

13. Social Infrastructure

Development of social infrastructure comprising education, health and medical care, nutrition, housing and water supply which is instrumental in contributing to substantial improvements in human resources development which, in turn, initiate and accelerate economic development with increased telesis. Physical quality of life and human well being are pivotal on the enhanced availability of these social services. These services are key to overall increased productivity. Investment in human development programmes, enable the poor to help themselves and try to give a fair chance of getting those rewards. On social front Government adopts a three-pronged approach during the successive Five Year Plan periods - augmenting increased resources on social sector, implementing anti-poverty programmes in an effective way and accelerating economic growth.

Public Expenditure:

Recognising the importance of *social capital** the Government has placed social services as the centre stage of the development strategy. Social sector expenditure enhanced to Rs.972178.99 lakhs in 2004-05 works out to 33.83 per cent of the total budgetary expenditure of over Rs.859776.91 lakhs in 2003-04, showing an increase of 13.07 per cent. Among the social sector 47 per cent of the total allocation goes in favour of education followed by health sector (21%), water supply (2%) and housing (1.0%). This indicates the seriousness of the Governments' commitment to promotion of social infrastructure, which is the greatest resource in the growth process.

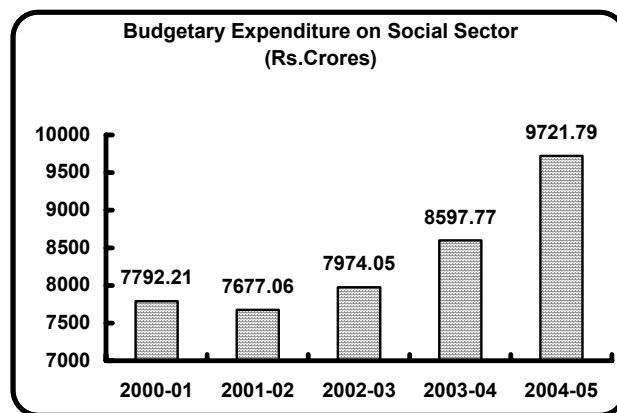


Table -1: Public Expenditure on Social Sector (Rs. in lakhs)

Year	Educa-tion	Health	Water Supply	Housing	Others	Total Social Sector	Total Budgetary Expenditure
1999-00	434871.82	166536.52	26108.15	2266.99	134599.59	764383.07	2072783.12
2000-01	439599.87	170852.57	18069.85	2639.11	148059.44	779220.84	2175244.26
2001-02	429286.88	164743.42	16292.43	2844.60	154538.32	767705.65	2155697.25
2002-03	414532.71	171551.03	21630.10	6173.06	183517.63	797404.53	2568769.74
2003-04	417506.11	188193.92	25284.19	12128.52	216664.17	859776.91	2527095.13
2004-05(R.E)	455619.78	203554.56	20179.79	9998.03	282828.83	972178.99	2873678.99

Source: Budgetary Documents of various years.

Human Development:

Economic development may be conceived of as a multidimensional process. In order to link the economic attainment of society and the quality of life, human development frame

* **Social Capital** intangible economic resources are trust and reciprocity, which inherited in social relationship and ground successful transition to modernity. Amartya Sen, the 1998 Nobel Laureate, emphasises that economic growth and development at a faster rate is impossible in the absence of social capital.

work has been developed. The Human Development Index computed both by the National Planning Commission and State Planning Commission gauges the overall accomplishments made in three basic dimensions of human development viz. *longevity and health, education and knowledge and decent standard of living*. Going by these parameters, the State had showcased impressive progress over a period.

In terms of HDI Tamil Nadu's rank among 15 major States improved from seventh position in 1981 to third place 1991 and remained at the same place in 2001. The value of the Index is higher than that of for all India. It attests to the fact that Tamil Nadu occupies top slot in Human Development Index next to Kerala and Punjab in 2001.

Table - 2: Human Development Index for India - Combined

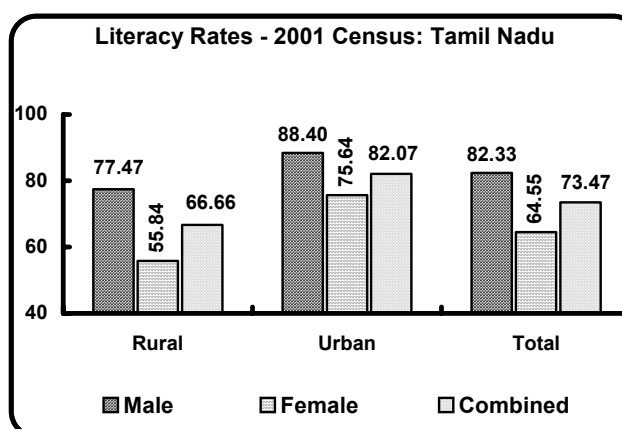
States	1981		1991		2001	
	Value	Rank	Value	Rank	Value	Rank
Andhra Pradesh	0.298	9	0.377	9	0.416	10
Assam	0.272	10	0.348	10	0.386	14
Bihar	0.237	15	0.308	15	0.367	15
Gujarat	0.360	4	0.431	6	0.479	6
Haryana	0.360	5	0.443	5	0.509	5
Karnataka	0.346	6	0.412	7	0.478	7
Kerala	0.500	1	0.591	1	0.638	1
Madhya Pradesh	0.245	14	0.328	13	0.394	12
Maharashtra	0.363	3	0.452	4	0.523	4
Orissa	0.267	11	0.345	12	0.404	11
Punjab	0.411	2	0.475	2	0.537	2
Rajasthan	0.256	12	0.347	11	0.424	9
Tamil Nadu	0.343	7	0.466	3	0.531	3
Uttar Pradesh	0.255	13	0.314	14	0.388	13
West Bengal	0.305	8	0.404	8	0.472	8
All-India	0.302		0.381		0.472	

Source: National Human Development Report 2001, National Planning Commission, GOI.

However, within the State there are inter-district variations and in 19 districts HDI is below the State average.

Literacy and Education:

Education creates positive externality. Subsidies can help to set right the under-consumption of education with positive externalities. The components of education usually are distinguished as consumption i.e. enjoyment of fuller life permitted by education and as direct investment with the gains accruing *'internally'* in the form of increased earnings profiles to the educated persons. It is also an investment in the functioning of the economic and social system at large. These latter gains accruing *'externally'* not only to those in whom the educational input is invested but also other members of the community. In view of the above the Government place education high on the development agenda.



Literacy:

Literacy rate of the State had increased from 20.8 per cent in 1951 to 73.5 per cent in 2001. Despite the fact that the literacy rate has significantly increased over a period, there has been a wide gap between male and female literacy. Besides, there are rural and urban differences in the literacy attainments. There is no denying the fact that the literacy rate for SC/ST population, especially, women folk, is deplorably the lowest. The feminisation of poverty among this vulnerable population is a stark reality. It may be noted that according to 2001 Population Census, in 43 Blocks out of the total 385 blocks in Tamil Nadu there is a gap of more than 20 per cent between male and female literacy.

The Government has been establishing a large number of primary schools in order to cope with the needs of increasing number of children in the school-going age. There were 32242 primary schools and 6825 middle schools in the State in 2003-04. In 2004-05, it had increased to 33470 and 7111 respectively. In primary schools and middle schools 42.92 lakh and 22.37 lakh children were enrolled respectively in 2003-04. During 2004-05, 61.27 lakhs in primary and 35.24lakhs in middle schools were enrolled. Around 1.21 lakh teachers were in primary schools and 0.60 lakh teachers in middle schools.

Table - 3: No. of Schools, Enrolment and Teachers in Tamil Nadu - 2003-04

Type	No. of Schools	Enrolment in (000s)			No. of Teachers		
		Boys	Girls	Total	Men	Women	Total
Primary	32242	2199	2093	4292	44493	76743	121236
Middle	6825	1142	1095	2237	25935	34144	60079

Source: Policy Note on Education, 2004-05.

Bridging the literacy divide between males and females is a key Millennium Development goal. It has a policy implication to focus on the effective execution of the Sarva Shiksha Abhiyan across the districts.

Primary Education:

The Government's goal is *Education For All*. The Indian Constitution stipulates in the Article 45, "*the State shall provide within a period of 10 years from the commencement of this Constitution for free and compulsory education for all children until they complete the age of 14 years*". It also calls for the "*State within its economic capacity to make effective provision for education*". The latest 86th Constitutional Amendment has made education a fundamental right. In primary education universal access, enrolment, retention, achievement and community participation and pro-active institutional changes are the basic ingredients to achieve the goal of Education For All.

The State Government had already achieved the goal of establishing in primary school in all habitations within the radius of 1 km in the State and upper primary school within the radius of 3 km.. Government of India inaugurated the District Primary Education Programme in Dharmapuri, Thiruvannamalai, Cuddalore, Villupuram, Perambalur, Pudukkottai and Ramanathapuram in 1994-95 where female literacy was less than the State average. Following the 86th Constitutional Amendment, the Sarva Siksha Abhiyan (SSA) came in to operation sponsored by Government of India for universalisation of elementary education in the age group 6 - 14 years.

The SSA is an omnibus intervention having several components. Under this scheme provision is made for infrastructure facilities such as construction of class rooms, provision of toilets, drinking water, electrification, maintenance, opening of elementary and middle

schools, appointment of teachers, grants-in-aid to teachers to procure teaching aids, etc. besides capacity-building.

Box - 1
Salient Features of SSA

The SSA seeks to achieve universal enrolment by the year 2003 and completion of 5 years of primary schooling by the end of Tenth Five Year Plan period (2007). The objectives of Sarva Siksha Abhiyan are:

- All children in school, Education Guarantee Centre, Alternate School or 'Back to School camp' by 2003;
- All children to complete five years of primary schooling by 2007;
- All children to complete eight years of elementary schooling by 2010;
- Capacity-building and improvement in infrastructural facilities;
- Focus on quality elementary education with emphasis on education for life;
- To bridge all gender and social category gaps at primary stage by 2007 and at elementary education level by 2010 and
- Universal retention by 2010.

Teacher-Pupil Ratio:

The required teacher-pupil ratio of 1:40 was achieved at the primary level only. In case of upper primary, the ratio was 1:49 during 2003-04 and 1:43 in 2004-05.

Table - 4: Teacher-Pupil Ratio

Year	Primary	Upper Primary
2001-02	36	46
2002-03	41	42
2003-04	39	49
2004-05	36	43

Source: Policy Note on School Education.

Incidence of Drop-out:

Drop out at the primary school level cannot be affordable because discontinuity in the middle school will result in higher opportunity cost and affect future earning profiles of the individuals. The principal causative factor for drop out is general poverty of the households.

Drop out rate was of the order of 13.85 per cent in 2002-03: 12.23 per cent for boys and 15.53 per cent for girls. In the middle school the drop out rate is at 32.12 per cent - 34.30 % for boys and 30% for girls. Implementation of various welfare programmes like free education, implementation of Noon Meal Scheme, Integrated Child Development Scheme and SSA, free supply of note books and text books, uniforms, free bus pass attributed to the decline in drop out. The falling trend in drop out rates at primary and upper primary are as follows:

Table - 5: Drop-out Rates in Tamil Nadu (in %)

Year	Primary Stage			Middle Stage		
	Boys	Girls	Total	Boys	Girls	Total
1999-2000	12.93	16.07	14.41	36.03	34.74	35.43
2000-2001	12.88	16.03	14.40	36.00	35.15	35.59
2001-2002	12.73	15.95	14.31	35.46	34.53	35.07
2002-2003	12.23	15.50	13.85	34.30	29.99	32.10

Source: Policy Note on Education 2003-04.

At the National level, the incidence of drop out is relatively higher than that of Tamil Nadu. It is really a gray area, which needs to be addressed. After a lapse of four years of

adoption of "*mission mode*" approach to universalise primary education through SSA, only 47 of the 100 children enrolled in Class I reach Class VIII 53.45 per cent for girls and 52.28 per cent for boys. This puts the drop out at 52.79 per cent. At the primary level it is at 34 per cent - 32.72 per cent for girls and 35.85 per cent for boys.

Higher Education:

It may be noted that the workforce needs to be significantly skilled and of high quality for accommodating them in skilled jobs. Higher education is playing a vital role in producing quality labour force in the State. Expansion of higher education is a powerful force for change.

Total number of high schools in the State at 4551 in 1999-2000 rose to 5004 in 2004-05. Management-wise there are 1962 Government High Schools, 1861 Matriculation High Schools and 646 Aided Schools, etc. Total enrolment was at 19.04 lakhs in 2003-04. Of which in Government schools the enrolment was 9.15 lakhs, followed by 4.97 lakh students in Matriculation High Schools, 3.50 lakh students in Aided Schools. There were 68212 teachers in all high schools in 2003-04. Students are being imparted computer literacy in high schools, to start with. In order to expose the students to perceive science in Tamil language, a scheme known as *Scientific Tamil* is implemented from 6th Standard to Plus Two classes. This scheme is making much headway in both rural and urban areas.

Higher Secondary Education:

Number of higher secondary schools in the State had increased from 3292 in 1999-00 to 4230 in 2004-05. Management-wise, out of 45.34 lakh students in 2003-04, Government schools enrolled 17.72 lakh students, aided-schools 13.80 lakh students and matriculation higher secondary schools 10.61 lakh students. With a view to making students computer literate, to take advantage of the emerging technology, the computer education is being imparted to students at school level.

Collegiate Education:

There are 13 Universities and 503 colleges functioning under the administrative control of the Directorate of Collegiate Education. Of which 444 are Arts and Science Colleges. Aided Colleges and Self Financing Colleges are 162 and 274 respectively. These institutions had a student strength of 5.25 lakhs. The National Assessment and Accreditation Council had so far given accreditation to 134 Arts and Science Colleges. The new job-oriented colleges (41 new UG courses and 68 Post Graduate courses) had been started on self-financing basis in the affiliated colleges of the Universities to enhance the employment opportunities.

For empowering women socially and economically, special coaching is being provided besides offering free coaching to women students appearing for IAS / IPS examinations. To encourage students studying in Tamil medium classes a stipend of Rs.400/- is being paid. During 2003-04, 31812 students were benefited. Under Periyar EVR Nagammai Scheme, women students irrespective of their caste, creed and community whose parental income does not exceed Rs.24000 per annum are exempted from payment of tuition fees in undergraduate course. In 2003-04 a total of 8463 women students were benefited involving an expenditure of Rs.65 lakhs.

Technical Education:

The base for technical education has contributed to the strident growth of the service sector, availability of skilled workers and technical know-how, which are much indispensable for a growing economy like Tamil Nadu. Tamil Nadu is imparting technical education through a network of 253 Engineering Colleges including 12 deemed Universities. There are 209 Polytechnic Colleges in the State. Annual student intake of all Engineering Colleges put together was 82000 and that of polytechnics was 58089. To improve the quality of technical education, the State has launched Technical Education Quality Improvement Programme (TEQIP) with a total outlay of Rs.300.00 crores. The World Bank shoulders the entire cost of the programme. With a view to improving the quality of education at the higher level the National Assessment and Accreditation Council (NAAC) has been making assessment of the quality of education imparted by the educational institutions. The Government acts as a facilitator to ensure that Tamil Nadu is able to leverage its investment in technical education for economic growth.

Tamil Nadu Science and Technology Centre:

The major objective of this Centre is to popularise science and technology among the people in general and students in particular, in urban and rural areas in the State. During the year 2003-04, the Government sanctioned a sum of Rs.145.41 lakhs to the Centre towards recurring and non-recurring expenditure.

Health and Nutrition:

Tamil Nadu's attainments in the Health and Nutrition Sectors is widely recognised and acclaimed. The State has built strong health care infrastructure and has effectively been implementing multifarious health and nutrition schemes. It is visible that accomplishments in the primary, secondary and tertiary health care delivery system is worthy of appreciation because Government put the public health care in fast track with *mission mode approach*. The State over the years showcased appreciable improvements in health indicators viz., Life Expectancy at Birth, IMR, Birth Rate and Death Rate. Table below highlights the fact that where Tamil Nadu is in an enviable position in terms of human development indicators.

Table - 6: Select Indicators of Human Development for Major States

State	Life expectancy at birth (2001-06)		Infant Mortality Rate (per 1000 live births)(2002)			Birth rate (per 1000 pop.) 2002	Death rate (per 1000 pop.) 2002
	Male	Female	Male	Female	Total		
1. Andhra Pradesh	62.79	65.00	64	60	62	20.7	8.1
2. Assam	58.96	60.87	70	71	70	26.6	9.2
3. Bihar	65.66	64.79	56	66	61	30.9	7.9
4. Gujarat	63.12	64.10	55	66	60	24.7	7.7
5. Haryana	64.64	69.30	54	73	62	26.6	7.1
6. Karnataka	62.43	66.44	56	53	55	22.1	7.2
7. Kerala	71.67	75.00	9	12	10	16.9	6.4
8. Madhya Pradesh	59.19	58.01	81	88	85	30.4	9.8
9. Maharashtra	66.75	69.76	48	42	45	20.3	7.3
10. Orissa	60.05	59.71	95	79	87	23.2	9.8
11. Punjab	69.78	72.00	38	66	51	20.8	7.1
12. Rajasthan	62.17	62.80	75	80	78	30.6	7.7
13. Tamil Nadu	67.00	69.75	46	43	44	18.5	7.7
14. Uttar Pradesh	63.54	64.09	76	84	80	31.6	9.7
15. West Bengal	66.08	69.34	53	45	49	20.5	6.7
India	63.87	66.91	62	65	63	25.0	8.1

Source: Sample Registration System, Registrar General, Government of India.

As borne out in the table, Tamil Nadu ranks third in terms of Life Expectancy at Birth. The State has second lowest IMR, and Birth Rate and seventh lowest Death Rate. The State is catching up with the accomplishments of Kerala in terms of health parameters through concerted efforts, dispatch and efficiency.

Box -2
Millennium Health Development Goals

The United Nations Development Project (UNDP) has brought out the Human Development Report, 2003 with focus on Millennium Development Goals (MDGs) set for 2015 and presents an Action Plan for reaching the goals. The goals relating to health sector are as follows:

- Reduce infant and child mortality rates by two-thirds between 1990 and 2015.
- Reduce maternal mortality ratios by three-quarters between 1990 and 2015.
- Provide access for all who need reproductive health service by 2015.
- Reverse the spread of HIV / AIDS and halt it by 2015.
- Check the incidence of malaria and other major diseases and halt it by 2015.

Goals in Health Sector:

Consistent with the Millennium Development Goals, the National Health Policy 2002 have also been formulated, as indicated below.

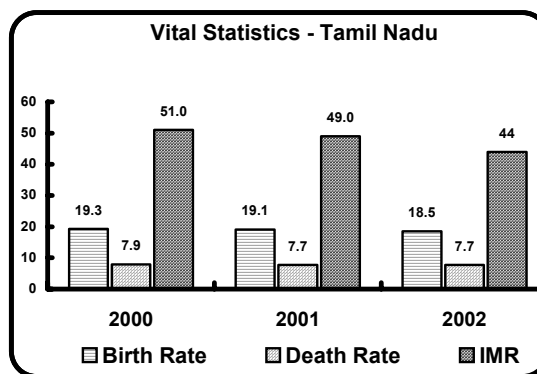
<u>Disease</u>	<u>By Year</u>
➤ Eradicate Polio totally	2005
➤ Eliminate Leprosy totally	2005
➤ Eliminate Kala Azar totally	2010
➤ Eliminate Lymphatic Filariasis totally	2015
➤ Achieve zero level growth of HIV/AIDS	2007
➤ Reduce mortality by 50% on account of TB, malaria and other vector and water borne diseases	2010
➤ Reduce prevalence of blindness to 0.5%	2010
➤ Reduce IMR to 30/1000 and MMR to 100 / lakh	2010

Medical and Rural Health Infrastructure:

There are 25 District headquarters hospitals, 161 taluk hospitals, 79 non-taluk hospitals, 12 dispensaries, 11 mobile Medical services, 7 women children hospitals, 5 TB hospitals, 2 TB clinics and 1 leprosy rehabilitation promotion unit. In addition to this infrastructure, there are 1411 Primary Health Centres and 8682 Health Sub-Centres. These Institutions are catering to the primary, secondary and tertiary health care needs of the people. The norms of establishing one Primary Health Centre for a population of 30000 in plains and 200000 population in hills has already been realised. For augmenting the medical resources, there are twelve Medical Colleges, one Dental College, two Physiotherapy Colleges and two Nursing Colleges functioning in the State. Total MBBS students' strength is 1255, B.D.S. 100, Diploma in Nursing 745, etc.

Family Welfare:

The family welfare programme is implemented as a people's programme involving community at large to improve mother and child health services. The State recorded a second lowest decadal growth rate of 1.17 per cent between 1991 and 2001. The population of Tamil Nadu at 6.21 crores in 2001 is estimated as 6.5 crores in 2005. The demographic goals fixed to be achieved by the end of the Tenth Five Year Plan are -



- Infant Mortality Rate 30/1000 live births
- Birth Rate 15/1000 population
- MMR <1/1000 live births
- Total Fertility Rate 1.5
- Couple protection rate 65 per cent
- Reduction of Higher order births 10 per cent per annum
- Male participation in contraception 10 per cent per annum

Incidence of Major Diseases:

Though the Government has strengthened the primary, secondary and tertiary health care services in the State some of the disease are rampant in the State. They are HIV, Tuberculosis and Hepatitis B. Despite this, the State has been successful in eradicating leprosy, malaria, blindness, etc. to a great extent. The implementation of Reproductive and Child Health Programme has made significant progress in the State. The scheme covers both pregnant women and children. The second phase of the Reproductive and Child Health Project will be implemented from April 1, 2005. The first phase the Scheme was executed in Madurai and Theni districts. It will be extended to other districts in the forthcoming years.

Immunisation Programme:

The Government's goal is that the State should be polio-free. There are vaccines against Hepatitis B. The State is very conscious in eradicating polio. Every year about 75 lakh children were administered. Polio drops in three phases. All the children in the targeted age group had fully been covered under this programme in 2003-04. The MMR jab (Measles, Mumps and Rubella), a vaccine is being given to small children to prevent these three diseases.

Nutrition:

The greatest psychological need and growth occur in early years and 80 per cent of the eventual brain weight is reached by age two. During this period, children have to get the normative body weight and health. There are close linkages between nutrition, health, education and productivity. Mal-nutrition and under nutrition are one of the causes for high incidence of mortality and morbidity in the State. Protein deficiency is the major reason for occurrence of endemic, pandemic and epidemic diseases. Human resource development is partly dependent on sound health and nutrition. The major benefits of wholesome and sound nutrition are saving medical cost, reducing productivity losses, extending working efforts, etc.

Towards improving the nutritional status of the children the Tamil Nadu Integrated Nutrition Project Phase-I (1982-89) was implemented with the World Bank Aided fund. In July 1982, the State launched Noon Meal Programme in Tamil Nadu. The coverage of beneficiaries under the Noon Meal Scheme is found wide. Tamil Nadu Integrated Nutrition Project Phase-II was culminated in December 1997. At present, the General ICDS and World Bank assisted ICDS project Phase III have been implemented in the State. It is worthy of note that the Centrally-sponsored Mid-day-Meal Scheme had been modeled on the Tamil Nadu's initiative. This outreach programme aims to over the entire State in a phased manner. Table below highlights the aspects such as number of centres and category of beneficiaries under the various nutrition programmes.

Table - 7 : No. of Centres and Beneficiaries under the Noon Meal Scheme and ICDS

Scheme	No. of Centres	No. of beneficiaries		
		Children	Mother & OAP	Total
I. Noon Meals				
I. Child Welfare NMP Centres				
1. Integrated Child Development Services Scheme (CWCs)	22779	420658	133510 15983 (OAP)	570151
2. ICDS III (CWCs)	19500	535516	312340 (mothers) 47455 (OAP)	895311
II. School NMP Centres				
3. PTMGR NMP Centres (Rural)	39297	5821202	-	5821202
4. PTMGR NMP School Centres (U)	2082	475607	-	475607
Total (I and II)	83658	7252983	509288	7762271
2. Supplementary feeding				
1. ICDS (CWCs)	22779	162238	133510	295748
2. ICDS III (CNCs)	19500	296223	312340	608563

Source: Policy Note for Social Welfare Department, 2003-04

Incidence of Poverty:

Inequalities in distribution of wealth and income are one of the causes of absolute poverty i.e. a situation where population is, at most able to meet only its bare subsistence essentials of food, clothing and shelter to maintain minimum levels of living. The State is determined to bridge the *poverty gap* - the sum of the difference between poverty line and actual income levels of all people living below that line and to avoid falling into *poverty trap* - a bad equilibrium for a family, community or nation, involving a vicious circle in which poverty and underemployment breed more poverty and underemployment.

Vicious circle of poverty impinges on the human welfare and social standing besides being a real eyesore to a knowledge society. Poverty is a damning indictment of modern society. Unemployment and poverty are all part of the same economic syndrome. Gainful and productive employment on a sustainable basis is inextricably bound up with mounting economic problems and increased purchasing power of the poor. In order to provide gainful employment, Government of India and the State Government had initiated a host of wage and self-employment poverty alleviation programmes during the successive Five Year Plan periods. Thanks to Government's initiatives to combat unemployment and poverty, the incidence of poverty has been on the decline over a time. It was made possible through effective implementation of these programmes. It is indeed a remarkable achievement. The extent of the decline in poverty quotient through time is elucidated below.

**Table - 8 : Percentage of Population below Poverty Line in Tamil Nadu -
1983 and 1999-2000**

Region	1983	1999-2000
Rural	53.99	20.55
Urban	46.96	22.11
Combined	51.66	21.12

*Source: National Human Development Report 2001, Planning Commission,
Government of India, New Delhi, March 2002.*

In 1983 the ratio of the poor was higher in rural areas than in the urban areas. In 1999-2000 this trend got reversed because of unchecked exodus of negative economic migration from rural to urban areas for want of works in rural areas. If job opportunities are created sufficiently in rural areas itself, the migration from rural to urban could be arrested. It is imperative that the commodity - producing sectors viz., agriculture and industry, coupled with efficacious implementation of poverty alleviation programmes with synergy and convergence have to perform well to realise a steadily falling poverty ratio in the State in future. The proposed Employment Guarantee Act, 2004 enacted by the Government of India holds the key to the reduction poverty quotient.

Housing and Water Supply:

The State has taken effective steps to achieve a notable progress in housing sector by framing suitable policies and programmes both in rural and urban areas. For the attainment of 'providing a house for each family' various schemes have been implemented through a network of Tamil Nadu Housing Board, Cooperative Housing Societies, Tamil Nadu Cooperative Housing Federation and Tamil Nadu Slum Clearance Board.

The Tamil Nadu Housing Board so far has developed 3.94 lakh housing units to cater to the housing needs of the different income groups such as Economically Weaker Section, Lower Income group, Middle Income Group and Higher Income Group. It reserves 18 per cent of its schemes to SCs and 1 per cent to STs. For improving the urban slum area in the State, Tamil Nadu Slum Clearance Board is implementing various schemes. The TNSCB works with the aim of (i) clearing the slums in congested unhygienic urban areas and to construct tenements; (ii) to identify slums and provide basic facilities for ideal habitation and (iii) to construct tenements under rehabilitation and resettlement programme.

In providing a house for each family, Tamil Nadu Cooperative Societies also play an important role. The network of this society numbering 1253 comprises 196 Taluk Cooperative Housing Societies, 1057 Urban Cooperative Housing Societies and a State level Tamil Nadu Cooperative Housing Federation Ltd., Chennai. Various Housing Schemes implemented and houses constructed through this cooperative societies (as on 31.12.2004) are (i) Rural Housing Scheme for Economically Weaker Sections (6.27 lakhs); (ii) Special housing scheme for economically weaker section in urban areas (0.28 lakhs); (iii) LIG, MIG schemes in rural areas (0.89 lakhs); (iv) urban housing schemes (3.11 lakhs); (v) Valmiki Ambedkar Awaas Yojana Scheme (0.07 lakhs) and (vi) Repairs and renewal of existing houses (0.59 lakhs). The cooperative society is proposed to finance 6000 new houses for an outlay of Rs.100 crores during 2005-06.

Housing Requirements:

The land / man ratio of the State at 0.23 hectare / person in 1991 has reduced to 0.20 in 2001 which is likely to go down to 0.17 by 2011. This decline indicates the urgent need to

maximize the land. By the year 2010 total area needed for housing would be 91000 hectares. It has also been assessed that for every million addition of population, about 14000 hectares of land is needed for housing and concomitant uses. On the other hand, housing demand for 2011 is estimated as 175.9 lakh units by the Society for Developmental Studies, New Delhi in its comprehensive study 'Housing Status, Strategy and Action Plan for Tamil Nadu' in 1995.

The growth of housing stock during the period 1981-91 in Tamil Nadu has been higher (24.3%) than the households (22.0%). This has led to an increase in per capita living space as is reflected in the fall in the number of households per dwelling unit from 1.03 in 1981 to 1.01 in 1991 which is lower than that of all India (1.03). This is indicative of a marked improvement in the housing situation of the State. The ratio for the urban areas at 1.04 in 1981 and 1.02 in 1991 is higher than that in rural areas which fact points out the migration of male members to urban areas for better economic opportunities. This is once again confirmed by another fact that the persons per dwelling unit in urban areas (4.94) are higher than that in rural areas (4.39).

Water Supply:

Supply of safe drinking water in both rural and urban areas is aimed at improving the health status of the people. On the demand side, the increasing population places severe strain on the availability of water. Supply of drinking water is conditioned by quantum of rainfall, quality of water and availability of aquifers.

The demand for drinking water for the rural and urban population of the State is 1410 MCM of which 987 MCM is met by ground water and remaining 423 MCM by surface water resources. The ultimate demand for the year 2020 has been assessed as 2170 MCM.

In the successive plan periods, the water supply sector received high priority as reflected by the impressive coverage achieved. The important objective of the State during the X plan period is water security. Hence, provision of safe drinking water to the people is the essential factor. The areas to be covered under this are rural and urban areas besides Chennai City.

The State has implemented a number of schemes and programmes for rural and urban water supply. Water supply schemes in the rural areas are implemented on full grant basis under State aided Minimum Needs Programme and Centrally Sponsored Accelerated Rural Water Supply Programme. During 2004-05 a total of 6500 rural habitations were benefited. Under special component plan, supplying water to benefit 2000 SC/ST habitations have been taken up with an outlay of Rs.137.00 crores. Swajaldhara Programme was taken up with an estimated cost of Rs.28.35 crores. About 520-recharge structure have been taken up with financial assistance from NABARD at a cost of Rs.15.76 crores.

Besides all these, combined water supply schemes numbering 40 to benefit urban and rural areas have been completed.

Rain Water Harvesting:

Uncertainty in precipitation and depletion of ground water has accelerated the search for solutions. The Government enacted legislation in 2003 to make rain water harvesting mandatory. This is a unique intervention that ensured that not only government departments, all segments of society, private and the civil society, the Panchayats put in place water

harvesting structures across the State both in rural and urban areas. Given the erratic nature of precipitation and rapidly declining ground water table, Government in a major policy initiative launched a major campaign for providing RWH structures across the State. The programme was executed not only by the Government agencies but by involving various stakeholders viz. private sector, NGO. etc. Rain remains a gamble in the monsoon. When drought occurs, the shortage of water for drinking and irrigation becomes acute. In order to overcome this recurring problem, the Government has been exhorting people to construct rainwater-harvesting structure in each house both in urban and rural areas. This technique helps to retain moisture and replenish the aquifers. In this regard, the Tamil Nadu Panchayat Building Rules were amended obligating the people to construct RWHS in their houses. It is made a pre-condition to get the approval of the building plan.

In Tamil Nadu up to 31.3.2005 about 67 lakh Roof Top Rain Water Harvesting Structures and 1.36 lakh Surface Level Rain Water Structures were created in the shortest possible time. It has served the twin purpose of sensitizing people about the importance of the concept besides harvesting precious rain water to augment water recharge and storage. Suggestion have also been made that the Kudimaramathu system may be revived in each village for creating ooranis and small ponds so that the severity of shortage of drinking water can be mitigated in the event of failure of monsoon.