.00	28.00
8	Fishing Harbours and Landing Facilities	689.00	669.00
9	Deepsea Fisheries	10.00	..
10	Processing, Preservation & Marketing	105.00	..
11	Mechanisation & Improvement of Fishing Crafts	328.00	..
12	Others	465.00	275.00
	Sub-Total (6)	2426.00	1228.00
(7) Forests			
1	Direction and Administration	188.40	..
2	Research	35.00	..
3	Education & Training	144.20	..
4	Forest Conservation and Development	714.00	690.00
5	Plantation Schemes	1089.20	591.35
6	Farm Forestry	106.20	106.20
7	Communication and Buildings	161.55	144.65
8	Preservation of Wildlife	387.00	..
9	Extension	9848.65	9848.65
10	Management of Zamindari	67.80	24.80
11	Others	222.00	64.40
	Sub-Total (7)	12964.00	11470.05
(8)	Investment in Agricultural Financial Institutions	971.00	971.00
(9)	Marketing	111.00	41.00
(10)	Storage and Warehousing	10.00	10.00
	Total—I Agriculture and Allied Services	35000.00	15198.90
II Rural Development :			
1	Integrated Rural Development Programme (IRDP)	5284.00	..
2	Scheme for Strengthening of Administration (Special Programme Organisation)	80.00	..
3	Development of Women & Children in Rural Areas	40.00	..
4	Project Linkage	35.00	..

1	2	3	4
5	National Rural Employment Programme (NREP)	3700.00	..
6	Drought Prone Area Programme (DPAP)	1575.00	..
7	Desert Development Programme (DDP)	256.00	..
8	Regional Rural Banks	11.00	..
9	Strengthening Training Facilities for Rural Development	10.00	..
10	Integrated Village Environmental Improvement Programme (IVEIP)	44.00	..
11	Community Development & Panchayats	485.00	..
12	Land Reforms		
1	Compensation to as signees of Surplus Land	160.00	..
2	Others	750.00	..
	Sub-Total (12)	910.00	..
	Total—II Rural Development	12430.00	..
III	Co-operation		
1	Direction and Administration	350.00	..
2	Credit Co-operatives	1630.00	762.50
3	Labour Co-operatives	30.00	4.00
4	Farming Co-operatives	20.00	2.00
5	Warehousing & Marketing Co-operatives	461.00	11.00
6	Processing Co-operatives	110.00	105.00
7	Co-operative Sugar Mills	572.00	482.00
8	Consumer's Co-operatives	68.00	34.35
9	Co-operative Training and Education	140.00	..
10	Other Co-operatives	259.00	257.00
	Total—III Co-operation	3640.00	1657.85
IV	Irrigation and Flood Control		
	Irrigation		
1	Water Development (Survey/Investigation & Research)	1500.00	..
2	Multipurpose River Valley Projects (Irrigation Portion only)	109150.00	109150.00
3	Major and Medium Irrigation		
	(i) Major Schemes	7861.00	7861.00
	(ii) Medium Scheme	13757.00	13757.00

1	2	3	4
4	Flood Control/Drainage, Salinity Ingress etc.	13935.00	12635.00
	Sub-Total I. & F. C.	<u>146203.00</u>	<u>143403.00</u>
5	Minor Irrigation	13455.00	1900.00
6	Command Area Development	6067.00	..
	Total-IV Irrigation & Flood Control.	<u>165725.00</u>	<u>145303.00</u>
V	<i>Power Development</i>		
1	Power Development-(Survey, Investigation and Research.)	100.00	100.00
2	Multipurpose River Valley Projects (Power portion only)	14650.00	14650.00
3	Power Projects (Generation)	72835.00	72835.00
4	Transmission & Distribution	50000.00	50000.00
5	General	525.00	400.00
6	Rural Electrification	7240.00	7240.00
7	Non-Conventional Sources of Energy including biogas	1300.00	..
	Total-V Power Development	<u>146650.00</u>	<u>145225.00</u>
VI	<i>Industries and Minerals</i>		
1	Village and Small Industries		
(i)	Small Industries	9361.00	4466.00
(ii)	Direction and Administration	75.00	..
(iii)	Handloom Industries	815.00	226.00
(iv)	Handicraft Industries	300.00	27.00
(v)	Co-operative Industries	550.00	235.00
(vi)	Khadi Industries	1000.00	110.00
(viii)	Other Expenditure	2260.00	80.00
	Sub-Total (1)	<u>14361.00</u>	<u>5144.00</u>
2	Medium and Large Industries		
1	General		
(i)	Direction and Administration	90.00	..
(ii)	Industrial Education, Research and Training	765.00	..
(iii)	Other Expenditure	1065.00	800.00
	Sub-Total (2)	<u>1920.00</u>	<u>800.00</u>

1	2	3	4
2A Large and Medium Industries			
(i)	Petro-Chemical & Fertilizer Industries	700.00	700.00
(ii)	Ship Building & Aeroanautical Industries	62.00	62.00
(iii)	Telecommunication and Electronics Industries	750.00	750.00
(iv)	Consumer Industries	500.00	500.00
(v)	Industrial Financial Institutions	4300.00	4300.00
(vi)	Other Expenditure	1325.00	1200.00
	Sub-Total (2)	<u>7637.00</u>	<u>7512.00</u>
	Sub-Total (2 + 2 A)	<u>9557.00</u>	<u>8312.00</u>
3 Mining			
(i)	Mineral Exploration and Development	600.00	100.00
(ii)	Loans for Mining and Metalurgical Industries	1267.00	1267.00
	Sub-Total : (3)	<u>1867.00</u>	<u>1367.00</u>
	Total-VII--ndustries and Minerals	<u>25785.00</u>	<u>14823.00</u>
VII Transport			
(1) Ports, Lighthouses and Shipping			
(a) Ports and Pilotage			
1	Development of Minor Ports	1550.00	1550.00
2	Construction and Repairs	300.00	300.00
3	Dredging and Surveying	500.00	500.00
4	Ferry Services (Inland Water Transport)	650.00	650.00
	Sub-Total : (a)	<u>3000.00</u>	<u>3000.00</u>
(b)	Coastal Zone Management	10.00	10.00
(c)	Lighthouses and Lightships		
	Construction and Development of Other Navigational Aids	26.00	26.00
	Sub-Total : (1)	<u>3036.00</u>	<u>3036.00</u>
2.	Roads and Bridges	25785.00	23735.00
3.	Road Transport	8494.00	8494.00

1	2	3	4
4. Tourism			
1	Tourist Accommodation	173.00	138.00
2	Tourist Information and Publicity	60.00	..
3	Other Expenditure	192.00	..
	Sub-Total : (4)	425.00	138.00
	Total : VII Transport	37740.00	35453.00
 <i>VIII. Scientific Services and Research</i>			
1.	Science and Technology Programmes	450.00	..
2.	Environmental Programmes	154.00	14.00
3.	Water Pollution Control	196.00	135.24
	Total : VIII Scientific services and Research	800.00	149.24
 <i>IX. Social and Community Services.</i>			
Education			
1. General Education			
(i)	Elementary Education (Primary and Middle)	4863.45	194.96
(ii)	Teachers' Education	273.15	10.00
(iii)	Adult Education	700.40	..
(iv)	Secondary Education Higher/Higher Secondary (IX--X) (XI-X II) Classes	1077.00	50.00
(v)	University Education	397.00	35.00
(vi)	Physical Education	60.00	..
(vii)	Development of Languages	225.00	25.00
(viii)	Nucleus Budget	215.00	..
	Sub-Total : (1)	7811.00	314.96
2.	Sports and Youth Services	272.00	41.10
	Sub-Total : (1)+(2)	8083.00	356.06
3.	Arts and Culture	593.00	114.00
4.	Technical Education	1820.00	1085.20
5. Medical and Public Health			
(i)	Direction and Administration	32.00	..
(ii)	Medical Relief	480.00	206.00
(iii)	Training	60.00	32.10
(iv)	Medical Education and Research	1197.00	175.00

1	2	3	4
(v) ISM and Homeopathy		300.00	116.00
(vi) Employees State Insurance		60.00	..
(vii) Control/Eradication of Communicable Diseases		2832.00	196.59
(viii) Minimum Needs Programme		4792.00	1960.00
(ix) Other Programmes (including School Health)		110.00	..
(x) Family Welfare Programme		64.00	..
(xi) Drug Control		292.00	68.00
(xii) C.M.S.O.		95.00	95.00
Sub-Total : (5) Medical and Public Health		10314.00	2848.69
6. Sewerage and Water Supply			
(i) Survey and Investigation		6.00	..
(ii) Research and Development		120.00	120.00
(iii) Urban Sanitation		6182.00	4855.00
(iv) Urban Water Supply		3995.00	3315.00
(v) Other Rural Water Supply Scheme		60.00	10.00
(vi) Rural Water Supply under M.N.P.		6233.00	6233.00
(vii) Rehabilitation of Rural Water Supply		120.00	120.00
(viii) Rural Sanitation		70.00	30.00
(ix) Others		80.00	80.00
Sub-Total : (6) Sewerage and Water Supply		16866.00	14763.00
7. Housing			
(i) Integrated subsidised Housing Scheme for Industrial Workers and Economically Weaker Sections of the Community		1400.00	1400.00
(ii) Low Income Group Housing Scheme		800.00	800.00
(iii) Administrative Buildings and Staff Quarters		3337.00	3337.00
(iv) Slum Clearance and Rehousing Scheme		55.00	55.00
(v) Village Housing Project Scheme		634.00	608.64
(vi) Provision of House sites-cum-construction for rural landless labourers (MNP)		6450.00	2302.00
(vii) Police Housing Scheme :			
(a) Police Housing		1305.00	1305.00
(b) Jail Housing		30.00	30.00
(viii) Others		2431.00	1690.60
Sub-Total : (7) Housing		16442.00	11528.24

1	2	3	4
8. Urban Development			
(i)	Town and Regional Planning	903.00	..
(ii)	Urban Development Programme	2000.00	1700.00
(iii)	Financial Assistance to Local Bodies	1500.00	1500.00
(iv)	Environmental Improvement of Slums (MNP)	500.00	-
(v)	Other Programmes	4865.00	200.00
Sub-Total : (8) Urban Development		9768.00	3400.00
9. Capital Project		3337.00	3337.00
10. Information and Publicity			
(i)	Direction and Administration	163.00	..
(ii)	Field Publicity	525.00	..
(iii)	Information Centres	20.00	..
(iv)	Others	50.00	50.00
Sub-Total : (10) Information and Publicity		758.00	50.00
11. Labour and Labour Welfare			
(i)	Education and Training—Craftsmen Training	3065.00	1886.00
(ii)	Employment Services	265.00	71.00
(iii)	Special Employment Programme	975.00	534.00
Sub-Total : (i) to (iii)		4305.00	2491.00
(iv)	Labour Welfare		
(1)	Industrial Relations	189.00	72.58
(2)	Working Conditions and Safety	102.00	..
(3)	General Labour Welfare	106.50	..
(4)	Social Security for Labour	80.00	..
(5)	Research and Statistics	26.00	..
(6)	Other Promotional Activities like Development of Institutions	100.00	..
(7)	Centrally Sponsored Scheme (Bonded Labour)	2.50	..
Sub-Total : (1) to (7)		606.00	72.58
Sub-Total : (11) Labour and Labour Welfare		4911.00	2563.58

1	2	3	4
12. Welfare of Scheduled Castes, Scheduled Tribes and Other Backward Classes			
(i) Scheduled Castes		3678.00	523.20
(ii) Scheduled Tribes		1027.00	154.70
(iii) Tribal Area Sub-Plan		3073.00	844.60
(iv) Nomedic Tribes		184.00	13.50
(v) Denotified Tribes		184.00	13.50
(vi) Socially and Educationally Backward Classes		2483.40	139.70
(vii) Economically Backward Classes		564.00	..
(viii) Minority		334.00	..
Sub-Total : (12) Welfare of Scheduled Castes, Scheduled Tribes and Other Backward Classes		11527.00	1689.20
13. Social Welfare			
(i) Direction and Administration		30.00	..
(ii) Child Welfare		30.00	..
(iii) Women Welfare		150.00	..
(iv) Education and Welfare of Handicapped		200.00	..
(v) Correctional Services		80.00	..
(vi) Welfare of Poor and Destitutes		20.00	..
(vii) Grant to Voluntary Organisations		60.00	..
(viii) Other Schemes for Social Defence		98.00	98.00
(ix) Prohibition		60.00	..
Sub-Total : (13) Social Welfare		728.00	98.00
14. Nutrition			
(i) Special Nutrition Programme		4550.00	..
15. Social Inputs		303.00	120.00
Total : IX—Social and Community Services		90000.00	4192.97
X. Economic Services			
(i) Secretariat Economic Services (Planning Machinery)		304.00	..
(ii) Economic Advice and Statistics		789.00	39.92
(iii) Weights and Measures		182.00	5.00

1	2	3	4
(iv) Training of Development Personnel		213.00	184.50
(v) Administrative Machinery for T.A.S.P.		122.00	..
Total : X—Economic Services		1610.00	559.42
<i>XI. General Services</i>			
(i) Civil Supplies and Consumers' Protection		366.00	366.00
(ii) Modernisation of Equipment (Wireless network)		849.00	849.00
(iii) Decentralised District Planning		24405.00	..
Total : XI—General Services		25620.00	1215.00
<i>XII. Mid-day Meals Programme</i>		55000.00	..
GRAND TOTAL ..		600000.00	401537.38

STATEMENT III

Targets of Production and Physical Achievements

Sr. No.	Item	Unit	Level of achievement at the end of				
			1979-80	1983-84	1984-85 (Base year level)	1985-90	
1	2	3	4	5	6	Cumulative Target. 7	Target (net) 8
I. Agriculture and Allied Services							
1. Production of Food-grains							
(i)	Rice	'000 Tonnes	516	754	838	..	860
(ii)	Wheat	"	1163	1626	1251	..	1770
(iii)	Jowar	"	637	582	514	..	656
(iv)	Bajra	"	1366	1608	1453	..	1760
(v)	Maize	"	140	476	384	..	520
(vi)	Other Cereals	"	155	138	123	..	160
(vii)	Pulses	"	372	559	537	..	550
	Total Food-grains	"	4349	5743	5100	..	6276
2. Commercial Crops.							
(i)	Oilseeds						
	Major Oilseeds						
	Groundnut	'000 Tonnes	1856	1810	1546	..	2190
	Castor Seed	"	193	281	350	..	290
	Sesamum	"	40	46	50	..	48
	Rapeseed and Mustard	"	155	236	268	..	312
	Total : Oilseeds		2244	2373	2214	..	2840
(ii)	Sugarcane (Gur)	'000 Tonnes	621	775	743	..	950
(iii)	Cotton	'000 Bales	1797	1444	1988	..	2000
(iv)	Tobacco	'000 Tonnes	181	187	180	..	262
3. Chemical Fertilizers							
(i)	Nitrogenous (N)	'000 Tonnes	224	317	324	..	523
(ii)	Phosphetic (P)	"	115	147	159	..	246
(iii)	Potassic (K)	"	39	38	37	..	65
	Total : (NPK)	"	378	502	520	..	834

1	2	3	4	5	6	7	8
4. Plant Protection							
(i)	Pesticides consumption (Technical Grade Material)	'000 Tonnes	7.00	6.50	4.25	..	10.00
(ii)	Area coverage	'000 Hect.	60.86	7226	9600	..	13000
5. High Yielding Varieties							
(i)	Rice-Total Area Cropped	'000 Hect.	550	540	566	..	521
	Area under HYV	„	256	376	406	..	425
(ii)	Wheat						
	Total area cropped	„	642	741	630	..	750
	Area under HYV	„	460	546	395	..	610
(iii)	Jowar						
	Total area cropped	„	1097	947	891	..	946
	Area under HYV	„	38	100	67	..	130
(iv)	Bajra						
	Total area cropped	„	1432	1337	1373	..	1398
	Area under HYV	„	1046	1278	1175	..	1335
(v)	Maize						
	Total area cropped	„	310	318	310	..	311
	Area under HYV	„	76	110	105	..	130
	Total Area under the above Five Cereals	„	4031	3883	3770	..	3926
	Total Area under the HYV For above Five Cereals	„	1876	2410	2148	..	2630
6. Commercial Crops							
(i)	Hybrid Cotton	'000 Hect.	326	278	384	..	375
(ii)	Hybrid castor	„	60	100	121	..	190
7.	Soil Conservation Works.	Lakh Hects.	18.90	15.80	16.04	17.88	1.84
8. Agriculture Marketing							
	Regulated markets	No.	287	303	303	328	25

	2	3	4	5	6	7	8
9. Storage Owned							
Capacity							
(i) State Warehousing Corporation.	'000 Tonnes	68.00	96.80	96.80	221.80	125.00	
(ii) Co-operatives	,,	319.00	502.00	598.00	798.00	200.00	
Total		387.00	598.80	694.80	1019.80	325.00	
10. Animal Husbandry and Dairy Products							
(i) Milk	'000 Tonnes	2151	2442	2640	3285	645	
(ii) Eggs	Million	201	214	220	308	88	
(iii) Wool	Lakh kg.	16.97	18.98	19.17	23.00	3.83	
11. Animal Husbandry Programmes							
(i) I. C. D. Project	Nos.	8	8	8	8	..	
(ii) Livestock Development Centres.	,,	..	435	435	595	160	
(iii) No. of Frozen Semen (bull) Stations	,,	1	1	1	3	2	
(iv) No. of inseminations performed with exotic bull semen per annum	in lakh	0.84	2.31	2.90	5.90	3.00	
(v) Establishment of Sheep breeding Farms	Nos.	3	3	3	4	1	
(vi) Sheep and Wool Extension Centres.	,,	88	88	88	88	..	
(vii) Intensive sheep Dev. Blocks.	,,	2	2	2	3	1	
(viii) Intensive Poultry Development Blocks.	,,	14	10	10	11	1	
(ix) District Poultry Extension Centres	No. } }		5	5	6	1	
(x) Establishment of Fodder Seed Farms.	Nos.	4	5	5	6	1	
(xi) Veterinary Dispensaries	,,	224	224	224	324	100	
(xii) Establishment of First Aid Centres.	,,	462	544	561	561	..	

1	2	3	4	5	6	7	8
12. Dairy Programmes							
(i)	Fluid Milk Plants	Nos.	13	13	13	13	..
(ii)	Milk Production Factories including creameries.	„	5	5	5	5	..
(iii)	Dairy Coop. Unions.	Nos.	18	18	18	18	..
(iv)	Feeder Socys. to be organised	„	6200	7877	8266	8866	600
13. Fisheries							
(i)	Fish Productions						
(a)	Inland	'000 Tonnes	17	21	25	35	10
(b)	Marine	„	208	223	293	350	57
	Total	„	225	244	318	385	67
(ii)	Mechanised Boats	Nos.	217	3272	3399	5204	1805
(iii)	Deep-sea Fishing Vessels	„	..	2	2	2	..
14. Forestry.							
(i)	Plantation of quick growing species	'000 Hect.	36.22	6.02	7.52	12.52	5.00
(ii)	Economic and Commercial plantations	„	94.76	16.55	20.21	37.00	16.79
(iii)	Social Forestry	„	154.40	79.81	107.26	180.08	72.82
(iv)	Afforestation Trees planted	Nos. '000	..	262397	360341	425741	65400
II Rural Development							
1. I. R. D. P.							
(i)	Beneficiaries identified	Nos.	75095	1093122	1093122	1478122	385000
(ii)	Beneficiaries assisted	Nos.	75095	630344	785414	1093414	308000
(iii)	Scheduled caste/scheduled tribe beneficiaries	Nos.	..	208078	263658	377658	114000
(iv)	Beneficiaries assisted under Industries services and Business (ISB)	Nos.	..	121251	157521	259121	101600
(v)	Youths trained/being trained under TRYSEM	Nos.	..	52473	62948	106548	43600

1	2	3	4	5	6	7	8
(vi) Youth Self Employment	Nos.	—	19200	24341	—	—	—
(vii) Development of Women and children in Rural areas (DWCRA)							
(i) No. of groups organised/ Strengthened.	Nos.	—	16	118	598	480	
2. NREP (including RLEGP)							
(i) Employment generated	Lakh Mandays	—	404.79	504.40	735.65	231.25	
3. DPAP							
(i) Block Covered	Nos.	41	42	42	43	1	
4. Desert Development Programme (DDP)							
(i) Block Covered	Nos.	—	8	8	9	1	
5. Project for Small Farmers Marginal Farmers.							
Beneficiaries assisted	Nos.	—	125069	281459	681459	400000	
III Co-operation							
(i) Short terms loan	Rs. in Crores	155	150	160	460	300	
(ii) Medium term loans	„	10	10	15	85	70	
(iii) Long term loans	„	4	23	19	234	215	
(iv) Retail Sales of Fertilizers	„	98	153	170	300	130	
(v) Agricultural Produce Marketed.	„	195	272	300	450	150	
(vi) Retail Sale of Consumers goods by urban Consumer Co-operatives	„	47	60	60	180	120	
(vii) Retail sale of consumers goods through co-operatives in Rural Areas	Rs. in crores	98	50	50	150	80	

(viii) Processing Units

(a) Organised	}	No.	161	162	170	185	15
(b) Installed							

IV Irrigation and Flood Control
Minor Irrigation

(1) Ground water

(a) Potential	'000 hect.	1608	1778	1814	2152	338
(b) Utilisation	"	80	95	100	160	60

(ii) Surface

(a) Potential	"	128	159	166	268	102
(b) Utilisation	"	1386	1515	1541	1741	200

Total (a) Potential	"	1736	1937	1980	2420	440
(b) Utilisation	"	1466	1610	1641	1901	260

Major and Medium Irrigation

(i) Potential	'000 hect.	..	1001	1081	1181	100
(ii) Utilisation	'000 hect.	..	640	715	795	80

V. Power

(i) Installed capacity	MW	2384	2976.5	3383.5	5113	1729.5
(i) Electricity generated (including Purchased)	MKWH	8254	12847	12940	20240 +2400 purchase	20240 + 2400 purchase
(iii) Electricity Sold	MKWH	7853	9891	10640 tentive	10850	10850
(iv) Transmission lines (220 KV and above)	CKM	2964	4070	4347	7391	3844
(v) Rural Electrification						
(a) Village electrified (1971 census)	Nos.	10807	14930	16135	18275	2140
(b) Pump sets and Tube wells energised by electricity.	Nos.	202833	273762	292387	392387	100000

1	2	3	4	5	6	7	8
VI Transport							
1.	Road Length	Kms.	45108	55481	55560	59835	4275
2.	Minor Ports : Traffic handled	Lakh Tonnes	24.60	42.16	48.08	57.00	8.92
VII Social and Community Services							
1. Elementary Education							
(i)	Classes-I-V (age group 6-10) enrolment	'000	4209	4688	4827	5772	945
(ii)	Classes VI-VIII (age group 11-13) enrolment	'000	1098	1357	1453	2174	721
2. Adult Education							
(i)	Number of Participants (age group 15-35)	Lakh	2.38 (Net)	2.60 (Net)	3.50 (Net)	—	24.00
(ii)	Number of Centres opened under						
(a)	Central Programme	Nos.	1345 (Net)	3205 (Net)	5842 (Net)	—	31000
(b)	State Programme	„	1432 (Net)	3059 (Net)	4316 (Net)	—	20000
(c)	Voluntary Agencies	„	3512 (Net)	1587 (Net)	2626 (Net)	—	18000
(d)	Other Programmes	„	207 (Net)	255 (Net)	833 (Net)	—	10000
3. Health and Family Welfare							
(i)	Hospitals and Dispensaries :						
(a)	Urban	Nos. (cum.)	298	302	302	308	6
(b)	Rural	„ „	399	444	449	481	32
(ii)	Beds :						
(a)	Urban hospitals and dispensaries	Nos.	11217	11621	11621	12893	1272
(b)	Rural hospitals and dispensaries	„	4569	4982	5387	8337	2950
(c)	Bed population Ratio	No. (per 1000)	0.51	0.49	0.49	0.50	0.50
(iii)	Nurse and Doctor Ratio	No. per Doctor	N.A.	1:1	1:1	1:1	1:1
(iv)	Doctor population Ratio (estimates)	No.(per '000 (population)	N.A.	1 : 2287	1 : 2231	1 : 2021	1 : 2021

1	2	3	4	5	6	7	8
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(vi) Health Centres.

	Nos.(Cum)	2500	3700	4869	6119	1250
(a) Sub-Centre						
(b) Primary Health Centres	" "	}	251	257	260	1000
(c) Subsidiary " "	" "			40	50	
(d) Community " "	" "		12	13	21		121	100

4 Rural Water Supply :
Minimum Needs Programme.

	Nos.	3720	6840	8212	5000	
(a) Number of 'No Source' Villages covered out of 1980 list 9038	"	}			5000	
(b) New list	"		—	876		1165
Total :	"		3720	7716		9377

5. Housing

(i) Rural Housing Provision of Hous: Sites-Cum-Construction schemes for rural landless workers

	Lakh Nos.	4.07	7.84	8.49	10.55	2.06
(a) Allotment of Sites						
(b) Construction assistance	" "	1.12	2.95	3.40	6.47	3.07

6. Urban Development :

Environmental improvement of slums (MNP) persons covered

No.	149338	423677	505497	705497	200000
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7. Labour and Labour Welfare.

(i) Craftsman Training.

	Nos.	22	31	33	48	15
(a) No. of Industrial Training Institutes (ITIS) and GIA Institutions	Govt.					
	GIA	—	36	64	90	26

Total	22	67	97	138	41
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	Govt.	8040	18460	21472	31472	10000
(b) Intake Capacity	GIA	—	3160	5176	7176	2000
Total		8040	21620	26648	38648	12000

1	2	3	4	5	6	7	8
(c)	No. of persons undergoing training	Govt. GIA.	7805 —	19293 3112	21019 4895	32000 7500	10981 2605
		Total	7805	22405	25914	39500	13586
(d)	Out turn	Govt. GIA.	6000 —	10000 1600	12000 2800	20000 6000	8000 3200
		Total	6000	11600	14800	26000	11200
(ii)	Labour Welfare Labour Welfare Centres.	Nos.	—	63	101	161	60
8. Welfare of Backward Classes :							
(i)	Pre-matric education incentives						
(a)	Scholarships/Stipeneds	No. (Net)	205000	518216	551289	—	948662
(b)	Other incentives like boarding, grants books, Stationery and uniforms	No. of students (Net)	66000	202882	241909	—	1241930
(c)	Ashram schools	Nos.	204	338	360	585	225
(ii)	Economic Aid for Cottage Industry	Nos.	21100	16058	17000	—	149798
(iii)	Hostels	Nos.	746	966	1001	1378	377
9. Social Welfare							
Welfare of the Handicapped							
(a)	Programmes for the Blinds						
		Units	10	14	14	16	2
		Beneficiaries	300	720	720	820	100
(b)	Programmes for the Deaf						
		Unit	17	23	23	25	2
		Beneficiaries	510	690	690	890	200
(c)	Programmes for the Orthopaedically Handicapped						
		Units	4	6	6	8	2
		Beneficiaries	120	180	180	380	200

STATEMENT—IV

Minimum Needs Programme—Outlays for Seventh Five Year Plan, 1985-90

Sr. No.	Name of the Programme	Outlays for the Seventh Five Year Plan 1985—90
1	2	3
1.	Rural Roads	3724.00
2.	Elementary Education	5136.60
3.	Adult Education	700.40
4.	Rural Health (including Ayurved)	4842.00
5.	Rural Water Supply	6233.00
6.	Rural House Sites—cum—Construction Scheme	
	(a) Allotment of Sites	310.00
	(b) Construction assistance	6140.00
	Sub-total—6	6450.00
7.	Environmental Improvement of Slums	500.00
8.	Nutrition	4550.00
	GRAND TOTAL	32136.00

STATEMENT—V

Minimum Needs Programme—Seventh Five Year Plan 1985-90—Physical Targets and Achievements

Sr. No.	Programme/Item	Unit	Level of achievement at the end of				
			1979—80	1983—84	1984—85 (Base year level)	1985-90 Cumulative	Targets Net
1	2	3	4	5	6	7	8
1. Rural Roads							
(a)	Rural Roads—Length	Kms.	24034	33517	34817	35817	1000
(b)	Total No. of Villages in the State (1981 Census)	No.	—	18116	—	—	—
(c)	Villages Connected						
(i)	With Population 1500 and above	No. (5060)	2441	4502	4602	5029	427
(ii)	1000—1500	No. (3241)	1402	2295	2395	2825	430
(iii)	Below 1000	No. (9815)	3569	4322	4622	5548	926
	Total		7412	11119	11619	13402	1783
2. Elementary Education							
(a)	Class I—V (Age group 6-10 years) Enrolment	'000 Nos.	4209	4688	4827	5772	945
(b)	Class VI—VIII (Age group 11-13 years) Enrolment	'000 Nos.	1098	1357	1453	2174	721
3. Adult Education							
(a)	Number of Participants (15-35 years)	,000 Nos.	869	260 (Net)	350 (Net)	—	2400
(b)	No. of Centres opened under:—						
(i)	Central Programme	No.	6202	3205 (Net)	5842 (Net)	—	31000
(ii)	State Programme	No.	2820	3059 (Net)	4316 (Net)	—	20000
(iii)	Voluntary Agencies	No.	13318	1587 (Net)	2626 (Net)	—	18000
(iv)	Other Programmes	No.	..	255 (Net)	833 (Net)	—	10000

1	2	3	4	5	6	7	8
4. Rural Health							
(a)	Sub-Centres	No.	2500	3700	4869	6119	1250
(b)	Primary Health Centres	No.	251	257	260	1000	690
(c)	Subsidiary Health Centres	No.	..	40	50		
(d)	Community Health Centres	No.	12	13	21	121	100
(e)	Rural Health Centres (Ayurved)	No.	450	..	..	100	100
5. Rural Water Supply							
(a)	No. of No source villages covered out of 1980 list (9038)	No.	3326	6840	8212	—	5000
(b)	New list	No.	..	876	1165		
Total		No.	3326	7716	9377	—	5000
6. Rural House site-cum-Construction Schemes							
(a)	Allotment of sites	Lakh No.	4.07	7.84	8.49	10.55	2.06
(b)	Construction assistance	„	1.12	2.95	3.40	6.47	3.07
7. Nutrition							
(a)	Special Nutrition Programme Beneficiaries Covered	Lakh No.	7.70	4.50	2.91	13.80	7.25
(b)	Beneficiaries Covered Under ICDS	Lakh No.		2.75	3.64		
8. Environmental Improvement of Slums							
Persons benefitted		No.	149338	423677	505497	705497	200000

SUMMARY STATEMENT—VI

Centrally Sponsored Schemes on sharing basis

(Rs. in lakhs)

Sr. No.	Sector/Sub-Sector	Outlay for the Seventh Five Year Plan 1985-90		
		State share	Central share	Total
1	2	3	4	5
1	Crop Husbandry	3191.66	3191.66	6383.32
2	Animal Husbandry	281.45	281.45	562.90
3	Fisheries	785.00	846.00	1631.00
4	Forests	681.20	324.06	1005.26
5	Rural Development	10935.00	10935.00	21870.00
6	Land Reforms	150.00	150.00	300.00
7	Co-operation	405.00	405.00	810.00
8	Minor Irrigation	200.00	200.00	400.00
9	Command Area Development	5172.00	5172.00	10344.00
10	Power Development	3939.00	2134.30	6073.30
11	Industries and Minerals	666.00	666.00	1332.00
12	Ports	75.75	227.25	303.00
13	Roads	39.00	39.00	78.00
14	General Education	30.00	36.00	66.00
15	Medical and Public Health	2932.00	2932.00	5864.00
16	Urban Development	700.00	1400.00	2100.00
17	Labour and Labour Welfare	2.50	2.50	5.00
18	Welfare of Backward Classes	1219.00	1203.00	2422.00
19	Social Welfare	17.50	17.50	35.00
GRAND TOTAL		31422.06	30162.72	61584.78

STATEMENT VI

Centrally Sponsored Schemes on sharing basis (Outlays for Seventh Five Year Plan 1985-90.

(Outlays as per departmental proposals)

(Rs. in lakhs).

Sr. No.	Name of the Scheme	Pattern of Sharing	Outlay for Seventh Five Year Plan 1985-90		
			State Share	Central Share	Total
1	2	3	4	5	6
I. Crop Husbandry					
1.	AGR-14. Processing facilities for Seed Corporation.	50:50	16.36	16.36	32.72
2.	AGR-15. Scheme for reserved stock for certified and foundation and breeder Seed	„	25.25	25.25	50.50
3.	AGR-20. Scheme to help farmers in eradication of pests and diseases by agrochemical operations.	„	83.50	83.50	167.00
4.	AGR-22. Control of white grubs.	„	10.00	10.00	20.00
5.	AGR-25. Rodent Control.	„	1.00	1.00	2.00
6.	ARG-26. Pilot sample Survey to estimate the incidence of pests and diseases and consequent loss in crop yield of oilseeds.	„	9.00	9.00	18.00
7.	AGR-28. Scheme for intensive Cotton District Programme.	„	100.00	100.00	200.00
8.	AGR-30. Scheme for development of pulses.	„	95.90	95.90	191.80
9.	AGR-31. Sugarcane Development in Gujarat State.	„	50.00	50.00	100.00
10.	AGR-63. Popularisation of improved agricultural implements.	„	40.00	40.00	80.00
11.	AGR-73. Scheme for sprinkler drip irrigation facilities and improved devices for lift irrigation.	„	135.00	135.00	270.00
12.	AGR-78. Scheme under coordinated programme for Pre-harvest forecasting the yield of crop of Groundnut.	„	5.00	5.00	10.00
13.	AGR-79. Scheme for timely reporting of estimates of area and production of principal crops.	„	30.00	30.00	60.00
14.	AGR-80. Scheme for improvement of crop statistics.	„	17.25	17.25	34.50

1	2	3	4	5	6
15.	AGR-83. Sample Survey for study of constraints in transfer of new technology under field conditions.	50:50	1.65	1.65	3.30
16.	AGR-87. Pilot Sample Survey for determining cost of production of important fruits and spices and studying their market practices.	"	1.75	1.75	3.50
17.	AGR-88. Popularisation of input use in dry farming areas.	"	20.00	20.00	40.00
18.	AGR-92. Special programme for assisting SF/MF for increasing agricultural production.	"	2550.00	2550.00	5100.00
Total : Crop Husbandry-I			3191.66	3191.66	6383.32
II. Animal Husbandry.					
1.	ANH-3. Improvement of Veterinary aid Establishment of Mobile Units.	50:50	15.00	15.00	30.00
2.	ANH-4. Disease Control Programme.				
(a)	Purchase of Foot and mouth Diseases vaccine	"	8.75	8.75	17.50
(b)	Establishment of pullorum Disease Unit.	"	5.00	5.00	10.00
(c)	Establishment of cell culture viral Diagnostic reagents production unit.	"	16.50	16.50	33.00
(d)	Animal Disease Surveillance	"	8.25	8.25	16.50
(e)	Control of livestock disease of National Importance.	"	16.00	16.00	32.00
Investigation and Statistics.					
3.	ANH-5. Strengthening of Statistical wing.	"	17.25	17.25	34.50
Cattle Development.					
	ANH-6. Cross Breeding Programme-Embryo Transfer unit.	"	5.00	5.00	10.00
4.	ANH-8. Projeny testing programme under Cattle breeding farm.	"	4.00	4.00	8.00
5.	ANH-9. Subsidy to cattle breeding institution and Gaushalas.	"	20.00	20.00	40.00
6.	ANH-11. Assistance to SF/MF/AL for rearing of cross bred heifers.	"	25.30	25.30	50.60
Poultry Development.					
	ANH-12. Coordinated poultry breeding programme.	"	5.75	5.75	11.50
7.	ANH-14. Beneficiary oriented Programme.	"	95.00	95.00	190.00

1	2	3	4	5	6
Sheep Development					
8.	ANH--16 Establishment of sheep Breeding Farm.	50 : 50	15.00	15.00	30.00
Other Live Stock Development					
9.	ANH--18 Establishment of Horse Breeding Farm.	„	8.65	8.65	17.30
Feed & Foder Development					
10.	ANH--21 Fodder Development Programme	„	16.00	16.00	32.00
Total—Animal Husbandry II			281.45	281.45	562.90
III. Fisheries					
1.	FSH--11 Establishment of coastal aquaculture Fish Farm & hatchery	50:50 50% for the year 1985-86	9.00	9.00	18.00
2.	FSH--12 Establishment of two 10 hectares hatchery unit at Kheda & Surat Districts.	30:70 70% on works and contgs.	12.00	30.00	42.00
3.	FSH--20 Scheme sponsored by I.C.A.R. Central Sector.	25:75	3.00	6.00	9.00
4.	FSH--21 Scheme sponsored by Fish Farmers Development Agencies.	50:50 50% on Capital & 50% on subsidy	52.00	52.00	104.00
5.	FSH--26 Development of Fishery harbours	50:50	509.00	509.00	1018.00
6.	FSH--27 Landing and berthing facilities at minor ports.	„	70.00	70.00	140.00
7.	FSH--28 Water Supply at various fishing centres.	„	20.00	20.00	40.00
8.	FSH--30 Providing dredging facilities at minor ports.	„	40.00	40.00	80.00
9.	FSH--29 Infrastructure facilities for fishing harbour navigational aids.	„	50.00	50.00	100.00
10.	FSH--49 Accident insurance of fisherman members of cooperative Societies.	„	10.00	10.00	20.00
11.	FSH--52 Programme under national welfare fund reservior fisheries.	5 times of the State share	10.00	50.00	60.00
Total : Fisheries-III			785.00	846.00	1631.00

1	2	3	4	5	6
<i>IV. Forests</i>					
1.	FST--30 Social Forestry including Rural Fuelwood plantations.	Rs. 1000 (Rs. one thousand per hectare)	508.65	262.06	770.71
2.	FST--17 Development of Gir and Barda lion sanctuaries.	50% Non-Recurrent expenditure.	66.35	22.00	88.35
3.	FST--20 Development to Ratanmahal-Dumkhal and Jessor Sloth Bear Sanctuaries.	50% Non-Recurrent expenditure	13.00	10.00	23.00
4.	FST--18 Development of Wild Ass Sanctuary.	„	13.00	10.00	23.00
5.	FST--21 Development of Vansda National Park & Purna Game	50% Non-Recurrent expenditure	13.00	5.00	18.00
6.	FST--24 Exhibition to Promote Wild Life Conservation.	„	16.25	5.00	21.25
7.	FST--28 Development of Black Buck National Park.	„	24.95	5.00	29.95
8.	FST--19 Development of Zoological and wild life parks.	„	26.00	5.00	31.00
Total—Forest-IV			681.20	324.06	1005.26
<i>V. Rural Development</i>					
1.	IRD— Intregated Rural Development Programme (IRDP).	50:50	5284.00	5284.00	10568.00
2.	NEP— National Rural Employment Programme (NREP).	„	3700.00	3700.00	7400.00
3.	DAP— Drought Prone Area Programme (DPAP)	„	1575.00	1575.00	3150.00
4.	DDP— Desert Development Programme (DDP).	„	256.00	256.00	512.00
5.	SPO— Strengthening of Administration for Special Programmes.	„	80.00	80.00	160.00
6.	DWC— Development of Women & Children in Rural Areas.	„	40.00	40.00	80.00
Total—Rural Development—V			10935.00	10935.00	21870.00

1.	2	3	4	5	6
VI Land Reforms					
1	LND—10 Financial Assistance to assignees of surplus land.	50%	150.00	150.00	300.00
Total : Land Reforms-VI			150.00	150.00	300.00
VII Co-operation					
1	COP-19—Providing assistance to Co-operative Credit Institutions in the under developed and special areas (Assistance to District Central Co-operative Banks for non-overdue cover)	50:50	120.00	120.00	240.00
2	COP-32—National Grid Godown	50:50	285.00	285.00	570.00
Total : Co-operation-VII			405.00	405.00	810.00
VIII Minor Irrigation					
1	MNR-2—Strengthening of Ground Water Organisation Equipments	50:50	200.00	200.00	400.00
Total : Minor Irrigation-VII			200.00	200.00	400.00
IX Command Area Development					
1	CAD-1—Establishment of Command Area Development Organisation	50:50	463.00	463.00	926.00
2	CAD-2—On farm Development works	„	4481.50	4481.50	8963.00
3	CAD-3—Science and Technology	„	10.00	10.00	20.00
4	CAD-4—Education and Training	50:50	50.00	50.00	100.00
5	CAD-5—Introduction of sprinkler/drip System of irrigation as adaptive trial	50:50	17.50	17.50	35.00
6	CAD-6—Soil survey of the command area of irrigation schemes.	50:50	150.00	150.00	300.00
Total—Command Area Development-IX			5172.00	5172.00	10344.00
X Power Development					
PWR—16 Renovation Schemes					
1	Gandhinagar TPS		603.00	917.10	1520.10

1	2	3	4	5	6
2	Ukai TPS		2500.00	581.20	3081.20
3	Dhuvaran TPS		836.00	636.00	1472.00
Total—Power Development-X			3939.00	2134.30	6073.30
XI Industries and Minerals					
1	IND-29—District Industries Centres	50 % Limited to Rs. 3 lakhs p r DIC	500.00	500.00	1000.00
2	IND-30—Rural Industries Project/Rural Artisans Projects	50:50	45.00	45.00	90.00
3	IND-34—Margin money Loan for working Capital to sick units under sick units Revival Programme	50:00	121.00	121.00	242.00
Total : Industries and Minerals-XI			666.00	666.00	1332.00
XII—Ports					
1	RPT-5. Development of Inland Water Transport in rivers of Gujarat State		25:75	75.75	227.25
Total—XII				75.75	227.25
XIII—Roads					
1.	Roads of Economic Importance		50 : 50	39.00	39.00
Total—XIII				39.00	39.00
XIV—General Education					
1.	EDN-4 Appointment of Hindi Teachers in non-Hindi Speaking States		50 : 50	15.00	15.00
2.	EDN-73 National Service Scheme		50 : 70	15.00	21.00
Total—XIV				30.00	36.00
XV Medical and Public Health					
1.	HLT-30 Reorientation of Medical Education		50 : 50	100.00	100.00
2.	HLT-50 National T. B. Control Programme		50 : 50	372.00	372.00
3.	HLT-51 National Filaria Control Programme		50 : 50	75.00	75.00
4.	HLT-53 National Malaria Eradication Programme		50 : 50	2385.00	2385.00
Total—XV				2932.00	2932.00
XVI—Urban Development					
XVI—Urban Development			25:25:50	700.00	1400.00
1.	UDP-10 Integrated Development of small & medium towns				
Total—XVI				700.00	1400.00

1	2	3	4	5	6
XVII—Labour and Labour Welfare					
1.	LBR-26 Abolition of bonded labour	50 : 50	2.50	2.50	5.00
	Total—XVII ..		2.50	2.50	5.00
XVIII—Welfare of Backward Classes					
Education					
1.	BCK-4 Pre S. S. C. Scholarships for Children of S.Cs. whose parents are engaged in unclean occupations	50 : 50	80.00	80.00	160.00
2.	BCK-10 Opportunity cost to Girl Students for I to VII	50 : 50	287.20	287.20	574.40
3.	BCK-12 Book banks for Medical and Engineering Students	50 : 50	9.80	9.80	19.60
4.	BCK-14-A Grant-in-aid to backward class hostels for boys and girls for construction	50 : 50	83.20	83.20	166.40
5.	BCK-18 Construction of Government hostels for boys and girls	50 : 50	115.00	115.00	230.00
	Sub-Total—Education		575.20	575.20	1150.40
Economic uplift					
6.	BCK-31-A Pre Examination training Centres	50 : 50	16.50	16.50	33.00
7.	BCK-33 Fullfledged hostels and training Centre at Gandhinagar	50 : 50	70.00	70.00	140.00
8.	BCK-38 S. C. development Corporation, Gandhinagar	50 : 50	396.00	380.00	776.00
	Sub-Total—Economic Uplift		482.50	466.50	949.00
Health Housing and Other Programmes					
9.	BCK-62 Nagrik Cell	50 : 50	150.00	150.00	300.00
10.	BCK-63 Tribal Research Training Institute	50 : 50	11.30	11.30	22.60
	Sub-Total—Health, Housing and Other Programmes		161.30	161.30	322.60
	Total-Welfare of Backward Classes—XVIII		1219.00	1203.00	2422.00
XIX—Social Welfare					
1.	SCW-4 Services for Children in need of care and protection	50 : 50	15.00	15.00	30.00
2.	SCW-15 Training Centre for women in distress	50 : 50	2.50	2.50	5.00
	Total—Social Welfare—XIX ..		17.50	17.50	35.00
	GRAND TOTAL ..		31422.06	30162.72	61584.78

STATEMENT—VII.

Fully Centrally Sponsored Schemes
Outlays for Seventh Five Year Plan 1985-90

(Outlays as per Departmental proposals)

(Rs. in lakhs)

Sr. No. 1	Name of the Scheme 2	Outlay for 1985-90 3
1 Crop Husbandry		
1	Community Nursery Programme in rice	35.00
2	National Oil Seeds Development Project	3752.00
3	Reorganisation and strengthening of extension services	9.35
4	Demonstration of intensive cultivation of maize in SC and ST areas	9.75
5	Improvement of irrigation statistics	12.50
6	Crop estimation survey on fruits, vegetables and minor crops	23.20
7	Free minikits for cereal crops in dry farming areas	8.25
	Sub-Total : (1)	3850.05
2 Soil and Water Conservation		
8	Carrying out soil conservation work in the River Valley Projects	600.00
	Sub-Total : (2)	600.00
3 Animal Husbandry		
9	Disease control programmes operations rinder pest Zero Programme	41.10
	Sub-Total : (3)	41.10
4 Fisheries		
10	Infrastructure facilities and fish based industries	7.00
	Sub-Total : (4)	7.00
5 Forest:		
11	Soil conservation in catchment area of Dantiwada River Valley Project	275.00
	Sub-Total : (5)	275.00

1	2	3
	6 Rural Development	
12	Rural Landless employment guarantee programme	7400.00
	Sub-Total : (6)	7400.00
	7 Co-operation	
13	Agricultural Credit Stabilisation fund of Co-op. Bank	500.00
14	Development of Consumers Co-operatives	28.00
	Sub-Total : (7)	528.00
	8 Power Development	
15	National Project on Bio-gas development	1080.00
	Sub-Total (8)	1080.00
	9 Industries and Minerals	
16	Interest subsidy to Engineering Centres	25.00
17	Census-cum-Sample Survey	25.00
18	10% or 15% Central outright cash subsidy	6000.00
	Sub-Total : (9)	6050.00
	10. General Education	
19	Strengthening of administrative structure	100.00
20	Rural functional literacy programme	675.00
21	Production of text books and other literature in Gujarati at University stage	30.00
22	Post Graduate Courses	100.00
23	National Fitness Corps	390.00
24	Education Technology Programme	12.60
25	National Merit Scholarship	20.00
26	Talented students scholarship for rural areas	20.00
27	Scholarships to non-Hindi speaking students in non-Hindi states for post-matric studies in Hindi	15.00
28	UNICEF assisted projects	25.00
29	INSAT projects	250.00
30	Implementation of Antiquities and Art Training Act	25.00

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31	National Loan Scholarships to meritorious students	90.00
32	Teacher's son scholarships	1.00
	Sub-Total : (10)	1753.60
	11 Technical Education	
33	Post Graduate Courses	50.00
	Sub-Total : (11)	59.00
	12 Medical and Public Health	
34	Prevention of visual impairment and control of blindness	858.59
35	National Leprosy Control Programme	381.76
36	Upgrading and development of post graduate training and research in Kayachikitsa	25.00
37	Development of ISM Pharmacy and Drug testing laboratory	15.00
38	Family Welfare Programme	18451.79
39	Family Welfare Unit in Sachivalaya	10.00
40	Multi-purpose Workers Scheme	550.00
41	Project, Planning and Monitoring Cell	10.00
42	STD Cell in DHSC(H), Ahmedabad	15.00
43	Regional Public Health Training Institute	25.00
	Sub-Total : (12)	20342.14
	13 Water Supply	
44	Accelerated Rural Water Supply Programme	5000.00
	Sub-Total : (13)	5000.00
	14 Welfare of Backward Classes	
45	Government of India Scholarship for Post S.S.C. Students	1300.00
	Sub-Total : (14)	1300.00
	15 Social Welfare	
46	Special Employment Exchange for Physically Handicap persons	10.00
	Sub-Total : (15)	10.00
	16 Nutrition	
47	Integrated Child Development Programme (I.C.D.S.)	3255.00
	Sub-Total : (16)	3255.00
	GRAND TOTAL :—	51541.89

