

MONOGRAPH 17/2012

Monitorable Indicators and Performance: Tamil Nadu

K. R. Shanmugam



MADRAS SCHOOL OF ECONOMICS
Gandhi Mandapam Road
Chennai 600 025
India

January 2012

Monitorable Indicators and Performance: Tamil Nadu

K. R. Shanmugam

Professor, Madras School of Economics
e.mail: shanmugam@mse.ac.in



MADRAS SCHOOL OF ECONOMICS
Gandhi Mandapam Road
Chennai 600 025
India

MONOGRAPH 17/2012

January 2012

Rs.200/-

**MADRAS SCHOOL OF ECONOMICS
Gandhi Mandapam Road
Chennai 600 025
India**

Phone: 2230 0304/ 2230 0307/2235 2157

Fax : 2235 4847 /2235 2155

Email : info@mse.ac.in

Website: www.mse.ac.in

Acknowledgements

I am thankful to the Planning Commission, Government of India for entrusting this study to the Madras School of Economics. I have considerably benefited from discussions with Dr. D. K. Srivastava, Director, Madras School of Economics. I am thankful to him.

I am grateful to Dr. K. Arulmozhi, Principal Secretary/Member Secretary, State Planning Commission who is the anchor person for this study, for his constant support in completing this study.

I am also thankful to various Principal Secretaries to Government of Tamil Nadu for their support.

I thank Dr. C. Bhujanga Rao, Visiting Associate Professor, Madras School of Economics for going through the entire manuscript and providing valuable suggestions.

Finally I thank Ms. Lakshmi Srinivasan, the research assistant, for obtaining data from various Government Departments and Ms. Sudha of Madras School of Economics for her help in preparing the manuscript.

K.R. Shanmugam

Executive Summary

This study aims to provide a mid term appraisal of the Tamil Nadu of the Eleventh Five Year Plan. For this purpose, it reviews the trends in the following state specific monitorable indicators since Ninth Plan period: GDP growth rate, agricultural growth rate, new work opportunities, poverty ratio, drop out rate in elementary schools, literacy rate, gender gap in literacy rate, infant mortality rate, maternal mortality ratio, total fertility rate, child malnutrition, anemia among women and girls, and sex-ratio.

Tamil Nadu Economy: an Overview

1. In Tamil Nadu, the service sector is the main driver of the overall economic growth of the state and among the services the sub - sector comprising the trade, hotels and restaurants is the dominant one, followed by the banking and insurance, and real estates.
2. Although its share has declined continuously over the years, the agriculture grew at an average rate of 3.7 percent during 1997-98 to 2006-07. The first two years of the Eleventh Plan period witnessed a negative growth in agriculture. Other sectors too recorded a decelerated growth in the first two years of the 11th Plan, compared to previous years, which might be because of the global economic slowdown.
3. Given the slow growth of key sectors during the last two years, the state is not likely to meet the target growth of 9 percent during the 11th Plan years.
4. Since agriculture continues to be a dominant sector in providing livelihood to about 50 percent of the population, the growth in this sector is vital. Also, this sector has backward as well as forward linkages with other sectors of the economy.
5. There has been a continuous decline in net sown area. Rice is the dominant crop, but rice productivity is low in many poor districts in Tamil Nadu.
6. The real growth of agriculture is likely to remain relatively low as compared to the other sectors. This will lead to further migration of people away from agriculture to non-agriculture activities and away from rural to urban areas. Growth in employment in primary sector has been negative in recent years while in the secondary and the tertiary sector, growth has been positive and relatively high.
7. The basic challenge in the context of the changing structure of the economy and employment is to create the capacity to absorb the population migrating out of agriculture into industry and services with proper training and skill development.

At the same time, productivity in agriculture should not be allowed to decline. This will require considerable additional investment in agriculture. The government will have to play a key role, as the returns will not be adequate to attract large inflows of private capital into agriculture.

8. Given the fact that inputs like water and land are scarce and there has been no technology breakthrough since the Green revolution, the only alternative is to improve the efficiency/productivity of agriculture (i.e., potential utilization of existing resource).
9. Tamil Nadu ranks seventh in terms of per capita GSDP (2007-08). The inter district distribution of income is very skewed. Virudhunagar, Coimbatore and Kanniyakumari are the top three districts in terms of per capita income. Perambalur, Villupuram and Tiruvannamalai are the poorest districts.
10. Most of the poor districts are the major rice producers of the state with below the state average rice productivity. Although Tamil Nadu has the highest credit deposit (CD) ratio among the states in the country, the CD ratio is low in many of the poorer districts.
11. Tamil Nadu's relative position (fourth rank) in terms of competitiveness index shows considerable advantage. But its market size as indicated by its share of GSDP is falling over time.
12. According to the NSS data based estimates, during 1999-00 to 2006-07 the share of unorganised sector employment increased from 89.2 percent to 92.1 percent and this increase was mainly due to the increase in employment in unregistered manufacturing, trade, hotels, and construction firms.
13. The employment projections indicate that the state is able to create 1.474 million additional jobs during the 11th Plan period against the plan target of 2 million. More policy attention is required in this regard.
14. Tamil Nadu has done comparatively better than most other states in reducing the combined poverty. The overall head count ratio at 22.5 in 2004-05 is nearly 5 percentage points below the all-India figure at 27.5. In 2004-05, nearly 47.5 percent of total poor are urban poor in Tamil Nadu. Despite the progress achieved in reducing income poverty, hunger poverty/calorie deficiency remains a major problem.
15. Various steps have been taken by the Government to combat poverty: (i) waive off cooperative farm loans of Rs. 7000 crore; (ii) 50 percent insurance premium subsidy under the crop insurance scheme in order to compensate farmers

affected by natural calamities, (iii) providing rice at one rupee per kg under PDS and essential food items like palm oil at subsidized prices through fair price shops, and providing ten cooking condiments for Rs. 50. Our projection indicates that Tamil Nadu is well on track to cut poverty.

Status of Education in Tamil Nadu

1. Tamil Nadu fares relatively well in terms of key education indicators. It ranks first in terms of gross enrolment ratio at middle schools, third in terms of education development index for primary and overall and female literacy, fifth in terms of composite index for elementary education, and sixth in terms of gross enrolment at primary level.
2. The literacy in Tamil Nadu is likely to be 87.5 percent at the end of the 11th Plan, which will be slightly lower than the targeted rate of 90 percent in 2012. However, the gender gap in literacy will reduce to 10 percent level at the end of the plan period.
3. Drop-out rate at primary level is 1.02 and at upper primary is 1.88. The state is likely to meet the target of zero level at the elementary level.
4. The major challenge before secondary education is that of meeting the surge in demand due to success of SSA. The new scheme called "Scheme for Universalisation of Access to Secondary Education (SUCCESS)" launched will help in this regard.
5. Regarding the quality of education, Chennai, Madurai and Ramanathapuram districts have more than 50 percent of their schools with B and C grades. About more than 40 percent of schools in Cuddalore, Erode, Kancheepuram, Kanyakumari, Pudukkottai, and Trichirappalli have either B or C Grades. They need to improve.
6. Inter district differences still exist in literacy, female literacy etc. For instances, Kanniyakumari district achieved the highest literacy of 88.1 percent while Dharmapuri obtained the lowest rate of 59.2 percent. In 12 districts, the gender gap is more than 20 percent.

Performance of Health Sector

1. Tamil Nadu compares well with the average performance of the country in terms of health indicators like crude birth rate, crude death rate, total fertility rate and infant mortality rate, child (0-3 years) mal nutrition, and life expectancy.
2. The state expenditure on health and family welfare as percent of GSDP declined continuously up to end of 10th Plan and then it started increasing. But it is still lower than its level at the beginning of 9th Plan. However, expenditure on social

security welfare and nutrition in Tamil Nadu relative to GSDP has been continuously increasing from the beginning of 10th Plan period.

3. Female population accounted for 49.7 per cent. The sex ratio in Tamil Nadu will seem to exceed the target of 950 by the year 2012.
4. Although the state is well on-track in reducing birth rate by end of 11th Plan, it is not likely to meet its targets relating to death rate, infant mortality rate and maternal mortality rate if the present trends continue.
5. The target rate of child (0-3) malnutrition is 16.6 percent. But the state's child malnutrition is likely to be 30.
6. Projections indicate that there will be 50 percent of women who are anemic in 2012 as against the target of 26.7 percent in Tamil Nadu.
7. Target figures of male life expectancy and female expectancy are 69 and 72 years respectively. The projected values are likely to be 66 years and 70 years respectively in 2012.
8. There are considerable inter-district differences in Tamil Nadu in respect of many health indicators. In the case of life expectancy, the five most deficient districts are: Theni, Dindigul, Virudhunagar, Ramanathapuram, Namakkal, and Erode. In Thanjavur, Vellore, Salem, Coimbatore, Trichirapalli and Tirunelveli districts, the infant deaths are more than 500. In Thiruvarur, Villupuram and Krishnagiri, more than 50 percent of children (0-3 years) are malnourished. As regards the provision of safe drinking water, the neediest districts are: Ramanathapuram, Kanniyakumari, Thiruvallur, the Nilgiris and Sivagangai. In terms of electricity connectivity the most deficient districts are: Thiruvarur, Nagapattinam, Pudukkottai, Ariyalur, and Ramanathapuram.
9. The index of deficiency values for literacy, life expectancy, per capita income, enrolment, etc. indicate that while Government has been successful in spreading education, better health services across districts, wide differences still remain in economic activities reflected by the per capita income relative to the state average.
10. Since target rates relating to many indicators including the infant mortality and total fertility rate set by the state are higher than respective national target rates, the state is likely to meet the target relating to infant mortality rate and total fertility rate by end of the Plan period. Therefore, malnutrition among children and women is the major area of concern. The government has already taken various initiatives to eradicate severe malnutrition. Malnourished children (6-24 months) are given additional weaning food of 50 kms once in a week on take-

home-ration basis. 2 grams of drumstick leaf powder/curry leaf powder in the nutritious meal for 5 days a week has been included in addition to the vegetables already provided in the nutrition meal. From 2007-08 onwards, it has been providing one boiled egg per week to all the integrated child development service (ICDS) centers for the children aged 1-2 years and 3 eggs to children aged 2-15 under Nutrition Noon Meal programme.

CONTENTS

| | | |
|--------------------|---|----|
| Acknowledgements | iii | |
| Executive Summary | iv | |
| List of Tables | xi | |
| List of Charts | xiv | |
| List of Appendices | xiv | |
| Chapter 1 | Tamil Nadu Economy: An Overview | 1 |
| 1.1 | Monitorable Indicators | |
| 1.2 | Eleventh Five Year Plan Targets and Outlays: Tamil Nadu | |
| 1.3 | Tamil Nadu: Growth and Structural Changes | |
| 1.4 | Regional Development in Tamil Nadu | |
| 1.5 | Employment and New Job Opportunities | |
| 1.6 | Poverty in Tamil Nadu | |
| 1.7 | Agriculture: Key Issues | |
| 1.8 | Agriculture: Flagship Programmes | |
| 1.9 | Summary | |
| Chapter 2 | Current Status of Education in Tamil Nadu | 63 |
| 2.1 | Eleventh Plan Targets Relating to Education | |
| 2.2 | Financing of Education | |
| 2.3 | Literacy Rate | |
| 2.4 | Elementary Education | |
| 2.5 | High and Higher Secondary School Education | |
| 2.6 | Quality of School Education | |
| 2.7 | Educational Development Index | |
| 2.8 | A Note on Higher Education in Tamil Nadu | |
| 2.9 | Summary | |

| | | |
|------------------|--|------------|
| Chapter 3 | Performance of Health Sector in Tamil Nadu | 87 |
| 3.1 | Eleventh Plan Targets Relating to Health | |
| 3.2 | Financing of Medical and Public Health | |
| 3.3 | Demographic Indicators | |
| 3.4 | Child Malnutrition | |
| 3.5 | Maternal Mortality Ratio | |
| 3.6 | Life Expectancy | |
| 3.7 | Status of Rural and Urban Water Supply | |
| 3.8 | State's Recent Efforts in Improving Health and Nutrition | |
| 3.9 | Summary | |
| Chapter 4 | Summary and Conclusions | 105 |
| 4.1 | Summary of Findings | |
| 4.2 | Concluding Remarks | |
| References | | 111 |
| Appendix Tables | | 115 |

LIST OF TABLES

Chapter 1

| | |
|------------|---|
| Table 1.1 | The 27 National Targets |
| Table 1.2 | Monitorable Indicators and Eleventh Plan Targets: Tamil Nadu |
| Table 1.3 | Tenth and Eleventh Plan Outlays |
| Table 1.4 | Annual Growth Rates: GSDP at Constant (1999-00) Prices |
| Table 1.5 | Structural Changes in Tamil Nadu Economy: Share of GSDP at 1999-00 Prices |
| Table 1.6 | Structure of GSDP in Alternative Scenarios: Shares up to 2017-18 |
| Table 1.7 | Composition of Tertiary Sector: Percentage Shares |
| Table 1.8 | District Wise Average Shares of GDDP and Growth (at 1999-00 prices) during the Tenth Plan Period (2002-03 to 2006-07) |
| Table 1.9 | Comparative Growth of Per Capita Income in Tamil Nadu and All India |
| Table 1.10 | Per Capita GSDP of Major States (2007-08) at 1999-00 prices |
| Table 1.11 | Tamil Nadu's Share of GSDP (at 1999-00 prices) |
| Table 1.12 | State wise Competitiveness Index |
| Table 1.13 | District wise Per Capita Income and Index of Deficiency: 2006-07 |
| Table 1.14 | District Wise Rice Production, Area and Yield in Tamil Nadu: 2007-08 |
| Table 1.15 | Bank Deposits and Credits over time in Tamil Nadu |
| Table 1.16 | Credit-Deposit Ratio: District wise in 2007-08 (as on March) |
| Table 1.17 | Comparable Employment and Unemployment in Tamil Nadu and All India: 1993-94 to 2004-05 |
| Table 1.18 | Composition and Growth of Sectoral Employment |
| Table 1.19 | Projection of Employments for Tamil Nadu: 2004-05 to 2011-12 |
| Table 1.20 | Employment in Organized Sector |
| Table 1.21 | Employment in Public Sector |
| Table 1.22 | Employment in the Organized Sector by Broad Industry Group |
| Table 1.23 | District Share in Organized Sector Employment in 2007-08 |
| Table 1.24 | Projected Organized and Unorganized Sector Employment for 2006-07 |
| Table 1.25 | Registrations and Placements in Tamil Nadu |
| Table 1.26 | Job Seekers by Education Levels |
| Table 1.27 | Vocational Guidance and Employment Counseling |
| Table 1.28 | Self Employment Services through Employment Exchanges |
| Table 1.29 | Overseas Man Power Deployed |
| Table 1.30 | Targets and Achievements of PMEGP |
| Table 1.31 | Financial Allocations under SGSY in Tamil Nadu |
| Table 1.32 | District wise Allocation under Swarna Jayanthi Gram Swarozgar Yojana |
| Table 1.33 | Poverty Line in Tamil Nadu and All-India |
| Table 1.34 | Poverty in Tamil Nadu: 1993-94 to 2004-05 |
| Table 1.35 | Poverty Head Count Ratio in Southern States: Rural, Urban and Combined States |
| Table 1.36 | Poverty Gap Estimates: Selected States |

| | |
|------------------|---|
| Table 1.37 | Human Poverty Index |
| Table 1.38 | State Wise Human Poverty Index |
| Table 1.39 | Poverty Targets in Tamil Nadu |
| Table 1.40 | Percentage of BPL to Rural and Total (BPL) Population |
| Table 1.41 | District Wise Share of Selected Groups in BPL Population: 2002 |
| Table 1.42 | Impact of Rainfall on Current Fallow Lands |
| Table 1.43 | Cropping Pattern in Tamil Nadu |
| Table 1.44 | Productivity (Yield) of Major Crops in Tamil Nadu |
| Table 1.45 | Fertilizer Consumption in Tamil Nadu |
| Table 1.46 | Crop Insurance |
| Chapter 2 | |
| Table 2.1 | Growth of Education Expenditure in Tamil Nadu: 1997-98 to 2010-11 |
| Table 2.2 | Composition of Revenue Expenditure on Education: 1997-98 to 2010-11 |
| Table 2.3 | Expenditure on School Education as % of GSDP Current Prices |
| Table 2.4 | Percent of Expenditures on Education under Plan and Non-Plan Heads |
| Table 2.5 | Composition of Expenditure on Elementary Education |
| Table 2.6 | Literacy Rate |
| Table 2.7 | District Wise Literacy in Tamil Nadu: 2001 and 2004-05 |
| Table 2.8 | Elementary Education in Tamil Nadu: No. of Institutions, Teachers and Enrolment |
| Table 2.9 | Gross Enrolment Ratio in Elementary Schools in Tamil Nadu and All India: A Comparison |
| Table 2.10 | Net Enrolment Ratio in Elementary Schools in Tamil Nadu |
| Table 2.11 | Pupil-Teacher Ratio in Elementary Schools |
| Table 2.12 | Drop-Out Rates in Primary and Middle Schools in Tamil Nadu |
| Table 2.13 | Completion and Repetition Rates in Elementary Schools |
| Table 2.14 | Illiterate Children in the Age Group of 6-11 years in Tamil Nadu |
| Table 2.15 | Out of School Children in the Age Group of 6-14 in Tamil Nadu |
| Table 2.16 | District wise Enrolment in Primary & Upper Primary Schools in Tamil Nadu: 2009-10 |
| Table 2.17 | District Wise Net Enrolment in Elementary Schools in Tamil Nadu: 2002-03 and 2009-10 |
| Table 2.18 | Drop-out Rates at Various Districts in Tamil Nadu |
| Table 2.19 | Enrolment in Classes IX to XII in Tamil Nadu |
| Table 2.20 | High School Age Population and Enrolment |
| Table 2.21 | Drop-out Rate in High Schools |
| Table 2.22 | Grading Schools based on Class Room Processes |
| Table 2.23 | Grading Schools in Districts based on Class Room Processes in 2009 |
| Table 2.24 | Composite Education Development Index (2008-09) |
| Table 2.25 | Number of Students in Arts and Science Colleges in Tamil Nadu |
| Table 2.26 | Enrolment in Engineering and Polytechnic Colleges in Tamil Nadu |
| Chapter 3 | |
| Table 3.1 | Revenue Expenditures on Health and Family Welfare in Tamil Nadu |
| Table 3.2 | Revenue Expenditure on Social Security & Welfare and Nutrition |

| | |
|------------|--|
| Table 3.3 | Projected Population Profile of Tamil Nadu: 2001 to 2011 |
| Table 3.4 | Total Fertility Rate in Tamil Nadu and India |
| Table 3.5 | Birth Rate, Death Rate and Infant Mortality Rate in Tamil Nadu |
| Table 3.6 | Health Indicators of Children |
| Table 3.7 | Immunization Performance in Tamil Nadu |
| Table 3.8 | Nutritional Status of Children (0-36 months) |
| Table 3.9 | Maternal Mortality Ratio in Tamil Nadu |
| Table 3.10 | Women Health Indicators |
| Table 3.11 | District Wise Infant Deaths, Still Births and Maternal Deaths in 2007 |
| Table 3.12 | Life Expectancy at Birth |
| Table 3.13 | District Wise Life Expectancy and Index of Deficiency in Tami Nadu |
| Table 3.14 | Rural Water Supply Status: By Habitations |
| Table 3.15 | Status of Urban Water Supply |
| Table 3.16 | Index of Districts with Safe Drinking Water and Electricity Connection |
| Table 3.17 | Health Related Eleventh Plan Targets and Performance |

LIST OF CHARTS

| | |
|-----------|---|
| Chart 1.1 | Growth Rate of Tamil Nadu GSDP and Overall GDP Growth Rate |
| Chart 1.2 | Sectoral Growth in Tamil Nadu |
| Chart 1.3 | District Wise Human Development Index in Tamil Nadu |
| Chart 1.4 | Deficiency Indices relating to Real Per Capita GDDP and HDI: Districts |
| Chart 1.5 | Head Count Ratio in Tamil Nadu and Urban Poor as % of Total Poor |
| Chart 2.1 | Expenditure on General Education as % of GSDP and As % of Total Revenue Expenditure |
| Chart 3.1 | Expenditure on Medical, Public Health & Family Welfare as % of GSDP |
| Chart 3.2 | Expenditure on Social Security, Welfare and Nutrition as % of GSDP |

LIST OF APPENDICES

| | |
|---------|--|
| 1.1 (a) | Poverty Line and Poverty Ratio: Tamil Nadu and All India |
| 1.1 (b) | State Wise Poverty Line |

Chapter 1

TAMIL NADU ECONOMY: AN OVERVIEW

1.1 Introduction

This study aims to provide a mid term appraisal of the Eleventh Five Year Plan of Tamil Nadu, considering the trends in monitorable or measurable indicators overtime. For analytical convenience, the study is divided into four parts: (a) an overview of the economy of Tamil Nadu using the relevant measurable indicators, (b) the current status of education, and (c) performance of health sector in terms of relevant measurable indicators, and (d) conclusions.

Tamil Nadu is the southernmost state in the Indian subcontinent with an estimated area of 0.13 million sq. km (i.e., 130.27 lakh hectare).¹ It makes up only 4 percent of India's land area but accounts for almost 6.1 percent of the India's population of 1029 million as enumerated in the 2001 census. The share of urban population which was 44 percent (compared to 28 percent for India as a whole) in 2001 census is estimated to have crossed 50 percent by 2007-08. Tamil Nadu, one of the comparatively developed states in the country, ranks third in terms of industrial development and seventh in terms of per capita (GSDP) income (2007-08) among the major Indian states.² Its GSDP comes largely from the non-agricultural sector. Tamil Nadu has also done well in terms of human development indicators and ranks second in terms of infrastructure development index (Ghosh and De, 2000).³

In this chapter, we assess the performance of Tamil Nadu in meeting its Eleventh Five Plan targets relating to its economy by analyzing specific monitorable indicators from the Ninth Plan period onwards and highlight the ground that remains to be covered.

1.2 Monitorable Indicators

The Union Planning Commission (2008) has designed the Eleventh Plan (2007-12) to produce both faster and more inclusive growth. It sets 9 percent growth target for the

¹ Tamil Nadu ranks 11th among the states of India in size.

² Next only to Harynana, Maharastra, Gujarat, Kerala, Himachal Pradesh, and Punjab.

³ For instances, Tamil Nadu ranks near top in terms of health and family welfare indicators such as low birth rate and infant mortality rate. Its population growth during 1990s was 1.1 percent as against the 1.97 percent for the country as a whole. It ranks third in terms of human development index.

Indian economy in the five year period 2007-08 to 2011-12 with acceleration during the period to reach 10 percent by the end of the Plan. It also identifies 26 other monitorable targets: 5 targets relate to poverty (and income); 5 relate to education; 5 others relate to health; 3 targets relate to women and children and 4 targets each in infrastructure and environment. Thus, the objective of inclusiveness has been reflected in the adoption of twenty seven monitorable targets relating to the above six categories at the national level. These 27 national targets are summarized in Table 1.1.

Further, 13 of these 27 national targets have also been disaggregated into appropriate state-specific targets. They are as follows:

1. GDP growth rate,
2. Agricultural growth rate,
3. New work opportunities,
4. Poverty ratio,
5. Drop out rate in elementary schools,
6. Literacy rate,
7. Gender gap in literacy rate,
8. Infant mortality rate (IMR),
9. Maternal mortality ratio (MMR),
10. Total fertility rate (TFR),
11. Child malnutrition,
12. Anemia among women and girls, and
13. Sex-ratio.

Table 1.1: The 27 National Targets

| Sectors/Category | Targets |
|--------------------------------|---|
| (i) Income and Poverty | <ol style="list-style-type: none"> 1. Average annual GDP growth rate of 9 percent in the Eleventh Plan period. 2. Agricultural GDP growth rate at 4 percent. 3. Generation of 58 million new work opportunities. 4. Reduction of educated unemployment to less than 5 percent. 5. 20 percent rise in the real wage rate of unskilled workers. 6. 10 percentage points reduction in the head-count ratio of consumption poverty. |
| (ii) Education | <ol style="list-style-type: none"> 7. Between 2003-04 and 2011-12, reduction in the dropout rates at the elementary level from 52.2 percent to 20 percent 8. Developing minimum standards of educational attainment in elementary schools, to ensure quality education. 9. Increasing literacy rate (for aged 7 year or more) to 85 percent by 2011-12. 10. Reducing the gender gap in literacy to 10 percentage points by 2011-12. 11. Increasing the percentage of each cohort going to higher studies to 15 percent by 2011-12. |
| (iii) Health | <ol style="list-style-type: none"> 12. Reducing IMR to 28 and MMR to 1 per 1000 live births by end of the Plan. 13. Total Fertility Rate to be reduced to 2.1 by the end of the Eleventh Plan. 14. Clean drinking water to all by 2009, ensuring no slip-backs by end of Plan. 15. Halve the malnutrition among children (0-3 years) from its present level. 16. Halve proportion of women and girls who are anemic from its present level. |
| (iv) Women and Children | <ol style="list-style-type: none"> 17. Raising sex ratio (for 0-6 year) to 935 by 2011-12 and to 950 by 2016-17. 18. Ensuring that at least 33 percent of the direct/indirect beneficiaries of all government schemes are women and girl children. 19. Ensuring a safe childhood for all children, without any compulsion to work. |
| (v) Infrastructure | <ol style="list-style-type: none"> 20. To ensure electricity connection to all villages and BPL households by 2009 and reliable power by the end of the Plan. |

(Contd.. Table 1.1)

| Sectors/Category | Targets |
|-------------------------|---|
| | 21. To ensure all-weather road connection to all habitations with population 1000 and above (500 and above in hilly and tribal areas) by 2009, and all significant habitations by 2015. 22. To connect every village by telephone and provide broadband connectivity to all villages by 2012. 23. To provide homestead sites to all by 2012 and step up the pace of house construction for rural poor to cover all the poor by 2016–17. |
| (vi) Environment | 24. To increase forest and tree cover by 5 percentage points. 25. To attain WHO standards of air quality in all major cities by 2011–12. 26. To treat all urban waste water by 2011–12 to clean river waters. 27. To increase energy efficiency by 20 percent by 2016–17. |

Source: Planning Commission, 2008.

Since it is the tasks of state policy to implement compensatory measures to push forward the laggard regions and spread growth and development more evenly, the Eleventh Plan insists that the state governments need to design appropriate policies and programmes to achieve these 13 state-specific targets. Like other states, Tamil Nadu has formulated its Eleventh Five Year Plan with an aim of attaining equitable and sustainable growth. Although the Tamil Nadu economy grew at 4.67 percent per annum (as against the target of 7 percent) during the Ninth Plan period (1997-2002) and at 8.47 percent during the Tenth Plan (2002-07) period (given 8 percent target), the Eleventh Plan sets a higher growth target of 9 percent per annum during 2007-12. Since the current financial year is the mid year of the Plan period, it is useful to assess whether the state is on-track in meeting the targets, and if not, what corrective actions are required in order to attain the set targets.

In this study, the focus will be on the 13 specific targets at the state level relating to income and poverty, education, health, women and children. Subject to data constraints, we will examine the progress in the respect of the suggested monitorable (measurable) indicators.

1.3 Eleventh Five Year Plan Targets and Outlays: Tamil Nadu

Government of Tamil Nadu has formulated and named its Eleventh Plan (2007-2012) as "People's Plan". The broad objective of the Plan is to achieve steady and sustainable growth of the economy, coupled with social justice. A major thrust of the Plan is to

safeguard the livelihood of the people by providing adequate educational and employment opportunities. The Plan also aims to upgrade the quality of life of rural and urban population by providing essential infrastructure. The Eleventh Plan targets relating to important monitorable indicators in Tamil Nadu are given in Table 1.2.

Table 1.2: Monitorable Indicators and Eleventh Plan Targets: Tamil Nadu

| Sectors/ Monitorable Indicators | Targets |
|--|---|
| <i>Income and Poverty</i> | |
| 1. GSDP Growth (real) | 9 percent per annum |
| 2. GSDP Agriculture (real) | 4 percent per annum |
| 3. GSDP Industry (real) | 9.2 percent per annum |
| 4. GSDP Services (real) | 10.1 percent per annum |
| 5. Employment (Opportunities) | 2 million additional jobs |
| 6. Poverty ratio | Reduced to 17 percent in 2011-12 |
| <i>Education</i> | |
| 7. Dropout (elementary schools) | Zero |
| 8. Literacy Rate (youth literacy) | 90 percent (100 percent) |
| <i>Health</i> | |
| 9. Infant Mortality Rate | 18 per 1000 live births by 2012 |
| 10. Maternal Mortality Ratio | 0.45 per 1000 live births by 2012 |
| 11. Total Fertility Rate | 1.7 by 2012 |
| <i>Women and children</i> | |
| 12. Child (0-3 years) Malnutrition | 16.6 percent by 2012 |
| 13. Anemia among Women | 26.7 percent by 2012 |
| 14. Sex ratio | 950 by 2012 |
| <i>Infrastructure and Environment</i> | |
| 15. Electrification of Households | 100 percent in both rural and urban |
| 16. Clean Drinking Water | All by 2012 |
| 17. Water Supply | (i) 110 lpcd for each corporation; (ii) 90 lpcd for each municipality and (iii) 70 lpcd for each town panchayats. |
| 18. Facilities to each Village Panchayat | 1 pucca electrified school building, 1 library with adequate books, a sports centre, connectivity to main road, 1 drinking water source, street lights, and internet connectivity |
| 19. Underground sewerage system | To all urban local bodies |
| 20. Forest/tree cover | Increased to 33 percent of total geographical area |

Source: State Planning Commission (2007), Eleventh Five Year Plan: Tamil Nadu (2007-12).

The Eleventh Plan's proposed outlay for Tamil Nadu is Rs. 85344 crore which is about 2.13 times the 10th Plan outlay of Rs. 40000 crore (Table 1.3). The highest priority is given to the social services with 43 percent share (as against 34 percent in 10th Plan), followed by transport (mostly for roads and bridges), and agriculture and allied activities including irrigation and flood control (with 13.1 percent share). Energy gets 12.6 percent share of the total outlay while rural development 12 percent (as much of the rural development programmes are carried out using the central funds). It is, however, noted that the share of energy in 10th Plan was 20.1 percent.

Table 1.3: Tenth and Eleventh Plan Outlays

| Sectors | Tenth Plan Outlay | | Eleventh Plan Outlay | |
|---|-------------------|-------|----------------------|-------|
| | Rs.crore | % | Rs.crore | % |
| Agriculture, Irrigation & Flood Control | 6307.1 | 15.8 | 11144.9 | 13.1 |
| Rural Development | 4100.0 | 10.3 | 10241.3 | 12.0 |
| Energy | 8029.7 | 20.1 | 10743.4 | 12.6 |
| Industry and Minerals | 555.0 | 1.4 | 3716.0 | 4.4 |
| Transport | 6730.0 | 16.8 | 11647.0 | 13.6 |
| Science and Technology | 160.4 | 0.4 | 146.6 | 0.2 |
| General Economic Services | 175.6 | 0.4 | 284.2 | 0.3 |
| Social Services | 13632.0 | 34.1 | 36732.0 | 43.0 |
| General Services | 310.3 | 0.8 | 688.8 | 0.8 |
| Total Outlay | 40000.0 | 100.0 | 85344.1 | 100.0 |

Source: State Planning Commission (2007), Eleventh Five Year Plan: Tamil Nadu (2007-12).

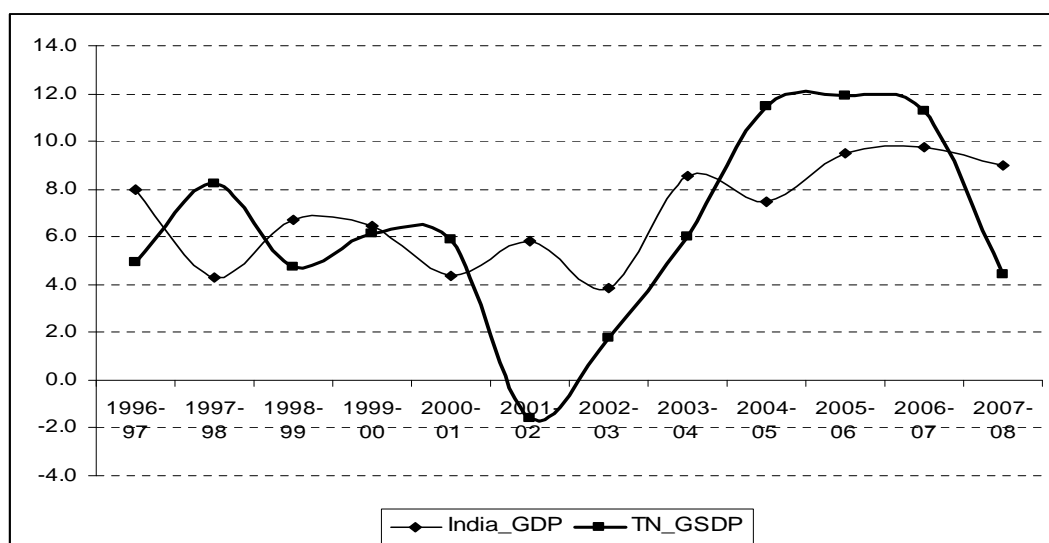
1.4 Tamil Nadu: Growth and Structural Changes

a. GSDP Growth in Tamil Nadu

It is well recognized that Tamil Nadu is one of the relatively developed and fast growing states in the country, with considerable progress achieved in various facets of development. Looking at Tamil Nadu's performance in terms of GSDP growth rate (at constant prices) since the late nineties, following three features emerge: (a) there was a fall in the growth rate of GSDP of Tamil Nadu in the early part of this decade, (b) this fall was more than that of India's GDP and c) Tamil Nadu's GSDP growth rate has greater volatility than India's GDP growth rate (Chart 1.1).

During 1996-97 to 2007-08, the average annual growth rate of GSDP of Tamil Nadu was 6.26 percent (Table 1.4) and that of GDP of the country was 6.97 percent (not shown). In comparative terms, growth rate of GSDP of Tamil Nadu has been more than the GDP growth in many years but the reverse is also true for several years.

Chart 1.1: Growth Rate of Tamil Nadu GSDP and Overall GDP Growth Rate



b. Sectoral Growth Pattern

Table 1.4 shows the sectoral growth pattern in Tamil Nadu. During 1997-98 to 2006-07, the average growth in the agriculture sector was low. The agriculture grew at an annual rate of about 3.7 percent. It is noticed that the agriculture grew at 3.21 percent per annum during the Ninth Plan period. Although the agriculture registered negative growth in first two years of the Tenth Plan period (due to drought in those years), the state achieved 4.26 percent growth of agriculture as against the target of 3.79 percent. In the first two years of the Eleventh Plan period also, the agriculture recorded a negative growth (mainly due to widespread floods during the north-east monsoon), which is a major cause for concern.

During 1997-98 to 2006-07, the manufacturing sector grew at about 5.5 percent and the tertiary sector at 8 percent. There are signs that the Tamil Nadu economy has emerged out the recession of the early years of the decade with the overall GSDP growth during 1997-98 to 2006-07 close to 6.6 percent.

Growth rates of manufacture and tertiary sectors during the Tenth Plan period were relatively high as compared to that during the Ninth Plan period (that included the recession years). As a result, the over all economy grew faster at a rate of more than 8 percent during the Tenth Plan as compared to its growth of 4.7 percent during the Ninth Plan. However, the average annual rate of growth of GSDP declined to about 4.5 percent (as against the target of 9 percent) during the last two years (i.e, first two years of the Eleventh Plan): 2007-08 and 2008-09. The fall in the overall GSDP growth was mainly due to the negative growth of agriculture sector. The other sectors also recorded decelerated growths compared to previous years, which might be because of the global economic slowdown.

Table 1.4: Annual Growth Rates: GSDP at Constant (1999-00) Prices

(Percent)

| Sectors | 1997-98* | 1998-99* | 1999-00* | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 |
|-----------------------|----------|----------|-------------------------|-------------------------|-------------------------|--------------|--------------|-------------------------|
| Agriculture | 9.79 | 9.45 | -5.60 | 5.16 | -2.77 | -23.17 | -2.27 | 22.51 |
| Manufacturing | -1.42 | -3.21 | 9.92 | 7.53 | -8.97 | 3.83 | 11.45 | 7.56 |
| Tertiary of which | 12.99 | 5.86 | 7.62 | 5.41 | 3.89 | 4.38 | 7.40 | 9.95 |
| Communication | 11.24 | 14.15 | 25.42 | 16.95 | 34.69 | 13.48 | 23.03 | 14.40 |
| Trade, hotels etc. | 7.74 | 2.31 | 11.55 | 5.78 | 1.07 | 1.97 | 13.52 | 12.57 |
| Public Administration | 16.31 | 20.44 | 14.18 | 2.67 | 1.45 | -7.06 | 1.65 | 3.96 |
| GSDP | 8.20 | 4.73 | 6.11 | 5.87 | -1.56 | 1.75 | 5.99 | 11.45 |
| Sectors | 2005-06 | 2006-07 | Avg. 1997-98 to 2001-02 | Avg. 2002-03 to 2006-07 | Avg. 1997-98 to 2006-07 | Avg. 2007-08 | Avg. 2008-09 | Avg. 2007-08 to 2008-09 |
| Agriculture | 9.59 | 14.65 | 3.21 | 4.26 | 3.73 | -7.22 | -2.65 | -4.93 |
| Manufacturing | 16.45 | 11.34 | 0.77 | 10.12 | 5.45 | 4.73 | 1.97 | 3.35 |
| Tertiary of which | 10.58 | 11.96 | 7.15 | 8.85 | 8.00 | 8.17 | 7.62 | 7.89 |
| Communication | 17.07 | 16.59 | 20.49 | 16.91 | 18.70 | 19.33 | 19.63 | 19.48 |
| Trade, hotels etc. | 13.87 | 12.50 | 5.69 | 10.89 | 8.29 | 10.80 | 3.20 | 7.00 |
| Public Administration | 1.06 | 16.48 | 11.01 | 3.22 | 7.11 | 0.64 | 17.57 | 9.11 |
| GSDP | 11.89 | 11.29 | 4.67 | 8.47 | 6.57 | 4.41 | 4.55 | 4.48 |

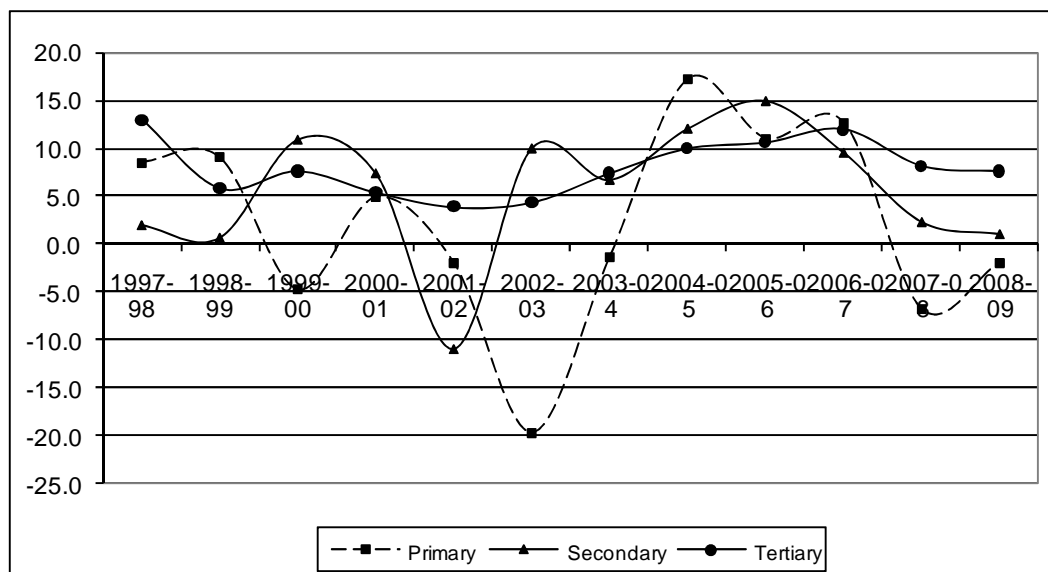
Source (Basic Data): Government of India, Central Statistical Organisation, various issues.

* For these two years, 1993-94 price series is used to compute.

Chart 1.2 shows the sectoral growth pattern in Tamil Nadu, highlighting the high volatility of the primary sector (which comprises agriculture and allied activities). All three sectors went through a recession in between 2000-01 and 2002-03. After that the growth was accelerated in all sectors up to the end of the Tenth Plan (2006-07). Then, there has been deceleration in the annual growth of all sectors and particularly the

agriculture has registered negative growth. The formulation of a medium to long term fiscal strategy to achieve the targets said in the Eleventh Plan need to take into account the changing structure of the state economy and economic slowdown in the recent years.

Chart 1.2: Sectoral Growth in Tamil Nadu



c. Changing Structure of GSDP

The structure of gross state domestic product (GSDP) in many states, particularly in Tamil Nadu has been shifting away from agriculture towards manufacturing and more towards services. As indicated in Table 1.5, during the Ninth Plan Period (i.e., from 1997-98 to 2001-02), the share of agriculture in the total GSDP measured at constant prices declined from 17.7 percent to 14.8 percent (i.e., it registered about 3 percentage points decline) and the share of secondary sector also declined from 33.4 percent to 27.1 percent (i.e., it fell by about 6.3 percentage points). At the same time, the contribution of tertiary sector increased from 47.0 percent to about 55.8 percent, registering 8.7 percentage points rise.

During the Tenth Plan period (2002-03 to 2006-07), shares of agriculture, secondary sector and tertiary sector remained more or less stable at 11 percent, 30 percent and 57 percent respectively. However, in 2008-09, the share of agriculture declined by about 2 percentage points from the end of Tenth Plan period (2006-07) and reached 9.4 percent level and the share of manufacturing also declined by about 1.5

percentage points. The share of tertiary sector increased from 56.8 percent in 2006-07 to 60.6 percent in 2008-09.

Table 1.5: Structural Changes in Tamil Nadu Economy: Share of GSDP at 1999-00 Prices

| | (Percent) | | | | | |
|---------------------------|-----------------|-----------------|----------------|----------------|----------------|----------------|
| Sectors | 1997-98* | 1998-99* | 1999-00 | 2000-01 | 2001-02 | 2002-03 |
| Primary <i>of which</i> | 19.62 | 20.42 | 17.37 | 17.20 | 17.13 | 13.52 |
| Agriculture | 17.71 | 18.51 | 15.03 | 14.93 | 14.75 | 11.13 |
| Secondary <i>of which</i> | 33.35 | 32.04 | 29.57 | 29.97 | 27.12 | 29.29 |
| Manufacturing | 25.06 | 23.16 | 19.78 | 20.09 | 18.57 | 18.95 |
| Tertiary <i>of which</i> | 47.03 | 47.54 | 53.06 | 52.83 | 55.76 | 57.19 |
| Communication | 2.41 | 2.63 | 1.93 | 2.13 | 2.92 | 3.25 |
| Trade, hotels etc., | 14.63 | 14.30 | 15.31 | 15.30 | 15.71 | 15.74 |
| Public Administration | 4.07 | 4.68 | 5.66 | 5.49 | 5.65 | 5.16 |
| All Other services | 25.92 | 25.94 | 30.16 | 29.92 | 31.48 | 33.04 |
| Sectors | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| Primary <i>of which</i> | 12.58 | 13.22 | 13.12 | 13.28 | 11.85 | 11.12 |
| Agriculture | 10.27 | 11.29 | 11.05 | 11.39 | 10.12 | 9.42 |
| Secondary <i>of which</i> | 29.47 | 29.60 | 30.37 | 29.87 | 29.26 | 28.26 |
| Manufacturing | 19.93 | 19.23 | 20.02 | 20.03 | 20.09 | 19.59 |
| Tertiary <i>of which</i> | 57.96 | 57.18 | 56.51 | 56.85 | 58.89 | 60.62 |
| Communication | 3.78 | 3.88 | 4.06 | 4.25 | 4.86 | 5.56 |
| Trade, hotels etc., | 16.86 | 17.03 | 17.33 | 17.52 | 18.59 | 18.35 |
| Public Administration | 4.95 | 4.62 | 4.17 | 4.37 | 4.21 | 4.73 |
| All Other services | 32.37 | 31.65 | 30.95 | 30.71 | 31.24 | 31.98 |

Source (Basic Data): Government of India, Central Statistical Organisation, various issues

* For these two years, 1993-94 price series is used to compute.

Table 1.6 shows the likely sectoral structure of the Tamil Nadu economy with two alternative assumptions regarding growth rates during 2009-10 to 2017-18. In the first scenario where historical growth rates (for the period 1997-98 to 2008-09) are used, the share of agriculture may shrink to about 8.3 percent in 2011-12 (end of 11th Plan) and further to 6.7 percent by 2017-18 (end of 12th Plan).

The next scenario is based on more optimistic projections of growth rate in agriculture. Even with 4 percent growth rate, which may prove to be difficult to sustain over a long period unless accompanied by increased investment in agriculture and complementary high growth rates in the industrial and service sectors, the share of agriculture goes down to a little more than 6 percent by 2017-18. These structural changes have significant implications for the employment growth in the economy.

Table 1.6: Structure of GSDP in Alternative Scenarios: Shares up to 2017-18 (Percent)

| Sectors | Growth Matrix | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2016-17 | 2017-18 |
|-------------------|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Scenario 1 | | | | | | | | | |
| Primary | 2.22 | 10.66 | 10.21 | 9.78 | 9.37 | 8.97 | 8.58 | 8.21 | 7.86 |
| Agriculture | 2.29 | 9.04 | 8.67 | 8.31 | 7.96 | 7.63 | 7.31 | 7.00 | 6.70 |
| Secondary | 5.48 | 27.95 | 27.64 | 27.32 | 27.00 | 26.67 | 26.34 | 26.01 | 25.67 |
| Tertiary | 7.99 | 61.39 | 62.15 | 62.89 | 63.63 | 64.36 | 65.07 | 65.78 | 66.47 |
| Total | | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| Scenario 2 | | | | | | | | | |
| Primary | 4.00 | 10.57 | 10.05 | 9.55 | 9.06 | 8.60 | 8.16 | 7.74 | 7.34 |
| Agriculture | 4.00 | 8.96 | 8.52 | 8.09 | 7.68 | 7.29 | 6.92 | 6.56 | 6.22 |
| Secondary | 8.00 | 27.91 | 27.54 | 27.17 | 26.80 | 26.42 | 26.03 | 25.64 | 25.24 |
| Tertiary | 11.00 | 61.52 | 62.41 | 63.28 | 64.14 | 64.98 | 65.81 | 66.62 | 67.41 |
| Total | | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

Source: Computed by author.

With the growth assumptions in scenario 1 for the remaining three years of the Eleventh Plan period, the average growth of GSDP during the Eleventh Plan period is estimated at 5.8 percent and with the assumptions in scenario 2, it is estimated at about 7.5 percent. These estimates fall short of the target rate of growth of 9 percent per annum specified in the Eleventh Plan.

d. Sectoral Composition: Tertiary Sector

The services sector is the main driver of the overall economic growth of the state. Among the services, the sector comprising the trade, hotels and restaurants is the dominant one, followed by the banking and insurance and real estates (Table 1.7). Its share increased from 28.2 percent in 2001-02 (end of Ninth Plan) to 30.8 percent in 2006-07 (i.e., its share increased by 2.6 percentage points over the five years). During the same period, the share of banking and insurance increased by 1.4 percentage points. The share of communication rose by 2.2 percentage points. At the same time, the combined share of

public administration and "Other services" declined by 5 percentage points. In 2008-09, the shares of almost all sectors declined/increased marginally as compared to 2006-07 levels, except the communication sector which registered 1.7 percentage points increase.

Table 1.7: Composition of Tertiary Sector: Percentage Shares

(Percent)

| Sectors | 1997-98* | 1998-99* | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
|------------------|----------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Railways | 1.38 | 1.37 | 2.15 | 2.02 | 2.01 | 1.94 | 1.88 | 1.87 | 1.78 | 1.74 | 1.70 | 1.71 |
| Other | | | | | | | | | | | | |
| Transports | 10.13 | 9.84 | 10.73 | 11.15 | 10.54 | 10.23 | 10.45 | 10.44 | 10.31 | 9.65 | 9.51 | 9.22 |
| Storage | 0.19 | 0.18 | 0.12 | 0.12 | 0.11 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.08 |
| Communication | 5.13 | 5.53 | 3.64 | 4.04 | 5.23 | 5.69 | 6.52 | 6.78 | 7.18 | 7.47 | 8.25 | 9.17 |
| Trade, hotels | 31.11 | 30.07 | 28.85 | 28.95 | 28.17 | 27.52 | 29.09 | 29.78 | 30.67 | 30.82 | 31.56 | 30.27 |
| Banking, | | | | | | | | | | | | |
| Insurance | 17.92 | 16.40 | 13.51 | 12.45 | 12.69 | 14.11 | 13.78 | 12.52 | 13.14 | 14.10 | 13.94 | 13.85 |
| Real Estate | 10.89 | 11.17 | 12.25 | 12.75 | 13.05 | 13.15 | 13.22 | 13.47 | 13.43 | 12.98 | 12.79 | 12.23 |
| Public | | | | | | | | | | | | |
| Administration | 8.65 | 9.84 | 10.66 | 10.38 | 10.14 | 9.03 | 8.55 | 8.08 | 7.38 | 7.68 | 7.15 | 7.81 |
| Other services | 14.60 | 15.59 | 18.08 | 18.14 | 18.06 | 18.24 | 16.44 | 16.98 | 16.01 | 15.47 | 15.00 | 15.67 |
| Tertiary (Total) | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source (Basic Data): Government of India, Central Statistical Organisation, various issues.

* For these two years, 1993-94 price series is used to compute.

It is noted from the Table 1.4 that the communication sector grew at an average rate of 20.5 percent during 9th Plan and at 16.9 percent during 10th Plan. During the same periods, trade etc. increased at 5.7 percent and 10.9 percent. Although the public administration grew at the annual rate of 11 percent during the Ninth Plan, it grew only at 3.2 percent during the Tenth Plan period.

e. Income Growth: Regional Variations

There are 30 districts in Tamil Nadu that are listed in Table 1.8. Coimbatore district was the first in terms of its average (Gross District Domestic Products in 1999-2000 prices) share in total GSDP of the state (9.7 percent) during the Tenth Plan period (2002-03 to 2006-07), followed by Chennai with 8.69 percent and Thiruvalluvar district with 5.5 percent. These 3 districts along with Vellore and Kancheepuram contributed about 35 percent of total income of the state during the Tenth Plan period.

Table 1.8: District Wise Average Shares of GDDP and Growth (at 1999-00 prices) during the Tenth Plan Period (2002-03 to 2006-07)

| Districts | % Share of State Total | | | | Average Annual Growth (%) | | | | Agri. Share in GDDP (%) |
|-------------------|------------------------|---------------|--------------|--------------|---------------------------|--------------|--------------|-------------|-------------------------|
| | GDDP | Agri-culture | Indus-try | Ter-tiary | GDDP | Agri-culture | Indus-try | Ter-tiary | |
| Perambalur | 0.83 | 2.42 | 0.42 | 0.69 | 2.60 | 3.34 | 2.42 | 1.94 | 32.24 |
| The Nilgiris | 1.14 | 2.08 | 0.89 | 1.11 | 7.58 | 3.10 | 14.76 | 7.68 | 20.26 |
| Thiruvavur | 1.17 | 2.44 | 0.53 | 1.27 | 7.08 | 14.08 | 6.51 | 6.00 | 23.06 |
| Theni | 1.33 | 2.76 | 0.82 | 1.33 | 5.03 | 2.56 | 9.60 | 5.05 | 22.96 |
| Sivagangai | 1.41 | 1.40 | 1.08 | 1.56 | 7.28 | 0.70 | 8.82 | 8.62 | 11.00 |
| Ramanathapuram | 1.55 | 1.69 | 0.91 | 1.45 | 5.27 | 5.37 | 10.18 | 7.38 | 12.03 |
| Karur | 1.58 | 1.67 | 1.61 | 1.59 | 10.70 | 4.87 | 16.85 | 9.60 | 11.68 |
| Dharmapuri | 1.70 | 3.57 | 1.40 | 1.53 | 8.42 | 10.01 | 7.39 | 10.08 | 23.22 |
| Pudukottai | 1.74 | 2.19 | 1.31 | 1.65 | 6.74 | 0.43 | 11.63 | 8.17 | 13.90 |
| Nagapattinam | 1.80 | 2.56 | 0.93 | 1.66 | 7.97 | 19.00 | 9.58 | 6.63 | 15.70 |
| Krishnagiri | 2.16 | 2.73 | 2.46 | 1.95 | 13.01 | 9.59 | 19.95 | 11.40 | 13.97 |
| Thiruvannamalai | 2.18 | 3.75 | 1.85 | 2.09 | 7.35 | 6.57 | 9.94 | 8.05 | 19.07 |
| Villupuram | 2.66 | 5.02 | 1.85 | 2.65 | 6.94 | 4.89 | 10.52 | 7.83 | 20.86 |
| Namakkal | 2.84 | 6.11 | 2.79 | 2.32 | 8.72 | 9.00 | 12.00 | 9.38 | 23.79 |
| Dindigul | 2.85 | 4.52 | 2.60 | 2.71 | 7.85 | 5.64 | 9.86 | 7.94 | 17.50 |
| Thanjavur | 2.86 | 4.33 | 1.58 | 3.23 | 7.87 | 6.36 | 9.75 | 8.46 | 16.70 |
| Thoothukodi | 3.04 | 2.92 | 2.92 | 3.03 | 7.74 | 0.61 | 8.54 | 9.19 | 10.63 |
| Cuddalore | 3.17 | 4.94 | 1.86 | 2.95 | 7.85 | 2.54 | 9.80 | 10.33 | 17.20 |
| Kanniyakumari | 3.23 | 2.24 | 4.76 | 2.60 | 10.32 | 3.37 | 13.76 | 9.69 | 7.69 |
| Virudhunagar | 4.00 | 2.04 | 6.99 | 2.90 | 8.70 | 7.74 | 8.86 | 8.99 | 5.63 |
| Thiruchirappalli | 4.18 | 3.57 | 2.95 | 5.05 | 9.52 | 2.37 | 9.38 | 11.07 | 9.45 |
| Madurai | 4.23 | 2.73 | 3.46 | 5.05 | 8.60 | 2.98 | 10.01 | 9.18 | 7.13 |
| Thirunelveli | 4.36 | 4.07 | 4.92 | 4.16 | 8.79 | 10.10 | 9.88 | 8.54 | 10.34 |
| Erode | 4.54 | 6.50 | 4.47 | 4.34 | 8.00 | 9.27 | 9.26 | 8.67 | 15.82 |
| Salem | 4.76 | 4.52 | 5.84 | 4.35 | 8.18 | 3.68 | 10.01 | 9.46 | 10.51 |
| Kancheepuram | 5.35 | 2.57 | 5.98 | 5.64 | 8.40 | -3.64 | 8.22 | 10.34 | 5.32 |
| Vellore | 5.40 | 4.14 | 6.41 | 5.23 | 8.83 | 1.33 | 10.64 | 9.59 | 8.48 |
| Thiruvallur | 5.55 | 2.87 | 7.24 | 5.32 | 10.08 | 0.80 | 10.88 | 10.79 | 5.72 |
| Chennai | 8.69 | 0.74 | 5.65 | 12.04 | 6.89 | -6.64 | 8.52 | 6.68 | 0.94 |
| Coimbatore | 9.70 | 6.91 | 13.51 | 8.55 | 11.08 | 9.53 | 14.00 | 9.56 | 7.88 |
| Tamil Nadu | 100.00 | 100.00 | 100.0 | 100.0 | 8.47 | 4.26 | 10.55 | 8.85 | 11.06 |

Source (Basic Data): Department of Economics and Statistics, Chennai.

Districts are arranged according to their shares in GSDP.

The above 5 districts with Salem, Erode, Thirunelveli, Madurai, Thiruchirappalli and Virudhunagar jointly contributed more than 60 percent of total GSDP produced in the state. They also jointly accounted for about 63 percent of total GSDP services, about 67 percent of GSDP industry and about 41 percent of GSDP agriculture. Each of their share in GSDP services of the state exceeded more than 4 percent except Virudhunagar and each of their industrial share was close to 5 percent or more in total industrial GSDP,

except Thiruchirappalli and Madurai. It is noticed that they recorded 8 percent or more than 8 percent growth of services sector (except Chennai with 6.7 percent) and 9 percent or more than 9 percent growth of industrial sector except Kancheepuram with 8.2 percent and Chennai with 8.52 percent during 2002-03 to 2006-07.

Poor ten districts, contributing each less than 2 percent of GSDP were Perambalur, The Nilgiris, Thiruvarur, Theni, Sivagangai, Ramanathapuram, Karur, Dharmapuri, Pudukkottai, and Nagapattinam. They jointly accounted for about 14 percent of total GSDP of the state. Their sectoral contributions were also low. They jointly contributed only 9.9 percent of GSDP industry, 13.8 percent of GSDP services and 23 percent of GSDP agriculture.

Coimbatore ranked first in terms of its contribution to agriculture (6.9 percent) followed by Erode (6.5 percent) and Namakkal (6.1 percent). It also ranked first in industrial share (13.5 percent), followed by Thiruvallur (7.4 percent) and Virudhunagar (6.99 percent). Chennai ranked first in terms of contribution of services GSDP of 12.04 percent, followed by Coimbatore with 8.55 percent and Kancheepuram with 5.64 percent. Perambalur obtained the lowest rank in terms of contributions to industry and services.

f. Growth of Per Capita Income

GSDP per capita of Tamil Nadu was Rs. 18651 in 1999-00 prices. During the 9th Plan period (1997-98 to 2001-02), it grew at an average rate of 3.68 percent. During the 10th Plan period (2002-03 to 2006-07), its growth was accelerated significantly. In fact the average rate of growth of per capita income during the Tenth Plan period was more than doubled (7.57 percent) than that during the Ninth Plan period. In 2007-08 (the beginning year of the Eleventh Plan), the per capita GSDP of Tamil Nadu was Rs. 33152. It may be noted that right through the years 1996-97 and 2007-08, the per capita income of Tamil Nadu was higher than the All-India average (Table 1.9).

In terms of per Capita GSDP (2007-08), Tamil Nadu ranks seventh after Haryana (Rs. 43418), Maharashtra (Rs. 38785), Gujarat (Rs. 37954), Kerala (Rs. 37530), Himachal Pradesh (Rs. 36166), and Punjab (Rs. 35414) among the major states in the country (Table 1.10).

Table 1.9: Comparative Growth of Per Capita Income in Tamil Nadu and All-India (1999-00 Prices)

| Plan Period | Year | Tamil Nadu | | | India | | |
|-------------|----------|-----------------------|-------------------|--------------------|----------------------|-------------------|--------------------|
| | | Per Capita GSDP (Rs.) | Annual Growth (%) | Average Growth (%) | Per Capita GDP (Rs.) | Annual Growth (%) | Average Growth (%) |
| | 1996-97* | 18651 | - | | 15945 | - | |
| | 1997-98* | 19975 | 7.10 | | 16320 | 2.35 | |
| | 1998-99* | 20718 | 3.72 | | 17074 | 4.62 | |
| 9th Plan | 1999-00 | 21783 | 5.14 | | 17847 | 4.53 | |
| | 2000-01 | 22846 | 4.88 | | 18295 | 2.51 | |
| | 2001-02 | 22288 | -2.44 | 3.68 | 18967 | 3.67 | 3.54 |
| | 2002-03 | 22468 | 0.81 | | 19397 | 2.26 | |
| | 2003-04 | 23608 | 5.07 | | 20735 | 6.90 | |
| 10th Plan | 2004-05 | 26094 | 10.53 | | 21935 | 5.79 | |
| | 2005-06 | 28965 | 11.00 | | 23654 | 7.83 | |
| | 2006-07 | 31986 | 10.43 | 7.57 | 25589 | 8.18 | 6.19 |
| | 2007-08 | 33152 | 3.65 | | 27502 | 7.47 | |
| 11th Plan | 2008-09 | 34417 | 3.82 | 3.73 | n.a. | (5.24)** | |

Source (Basic Data): Government of India, Central Statistical Organisation and * EPW Research Foundation (2009) for Per Capita GSDP (Tamil Nadu) figures;** 2004-05 prices; n.a-not available.

Table 1.10: Per Capita GSDP of Major States (2007-08) at 1999-00 Prices

| Rank | States | Per Capita GSDP (Rs.) | Rank | States | Per Capita GSDP (Rs.) |
|----------|-------------------|-----------------------|------|-----------------|-----------------------|
| 1 | Haryana | 43418 | 11 | West Bengal | 25410 |
| 2 | Maharashtra | 38785 | 12 | Jammu & Kashmir | 20604 |
| 3 | Gujarat | 37954 | 13 | Rajasthan | 20473 |
| 4 | Kerala | 37530 | 14 | Chattisgarh | 19186 |
| 5 | Himachal Pradesh | 36166 | 15 | Orissa | 18566 |
| 6 | Punjab | 35414 | 16 | Assam | 17544 |
| 7 | Tamil Nadu | 33152 | 17 | Jharkhand | 17260 |
| 8 | Karnataka | 30122 | 18 | Madhya Pradesh | 15162 |
| 9 | Andhra Pradesh | 29141 | 19 | Uttar Pradesh | 13475 |
| 10 | Uttaranchal | 26791 | 20 | Bihar | 9487 |

Source (Basic Data): Government of India, Central Statistical Organisation.

g. Size of Market

The market size as indicated by the Tamil Nadu's share of GSDP declined from 7.51 percent in 1999-00 to 6.95 percent in 2002-03 (the beginning of the 10th Plan). After that it started rising and reached 7.29 percent in 2006-07 (at the end of the 10th Plan). At the beginning of the 11th Plan (i.e. in 2007-08) it declined to 6.98 percent (Table 1.11).

Table 1.11: Tamil Nadu's Share of GSDP (at 1999-00 prices)

(Rs. Crore)

| Details | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 |
|------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| TNGSDP | 134185 | 142065 | 139842 | 142295 | 150815 | 168085 | 188076 | 209302 | 218538 |
| GDP | 1786526 | 1864301 | 1972606 | 2048286 | 2222758 | 2388768 | 2616101 | 2871118 | 3129717 |
| TN's share of GSDP (%) | 7.51 | 7.62 | 7.09 | 6.95 | 6.79 | 7.04 | 7.19 | 7.29 | 6.98 |

Source (Basic Data): Government of India, Central Statistical Organisation.

h. Competitiveness

Table 1.12 reports the relative position of states in a competitiveness index. This index was prepared based on a methodology developed by the Institute of Competitiveness by Mann and Kapur and published in Business World (April 5, 2010). This aggregate index is made up of four broad constituents, viz., factor conditions, demand conditions, strategic context, and supporting conditions. Tamil Nadu ranks fourth in terms of the competitive score. It also ranks fourth in terms of factor conditions. In terms of demand conditions, it has obtained only 9th rank. However, it has obtained third and second ranks in strategic context and supporting conditions respectively.

Table 1.12: State wise Competitiveness Index

| States | Competitive Score | Factor Conditions | Demand Conditions | Strategic Context | Supporting Conditions |
|-------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------------------------|
| Delhi | 64.96 | 58.35 | 82.90 | 62.71 | 56.37 |
| Maharashtra | 59.53 | 54.99 | 66.18 | 53.10 | 65.56 |
| Goa | 56.87 | 45.54 | 62.26 | 58.88 | 67.96 |
| Tamil Nadu | 56.35 | 48.60 | 59.32 | 56.40 | 66.17 |
| Andhra Pradesh | 53.92 | 50.64 | 57.01 | 49.41 | 60.30 |
| Gujarat | 53.45 | 43.39 | 61.79 | 51.50 | 62.57 |
| Punjab | 53.08 | 46.01 | 61.35 | 51.19 | 57.03 |
| Karnataka | 52.25 | 44.30 | 60.00 | 48.35 | 60.39 |
| Haryana | 51.28 | 42.24 | 61.01 | 47.10 | 59.12 |
| Himachal Pradesh | 49.70 | 42.65 | 56.46 | 42.25 | 61.06 |
| Kerala | 49.24 | 43.16 | 55.67 | 46.07 | 55.00 |
| Uttarakhand | 48.91 | 42.83 | 58.20 | 43.15 | 53.67 |
| Uttar Pradesh | 48.47 | 41.76 | 62.13 | 39.80 | 51.81 |
| Rajasthan | 47.50 | 40.47 | 59.11 | 40.58 | 52.21 |
| West Bengal | 47.14 | 39.98 | 57.26 | 41.33 | 52.82 |
| Madhya Pradesh | 46.99 | 41.11 | 56.63 | 39.28 | 52.94 |
| Orissa | 44.98 | 40.58 | 50.48 | 38.94 | 51.83 |
| Assam | 44.01 | 38.15 | 51.74 | 37.99 | 50.65 |
| Bihar | 42.85 | 37.53 | 50.82 | 37.11 | 47.94 |
| Jharkhand | 42.47 | 33.03 | 52.43 | 40.25 | 48.77 |
| Chhattisgarh | 41.99 | 34.21 | 49.58 | 38.70 | 49.40 |

Source: Business World (April 5, 2010).

1.5 Regional Development in Tamil Nadu

It is well known that the per capita income is the most widely used measure of relative regional economic development. Among 30 districts in Tamil Nadu, Virudhunagar (Rs. 46143) and Coimbatore (Rs. 44684) ranked first and second in per capita income (real) in 2006-07 (this is the latest year for which the district wise income data are available). Kanniyakumari obtained third rank. Perambalur (Rs. 13068), Villupuram (Rs. 18179) and Tiruvannamalai (Rs. 20301) districts were the poorest, occupying the last three ranks. It is noted that the per capita income of the top ranked district is about 3.5 times larger than that of the poorest district (i.e., the latter is only 28.3 per cent of the former). The per capita income of the state was about Rs. 31986 in 2006-07. In 17 districts (out of 30), the per capita income was below the per capita income of the state (Table 1.13).

Table 1.13: District wise Per Capita Income and Index of Deficiency: 2006-07

(Rs. in 1999-00 Prices)

| Rank* | Districts | Per Capita Income | Index of Deficiency | Rank | Districts | Per Capita Income | Index of Deficiency |
|-------------------------|-----------------|-------------------|---------------------|-------------|------------------|-------------------|---------------------|
| 30 | Perambalur | 13068 | 103.40 | 15 | Vellore | 30696 | 48.29 |
| 29 | Villupuram | 18179 | 87.43 | 14 | Salem | 30742 | 48.15 |
| 28 | Thiruvannamalai | 20301 | 80.79 | 13 | Thirunelveli | 32449 | 42.81 |
| 27 | Thiruvarur | 21408 | 77.33 | 12 | Madurai | 33595 | 39.23 |
| 26 | Pudukottai | 23321 | 71.35 | 11 | Erode | 34941 | 35.02 |
| 25 | Sivagangai | 24076 | 68.99 | 10 | Karur | 35219 | 34.15 |
| 24 | Theni | 24110 | 68.88 | 9 | Thiruchirappalli | 35518 | 33.22 |
| 23 | Ramanathapuram | 25179 | 65.54 | 8 | Kancheepuram | 36097 | 31.41 |
| 22 | Dharmapuri | 25677 | 63.98 | 7 | Chennai | 37941 | 25.64 |
| 21 | Nagapattinam | 25835 | 63.49 | 6 | Namakkal | 38180 | 24.90 |
| 20 | Thanjavur | 26083 | 62.71 | 5 | Thiruvallur | 38255 | 24.66 |
| 19 | Cuddalore | 27780 | 57.41 | 4 | Thoothukodi | 38354 | 24.35 |
| 18 | Krishnagiri | 28056 | 56.55 | 3 | Kanniyakumari | 41436 | 14.72 |
| 17 | The Nilgiris | 28895 | 53.92 | 2 | Coimbatore | 44684 | 4.56 |
| 16 | Dindigul | 29608 | 51.69 | 1 | Virudhunagar | 46143 | 0 |
| Tamil Nadu State | | 31986 | 44.26 | C.V. | | 25.80 % | 50.44% |

Source: Department of Economics and Statistics, Chennai; * Ranks in higher per capita income; CV=coefficient of variation (=standard deviation/mean).

Although per capita income is widely used as the sole measure of development, there is a philosophical distinction between income and well being of people. Therefore, many argue that this measure is not fully satisfactory or incomplete and suggest various composite indices of development. Among those measures, the human development index (HDI) is very popular. The HDI is a composite indicator (formulated by UNDP) containing three factors: life expectancy at birth (representing a long and healthy life), educational attainment (representing knowledge) and real per capita income in purchasing power parity dollars (representing a decent standard of living).⁴

⁴ Adult literacy rate (two-thirds weight) and the combined gross primary, secondary and tertiary enrolment ratio (one-third weight) measure the educational attainment. The purchasing power parity dollar value is used to compare the per capita income of the nations. UNDP argues that if people have these three "choices", they may be able to access other opportunities as well. The Planning Commission (2002) has provided the HDI values for major states using the following indicators: life expectancy at age 1, IMR, literacy rate, intensity of formal education, and per capita consumption. It shows the distance the state has to travel to reach the maximum possible value. Although the computation procedure is the same, this index is not strictly comparable with the UNDP's HDI. During 1991 to 2001, Tamil Nadu's HDI value increased from 0.466 to 0.531 and the all India HDI from 0.381 to 0.472. In 2001, Tamil Nadu ranked third among the major states in India (not shown).

The State Planning Commission (2008) has compiled the HDI for the state and districts (following the methodology employed in Tamil Nadu State Human Development Report (2003)).⁵ Chart 1.3 shows the relative positions of districts in terms of HDI. Chennai has obtained the highest HDI value (0.842) and Dharmapuri the lowest value (0.656). Thus Chennai has a shortfall in the HDI of about 16 percent while Dharmapuri has a shortfall of 34 percent. For all other districts, the shortfall ranges between 16-34 percent. The HDI for the state is 0.736.

While it has been argued that better human development could lead to more healthy and qualified labor force and hence higher productivity, it is common experience that good economic performance has not always led to a good HDI. In respect of districts in Tamil Nadu, we find a rather close association between low income and poor human development performance. For example, poorer districts Villupuram, Thiruvannamalai, Perambalur, Sivagangai, Pudukkottai, and Ramanathapuram have poor HDI values.

The correlation between the HDI and per capita income is 0.671. Of course, a few exceptions: Namkkal, Virudhunagar, Thiruvarur, and Krishnagiri. For these districts the differences between the income rank and the HDI rank are high.

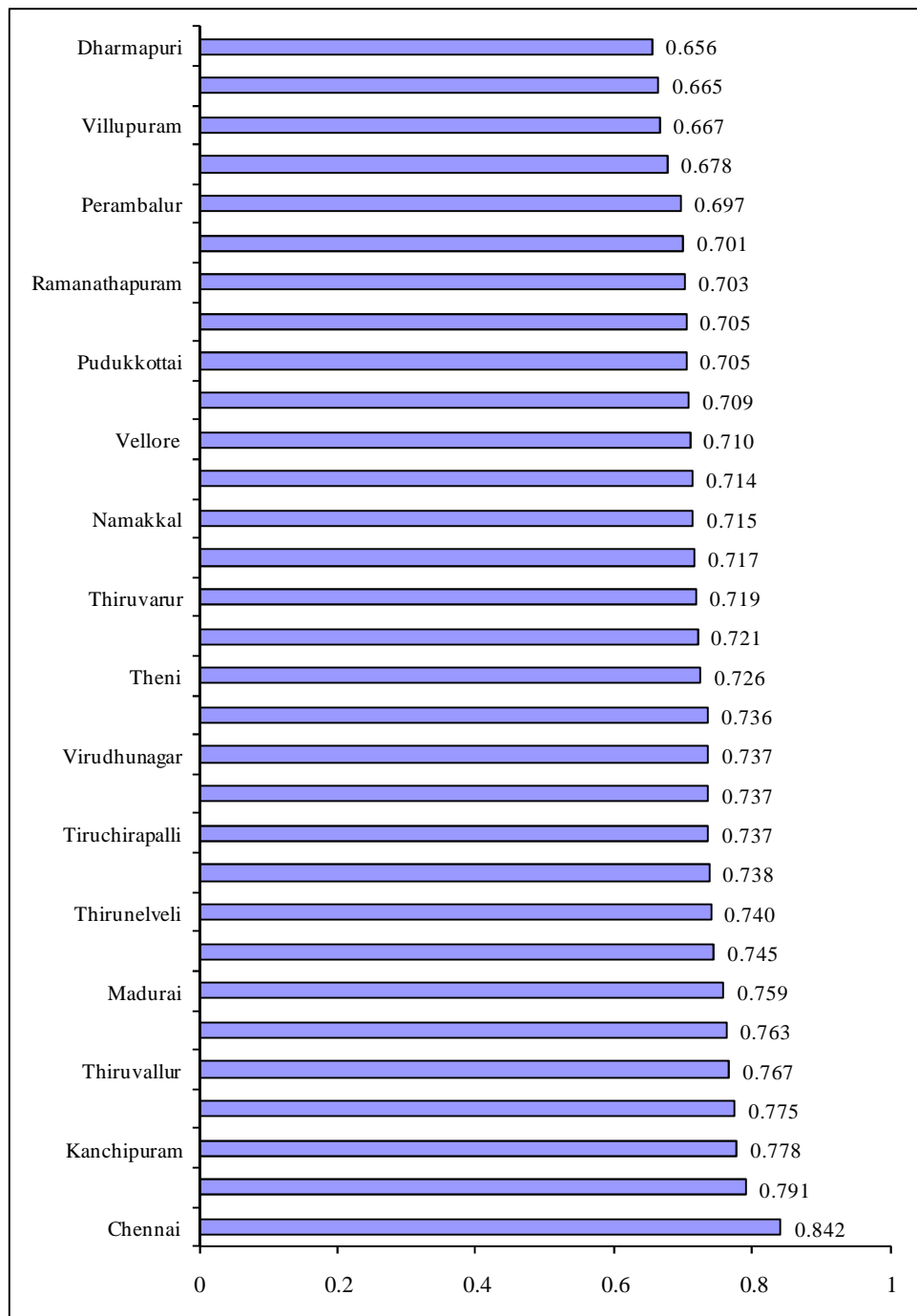
We have also worked out an index of deficiency in order to highlight those districts that are the lowest in terms of per capita income (HDI) as well as the extent by which they fall below the average income (HDI) of the state. The index for i^{th} district is defined as:

$$\text{Index of Deficiency } (I_i) = \frac{[\text{Maximum} - \text{Actual}_i]}{\text{Average for the State}} \times 100 \quad (1.1)$$

Thus, the index I is given by $[I_{\text{max}} - A_i] / I_a \times 100$ where, I_{max} = maximum (per capita income/HDI) value among all districts; A_i = actual (per capita) value of the concerned district and I_a = average (per capita or HDI) value of the state. Table 1.11 shows the per capita income index of deficiency for various districts in Tamil Nadu in 2006-07.

⁵ The HDI is computed using (i) life expectancy at birth data of VES 2006, literacy rate (2004-05) data (using from NSS 61st round and Census 2001), gross enrolment ratio data for the year 2006 of school education department and real per capita income data (2002-03) and PPP\$ value from Global HDR 2004.

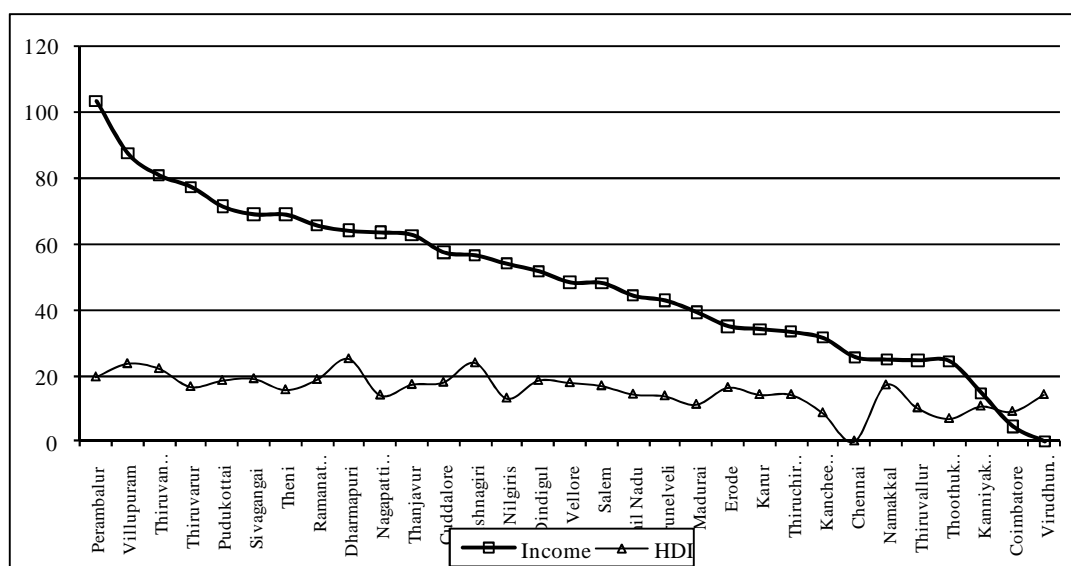
Chart 1.3: District Wise Human Development Index in Tamil Nadu



This index of deficiency is useful for augmenting allocation efficiency in various expenditures under different programmes where district-wise allocation is in the hands of the state government. It is expected that for efficiency gains, inter-district allocation of resources should bear a high positive correlation with the index of deficiency. The higher the deficiency the higher the index of deficiency for a district and higher should be its allocation. The efficiency gains are larger if the spread of the index around the average is larger when allocation of expenditures are aligned to the index of inter district deficiency (Srivastava *et al.*, 2008).

Higher efficiency gains will result when different programmes addressing different needs (in respect of education, health, income etc.) use specific indices of deficiency rather using composite indices which have been weighted in some arbitrary manner. This is so because the orders of districts with different indicators of deficiencies considerably vary. In Table 1.13, the index values for per capita income vary from 0-103.4 percent and the state average index value is 44.26 percent. In the case of HDI, the index values range between 0-25.3 percent (Chart 1.4). This means that while the Government has been successful in spreading education and health across districts, wide differences remain in economic activities as reflected by the per capita income index relative to the average.

Chart 1.4: Deficiency Indices relating to Real Per Capita GDDP and HDI: Districts arranged in Descending Order of Per Capita Income Deficiency



We can observe from Table 1.8 that the relatively high-income districts are associated with a less share of agriculture sector in district income. Interestingly, almost all the poorest districts fall in the eastern part of the state below Kanchipuram and Vellore. The districts with the highest incomes (above the state average) are in 3 segments: at the top in the middle of the southern part (Virudhunagar, Kanniyakumari, Tuticorin, Thiruchirappalli), in the east (Tiruvalluvar, Chennai, and Kanchipuram) and in the northwestern part (Coimbatore, Namakkal, Karur, and Erode). The poorest district Perambalur was adjacent to the richer district Tiruchirappalli and the other poorest districts Tiruvannamalai and Villupuram are adjacent to the two richer districts (Chennai and Kanchipuram). It seems that prosperity did not spread to the neighboring districts from Chennai, Kanchipuram and Tiruchirappalli. Since 17 out of 30 districts have a per capita income below the state average and the per capita income of the poorest district is only 35 percent of that of the richest district, we may infer that the inter-district distribution of income is very skewed.

Another important fact is that most of the poorest districts such as Cuddalore, Thanjavur, Nagapattinam, Tiruvannamalai, Tiruvarur and Villupuram (and Ramanathapuram) are the major rice producers of the state. In most of these rice-producing districts, the productivity (i.e., yield per hectare) is below the average productivity of the state (see Table 1.14). We have found a positive and significant correlation (0.47) between per capita income and rice productivity. Therefore, we can infer that low productivity in agriculture is another reason for low per capita income.

Table 1.14: District Wise Rice Production, Area and Yield in Tamil Nadu: 2007-08

| Districts | Output (tonnes) | Area (ha.) | Yield (Kg.) | Districts | Output (tonnes) | Area (ha.) | Yield (Kg.) |
|------------------|--------------------|---------------|----------------|-----------------|--------------------|----------------|----------------|
| Virudhunagar | 93093 | 28214 | 3300 | Dindigul | 67837 | 17276 | 3927 |
| Coimbatore | 24456 | 6479 | 3775 | The Nilgiris | 4287 | 1110 | 3862 |
| Kanniyakumari | 90210 | 20349 | 4433 | Krishnagiri | 47672 | 14982 | 3182 |
| Thoothukodi | 64735 | 18056 | 3585 | Cuddalore | 335119 | 102798 | 3260 |
| Thiruvallur | 286007 | 78712 | 3634 | Thanjavur | 479643 | 150228 | 3193 |
| Namakkal | 45300 | 12205 | 3712 | Nagapattinam | 289317 | 154040 | 1878 |
| Chennai | 0 | 0 | 0 | Dharmapuri | 70395 | 18801 | 3744 |
| Kancheepuram | 345129 | 91356 | 3778 | Ramanathapuram | 29879 | 123771 | 241 |
| Thiruchirappalli | 227332 | 61289 | 3709 | Theni | 61662 | 14400 | 4282 |
| Karur | 40279 | 12433 | 3240 | Sivagangai | 78939 | 76733 | 1029 |
| Erode | 166860 | 38360 | 4350 | Pudukottai | 159552 | 88665 | 1799 |
| Madurai | 214880 | 61864 | 3473 | Thiruvarur | 311306 | 151629 | 2053 |
| Thirunelveli | 323944 | 83711 | 3870 | Thiruvannamalai | 385914 | 112148 | 3441 |
| Salem | 72083 | 21711 | 3320 | Villupuram | 480329 | 145403 | 3303 |
| Vellore | 148367 | 44326 | 3347 | Perambalur | 95428 | 38121 | 2503 |
| State | | | | | 5039954 | 1789170 | 2817 |

Source: Statistical Handbook of Tamil Nadu-2008, Department of Economics and Statistics, Chennai -6.

Tamil Nadu is one of the prominent states in the financial services sector. It has the highest credit deposit (CD) ratio among the major states in the country. During 1998-99 to 2007-08, the aggregate deposits of scheduled commercial banks in Tamil Nadu increased from Rs. 46903 crore to Rs. 224114 crore, registering about 4.8 fold increase and the credits from Rs. 42643 crore to Rs. 253124 crore, registering about 5.9 fold rise. The CD ratio also increased from 90 to 113 (Table 1.15.).

Table 1.15: Bank Deposits and Credits over time in Tamil Nadu*

| (Rs. crore) | | | | | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Year | 1998 -99 | 1999 -00 | 2000 -01 | 2001 -02 | 2002 -03 | 2003 -04 | 2004 -05 | 2005 -06 | 2006 -07 | 2007 -08 |
| Deposits | 46903 | 56109 | 65509 | 76707 | 86343 | 98170 | 110029 | 134358 | 162426 | 224114 |
| Advances | 42643 | 50282 | 56153 | 62323 | 74587 | 88180 | 109850 | 146514 | 185920 | 253124 |
| C-D ratio | 90 | 90 | 86 | 81 | 86 | 90 | 100 | 109 | 114 | 113 |
| in % | (54) | (58) | (57) | (58) | (57) | (58) | (67) | (72) | (75) | (75) |

Source (basic data): Tamil Nadu Economic appraisal (various issues).

Figures in parentheses are C-D ratios for All India' * as on June;

Using district wise data on per capita income and CD ratio, we find that the correlation between them is 0.34, indicating that the CD ratio is low in poor districts (Table 1.16).

Table 1.16: Credit-Deposit Ratio: District wise in 2007-08 (as on March)

| (Rs. crore) | | | | | | | |
|---------------|--------|---------|--------------------|-----------------|---------------|---------------|--------------------|
| Districts | Credit | Deposit | CD ratio (%) | Districts | Credit | Deposit | CD ratio (%) |
| Chennai | 120636 | 95277 | 126.6 | Pudukkottai | 1041 | 1293 | 80.5 |
| Coimbatore | 33518 | 19608 | 170.9 | Ramanathapuram | 931 | 1225 | 76.0 |
| Cuddalore | 2639 | 2946 | 89.6 | Salem | 5143 | 4775 | 107.7 |
| Dharmapuri | 983 | 836 | 117.6 | Sivagangai | 1291 | 2066 | 62.5 |
| Dindigul | 2912 | 2395 | 121.6 | Thanjavur | 2864 | 3487 | 82.1 |
| Erode | 5936 | 5181 | 114.6 | Theni | 1595 | 1099 | 145.1 |
| Kanchipuram | 4038 | 9296 | 43.4 | Tiruchirapalli | 4487 | 6186 | 72.5 |
| Kanniyakumari | 2875 | 3240 | 88.7 | Thiruvannamalai | 1297 | 1524 | 85.1 |
| Karur | 1811 | 1470 | 123.2 | Thiruvallur | 3138 | 5414 | 58.0 |
| Krishnagiri | 1598 | 1542 | 103.6 | Thiruvarur | 746 | 1268 | 58.8 |
| Madurai | 6404 | 6769 | 94.6 | Tuticorin | 2374 | 3052 | 77.8 |
| Nagapattinam | 1265 | 2064 | 61.3 | Tirunelveli | 3204 | 4439 | 72.2 |
| Namakkal | 2720 | 2608 | 104.3 | Vellore | 2998 | 3886 | 77.1 |
| Nilgiris | 998 | 1365 | 73.1 | Villupuram | 1990 | 1848 | 107.7 |
| Perambalur | 471 | 579 | 81.3 | Virudhunagar | 4489 | 2863 | 156.8 |
| State | | | | | 188804 | 155176 | 121.7 |

Source (basic data): Tamil Nadu Economic appraisal (various issues).

1.6 Employment and New Job Opportunities

Economic growth depends on employment and employment in turn depends on economic growth. This two-way relationship can potentially address three policy issues at one stroke: poverty alleviation, unemployment reduction, and human development. Growth that is sectorally and spatially well-spread across the state and improves the quality of employment and income levels could be a panacea for any state. The employment-growth linkage in a state economy depends, among other factors, on the changing structure of the state economy and policies that can promote employment in the faster growing sectors.

In particular, education and technical training of the potential entrants into the work force will not only augment high productivity employment but also result in higher growth. Higher education and development of technical skills can set up a virtuous cycle in motion, whereby labor released from low-skill primary sector activities can be absorbed in the expanding secondary and tertiary sector where productivity is higher. Higher education and higher income levels would lead to a higher level of human development.

a. Employment and Unemployment in Tamil Nadu

According to the Census of India estimates, the population in Tamil Nadu increased from 55.86 million in 1991 to 62.406 million in 2001, registering an average annual growth of 1.11 percent. At this rate of growth, the population is expected to reach 67.44 million in 2011-12. Between 1993-94 and 1999-00, annual growth of population exceeded that of labor force, which is defined as the number of persons employed and the unemployed (population seeking or available for jobs) and of employment. As a result, the unemployment rate in Tamil Nadu increased from 2.36 percent in 1993-94 to 2.63 percent. Between 1999-00 and 2004-05, this trend reversed and the growth of employment accelerated to 1.27 percent per annum (as against 0.24 percent during 1993-94 to 1999-00). The unemployment rate declined to 2.2 percent as against the All India average rate of 2.4 percent (Table 1.17).

Table 1.17: Comparable Employment and Unemployment in Tamil Nadu and All –India: 1993-94 to 2004-05

(lakhs)

| Details | Tamil Nadu | | | India | | |
|----------------------|------------|---------|---------|---------|---------|----------|
| | 1993-94 | 1999-00 | 2004-05 | 1993-94 | 1999-00 | 2004-05 |
| Estimated Population | 578.10 | 614.30 | 648.00 | 8950.50 | 10041 | 10847.60 |
| Labor Force | | (1.02) | (1.07) | | (1.93) | (1.56) |
| Employed (UPSS)* | 292.51 | 297.51 | 315.50 | 3819.40 | 4060.50 | 4690.60 |
| Unemployed | | (0.28) | (1.18) | | (1.03) | (2.93) |
| Unemployment Rate:% | 285.60 | 289.69 | 308.56 | 3744.50 | 3970.0 | 4578.20 |
| | | (0.24) | (1.27) | | (0.98) | (2.89) |
| | 6.90 | 7.81 | 6.94 | 74.90 | 90.50 | 112.40 |
| | | (2.09) | (-2.33) | | (3.20) | (4.43) |
| | 2.36 | 2.63 | 2.20 | 1.96 | 2.23 | 2.40 |

Source: NSS (various rounds); * Usual (Principal + Subsidiary) Status data; figures in parentheses are annual growth rates.

b. Composition and Sectoral Growth of Employment

The structural shifts of the state economy have significant implications on the sectoral composition of employment. At the successive 5 year intervals, the primary sector share in total employment has progressively come down. Correspondingly shares of secondary and tertiary sectors have gone up (see Table 1.18). Comparing the share of workforce in different sectors with those in GSDP, it is noted that the primary sector has a share in employment (41.5 percent in 2004-05) that is far exceeding its share in output (13.2 percent in 2004-05 in Table 1.5). Correspondingly, the services sector employs far less than its share in GSDP. It is only the secondary sector that contributes to a share in employment at 27.7 percent in 2004-05 and is comparable with its share in GSDP in 2004-05 at 29.6 percent.

Table 1.18 also indicates the rate of growth of employment in different sectors. The rate of fall in employment in primary sector between 1999-00 and 2004-05 (-12.52 percent) was higher than that between 1993-94 and 1999-00 (-5.92 percent). However, the growth rate of employment in other sectors during 1999-00 to 2004-05 were relatively high as compared to that during 1993-94 to 1999-00. It is noticed that during 1993-94 to 2004-05, the average annual rate of growth of total employment in the state was only 0.65 percent. If we consider the period from 1999-00 to 2004-05, the average rate is estimated to be 1.14 percent.

Table 1.18: Composition and Growth of Sectoral Employment

| Sectors | 1993-94 | 1999-00 | 2004-05 |
|---|----------------|----------------|----------------|
| <i>Composition of Work Force (in Lakh)</i> | | | |
| Primary | 154.81 | 145.65 | 127.42 |
| Secondary | 62.43 | 68.53 | 84.87 |
| Tertiary | 68.36 | 75.56 | 94.37 |
| Total | 285.6 | 289.74 | 306.66 |
| <i>Sectoral Shares (percent)</i> | | | |
| Primary | 54.21 | 50.27 | 41.55 |
| Secondary | 21.86 | 23.65 | 27.68 |
| Tertiary | 23.94 | 26.08 | 30.77 |
| Total | 100.00 | 100.00 | 100.00 |
| <i>Growth Rates (percent)</i> | | | |
| Primary | | -5.92 | -12.52 |
| Secondary | | 9.77 | 23.84 |
| Tertiary | | 10.53 | 24.89 |
| Total | | 1.45 | 5.84 |

Source: Government of Tamil Nadu (2007), Eleventh Five Year Plan 2007-2012.

c. New Job Opportunities in Tamil Nadu

Tamil Nadu is one of the IT hubs in the country. The IT and ITES industrial group has emerged as an important organized sector contributing to the economy and has huge employment potentials. Apart from IT and ITES, healthcare and hospitality sectors are new growth drivers of the economy. Another rapidly rising sector is bio-technology. These sectors demand soft and communication skills. The challenge facing the state is that on one hand, the job opportunities are numerous, and on the other, the required skills are scarce.

The Eleventh Five Year Plan of Tamil Nadu envisages a rapid growth in employment opportunities. It sets a target of creating 2 million additional jobs in the state during 2007-12. The data collected through EMI (Employment Market Information) programme operated through the employment exchanges is useful in analyzing the progress in employment generation in the organized sector in the state. But the organized sector employment account for only about 10 percent of the total employment. Remaining workforce is employed in unorganized sector, self employment, part time agriculture, household sector, and defense and missions abroad.⁶

⁶ According to the NSS based estimation, there were 28.97 million workers in Tamil Nadu in 1999-00. In the same year, there were 2.52 million workers in the organized sector, accounting for about 8.7 percent. However, in 2004-05, the share of organized sector worker declined to about 7.4 percent.

Due to non availability of data relating to unorganized employment, self employment etc, we analyze only the employment generation in the organized sector in the next section. However, we provide the projected employment data by assuming two alternative growth rates of employment: (i) the annual rate achieved during 1993-94 to 2004-05: 0.649 percent (scenario 1) and (ii) the rate achieved during 1999-00 to 2004-05: 1.142 percent (scenario 2) in Table 1.19.

Table 1.19: Projection of Employments for Tamil Nadu: 2004-05 to 2011-12

(in Lakh)

| Scenario | Growth Rate(%) | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 |
|----------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1 | 0.649 | 306.66 | 308.65 | 310.65 | 312.67 | 314.70 | 316.74 | 318.80 | 320.87 |
| 2 | 1.142 | 306.66 | 310.16 | 313.70 | 317.29 | 320.91 | 324.57 | 328.28 | 332.03 |

Source: computed by the author

In scenario 1, the employment in 2007-08 (the beginning of 11th Plan) is estimated at 31.267 million and it is expected to reach 32.087 million in 2011-12. This estimate indicates an additional employment of 0.82 million during 11th Plan period. The scenario 2 indicates 1.474 million additional jobs during the plan period. These estimated figures fall short of the target of 2 million addition jobs.

d. Employment Generations in Organized Sector

The data collected through employment exchanges are useful to study the occupational composition and the employment trends in the organized sector. The public sector accounted for about two-third of the employment in the organized sector. Between 1997-98 and 2001-02 (9th Plan period), the employment in the organized sector declined from 2.561 million to 2.516 million. That is, the organized sector employment declined by about 44,100. Of this, about 28000 job reduction was in the private sector. During the 10th Plan period, the employment in the private sector declined by about 79,500 and the employment in public sector by about 82,000 and so the total organized sector employment declined by about 1.615 lakh. But in 2007-08, 57,100 additional jobs were created in the private sector and 5,600 in public sector and therefore, 62,700 additional jobs were generated in the organized sector. However, the organized sector employment in 2007-08 was less than that in 2002-03 (beginning of 10th Plan) by about 1 lakh. Of this, the public sector employment declined by about 76,000 (Table 1.20).

Table 1.20: Employment in Organized Sector

(000's)

| Year | Public sector | | Private Sector | | Total | |
|----------|---------------|--------------|----------------|--------------|--------|--------------|
| | Number | Net Addition | Number | Net Addition | Number | Net Addition |
| 1997-98 | 1628.5 | | 932.0 | | 2560.5 | |
| 1998-99 | 1630.0 | 1.5 | 916.0 | -16.0 | 2546.0 | -14.5 |
| 1999-00 | 1597.2 | -32.8 | 927.2 | 11.2 | 2524.4 | -21.6 |
| 2000-01 | 1586.3 | -10.9 | 919.5 | -7.7 | 2505.8 | -18.6 |
| 2001-02 | 1612.3 | 26.0 | 904.1 | -15.4 | 2516.4 | 10.6 |
| 2002-03 | 1570.3 | -42.0 | 831.9 | -72.2 | 2402.2 | -114.2 |
| 2003-04 | 1540.3 | -30.0 | 741.3 | -90.6 | 2281.6 | -120.6 |
| 2004-05 | 1512.8 | -27.5 | 765.9 | 24.6 | 2278.7 | -2.9 |
| 2005-06 | 1500.8 | -12.0 | 729.7 | -36.2 | 2230.5 | -48.2 |
| 2006-07 | 1488.3 | -12.5 | 752.4 | 22.7 | 2240.7 | 10.2 |
| 2007-08* | 1493.9 | 5.6 | 809.5 | 57.1 | 2303.4 | 62.7 |

Source: Directorate of Employment and Training, Government of Tamil Nadu; *as on 31.12.07.

Within the public sector, the employment in quasi-government declined by about 27,000. The employment in both centre and state government departments fell by about 35,700 (Table 1.21).

Table 1.21: Employment in Public Sector

| Year | Central Govt. | State Govt. | Quasi Govt. | Local bodies | Total |
|---------|---------------|-------------|-------------|--------------|--------|
| 1995-96 | 237.7 | 679.3 | 486.2 | 242.3 | 1645.5 |
| 2001-02 | 251.9 | 635.7 | 549.8 | 174.9 | 1612.3 |
| 2002-03 | 243.4 | 605.4 | 539.7 | 181.8 | 1570.3 |
| 2003-04 | 242 | 596.4 | 523.4 | 178.5 | 1540.3 |
| 2004-05 | 235.8 | 587.2 | 513.2 | 176.6 | 1512.8 |
| 2005-06 | 230.9 | 582 | 513.6 | 174.3 | 1500.8 |
| 2006-07 | n.a | n.a | n.a | n.a | 1488.3 |
| 2007-08 | 225.8 | 587.1 | 512.5 | 174.0 | 1499.5 |

Source: Directorate of Employment and Training, Government of Tamil Nadu; n.a – not available.

Table 1.22 provides the details of organized sector employment by broad industry group. During 1997-98 to 2007-08, although the employment in banks, insurance and real estate increased by about 53,500, the total organized sector employment decreased by about 2.4 lakh, mainly because the employment in manufacturing declined by about 2.33 lakh. During the same period, the employment in

electricity, and water services also declined by 31,200; the jobs in community and other personal services also by about 23,400 and in agriculture by about 10,400.

Table 1.22: Employment in the Organized Sector by Broad Industry Group

(000's)

| Year | Agriculture, Hunting, Fishing etc. | Mining and Quarrying | Manufa- cturing | Const- ruction | Electricity, Gas, Water | Trade, Hotel, Restaurant | Transport, Storage Communi. | Bank, Insurance, Real Estate | Community and Other Services | Total |
|------------|---|-------------------------|--------------------|-------------------|-------------------------|-----------------------------|-----------------------------------|---------------------------------------|---------------------------------------|--------|
| 1997-98 | 89.0 | 30.1 | 731.1 | 59.1 | 80.0 | 90.5 | 301.3 | 155.5 | 1024.0 | 2560.5 |
| 1998-99 | 88.2 | 30.1 | 710.9 | 60.9 | 80.9 | 88.0 | 310.2 | 157.2 | 1019.6 | 2546.0 |
| 1999-00 | 88.0 | 30.0 | 705.8 | 60.8 | 72.3 | 92.7 | 317.4 | 158.7 | 998.9 | 2524.4 |
| 2000-01 | 86.9 | 28.6 | 693.8 | 59.7 | 78.1 | 95.8 | 307.8 | 156.1 | 999.0 | 2505.8 |
| 2001-02 | 83.1 | 27.9 | 687.4 | 55.5 | 81.6 | 90.7 | 328.7 | 152.7 | 1008.8 | 2516.4 |
| 2002-03 | 98.2 | 30.0 | 631.7 | 48.2 | 77.5 | 78.2 | 323.0 | 159.1 | 956.3 | 2402.2 |
| 2003-04 | 90.3 | 27.7 | 520.7 | 56.7 | 70.4 | 76.7 | 308.0 | 161.8 | 969.2 | 2281.6 |
| 2004-05 | 83.9 | 27.2 | 531.2 | 47.5 | 70.6 | 84.0 | 304.2 | 160.2 | 969.6 | 2278.4 |
| 2005-06 | 79.5 | 26.6 | 482.5 | 49.5 | 62.1 | 84.8 | 301.6 | 161.6 | 982.2 | 2230.4 |
| 2006-07 | 78.5 | 26.9 | 492.5 | 49.8 | 60.3 | 86.8 | 300.8 | 159.0 | 986.0 | 2240.6 |
| 2007-08 | 78.6 | 27.0 | 498.1 | 60.9 | 48.8 | 93.0 | 305.1 | 209.0 | 1000.6 | 2321.3 |
| CGR (%) | -1.01 | -1.01 | -3.57 | 0.95 | -4.49 | 0.49 | 0.18 | 3.39 | -0.21 | -0.95 |

Source: Directorate of Employment and Training, Government of Tamil Nadu.

CGR- compound growth rate (annual);

Chennai ranks first in terms of the share in the organized sector employment (about 19 per cent), followed by Coimbatore with 8.53 percent, Vellore with 5.2 percent and Trichy with 5 percent. These four districts along with Salem, Madurai and Virudhunager account for more than 50 percent of total organized sector employment in the state (Table 1.23).

e. Employment in Unorganized Sector

The NSS data based estimates indicate a significant increase in the growth of employment in the unorganized sector during 1999-00 to 2006-07. Its share increased from 89.2 percent to 92.1 percent. In absolute term, the number of employment in the unorganized sector increased from 210.5 lakh to 233.9 lakh (i.e., 23.4 lakh increase). This increase was mainly due to the increase in employment in unregistered manufacturing, trade, hotels and construction firms (Table 1.24).

Table 1.23: District Share in Organized Sector Employment in 2007-08

| District | Employment | % | District | Employment | % |
|-------------------|----------------|---------------|----------------|------------|------|
| Chennai | 442628 | 18.95 | Dindigul | 65624 | 2.81 |
| Coimbatore | 199254 | 8.53 | The Nilgiris | 60237 | 2.58 |
| Vellore | 121539 | 5.20 | Tuticorin | 61704 | 2.64 |
| Trichy | 117442 | 5.03 | Villupuram | 41093 | 1.76 |
| Salem | 110506 | 4.73 | Sivagangai | 42257 | 1.81 |
| Madurai | 105678 | 4.53 | Pudukottai | 39983 | 1.71 |
| Virudhunagar | 95498 | 4.09 | Ramnad | 33882 | 1.45 |
| Krishnagiri | 92127 | 3.94 | Tiruvannamalai | 35453 | 1.52 |
| Tirunelveli | 88016 | 3.77 | Nagapattinam | 26709 | 1.14 |
| Kancheepuram | 84102 | 3.60 | Namakkal | 25487 | 1.09 |
| Cuddalore | 80960 | 3.47 | Theni | 25262 | 1.08 |
| Erode | 82080 | 3.51 | Perambalur | 8583 | 0.37 |
| Nagarcoil | 74200 | 3.18 | Karur | 14273 | 0.61 |
| Tiruvallur | 71938 | 3.08 | Thiruvarur | 13470 | 0.58 |
| Thanjavur | 64804 | 2.77 | Ariyalur | 10574 | 0.45 |
| Tamil Nadu | 2335363 | 100.00 | | | |

Source: Directorate of Employment and Training, Government of Tamil Nadu.

In 2006-07, the agriculture accounted for nearly 50 percent of unorganized sector employment, followed by manufacturing with 18 percent share and trade/hotels with 13.8 percent share. Thus, these sectors jointly provided 80 percent of total unorganized employment in the state.

Table 1.24: Projected Organized and Unorganized Sector Employment for 2006-07

(lakhs)

| Sectors | 1999-00 | | | 2006-07 | | |
|------------------------------|-----------|-------------|--------|-----------|-------------|--------|
| | Organised | Unorg. Sec. | Total | Organised | Unorg. Sec. | Total |
| Agriculture | 0.88 | 116.66 | 117.54 | 0.82 | 114.66 | 115.48 |
| Mining and Quarrying | 0.3 | 0.81 | 1.11 | 0.24 | 0.87 | 1.11 |
| Manufacturing | 7.1 | 36.05 | 43.15 | 5.23 | 43.25 | 48.48 |
| Electricity, Gas, Water | 0.81 | 0.02 | 0.83 | 0.65 | 0.18 | 0.83 |
| Construction | 0.61 | 11.22 | 11.83 | 0.48 | 16.06 | 16.54 |
| Trade, Hotel | 0.88 | 26.59 | 27.47 | 0.65 | 32.22 | 32.87 |
| Transport, Storage etc. | 3.1 | 7.52 | 10.62 | 2.68 | 10.81 | 13.49 |
| financial Services | 1.57 | 2.38 | 3.95 | 1.33 | 3.13 | 4.46 |
| Community, personal Services | 10.2 | 9.29 | 19.49 | 7.96 | 12.71 | 20.67 |
| Total | 25.45 | 210.54 | 235.99 | 20 | 233.94 | 253.94 |

Source: Directorate of Employment and Training, Government of Tamil Nadu.

f. Social Security Schemes

The Tamil Nadu Labour Welfare Board provides welfare services to workers in the organized sector while the Tamil Nadu Manual Workers Welfare Board and the Tamil Nadu Construction Workers Welfare Board provide services to unorganized sector workers. The state government has also constituted the following 12 Welfare Boards in order to effectively implement welfare schemes to unorganized sector workers:

- (i) Tamil Nadu Auto Rikshaw and Taxi Drivers Welfare Board,
- (ii) Tamil Nadu Watermen Welfare Board,
- (iii) Tamil Nadu Hair Dressers Welfare Board,
- (iv) Tamil Nadu Tailoring Workers Welfare Board,
- (v) Tamil Nadu Handicraft Workers Welfare Board,
- (vi) Tamil Nadu Palm Tree Workers Welfare Board,
- (vii) Tamil Nadu Handlooms and Handloom Silk Weaving Weavers Welfare Board,
- (viii) Tamil Nadu Footwear and Leather Goods Manufacturing and Tannery workers Welfare Board,
- (ix) Tamil Nadu Artists Welfare Board,
- (x) Tamil Nadu Goldsmiths Welfare Board,
- (xi) Tamil Nadu Pottery workers Welfare Board, and
- (xii) Tamil Nadu Domestic Workers Welfare Board.

During 2008-09, a sum of Rs. 17.41 crore was disbursed to workers under various welfare schemes of the Tamil Nadu Construction Workers Welfare Board and Rs. 60.65 crore under schemes of other welfare boards. Since September 2006, the registered manual workers of the Board have been given a pension of Rs. 700 p.m.; the government also has increased the maternity assistance to the registered female members from Rs. 4000 to Rs. 6000.

g. Employment Exchanges and Training

The state government provides employment services through the network of employment exchanges. There are 35 Employment Exchanges and the following Special Exchanges: (i) Professional and Executive Employment Office, Chennai, (ii) Employment Office for Unskilled Persons, Chennai, (iii) District Employment Office-Technical Personnel, Chennai, (iv) Coaching cum Guidance Centre for SC/ST (Cuddalore, Coimbatore, Trichy, Tirunelveli and Vellore), (v) Special Vocational Guidance Centre for Tribal Populations (Ooty), are currently functioning in the state. The details of number of persons registered with employment exchanges and the number of placements are shown in Table 1.25. As on 31st March 2009, 5.499 million people are seeking jobs.

Table 1.25: Registrations and Placements in Tamil Nadu

(000's)

| Year | Persons registered during the year | Placement during the year | Persons at the end of year |
|-------------|---|----------------------------------|-----------------------------------|
| 1996-97 | 611 | 25 | 5860 |
| 1997-98 | 743 | 35 | 3924 |
| 1998-99 | 771 | 25 | 4149 |
| 1999-00 | 645 | 24 | 5991 |
| 2000-01 | 622.5 | 18.2 | 4663 |
| 2001-02 | 568.6 | 15.6 | 4908 |
| 2002-03 | 412.1 | 8.6 | 5230.9 |
| 2003-04 | 439.7 | 31.6 | 4985.3 |
| 2004-05 | 483.3 | 17.7 | 3835.4 |
| 2005-06 | 636.9 | 16.2 | 3767.4 |
| 2006-07 | 1073 | 11.3 | 4338.8 |
| 2007-08 | 1060.1 | 37 | 4958.2 |
| 2008-09 | n.a | 23.2* | 5499.4 |
| 2009-10 | 1410.7* | | n.a |

Source: Directorate of Employment and Training, Govt of Tamil Nadu; * Performance Budget 2010-11, Labour and Employment Department, Government of Tamil Nadu; n.a - not available.

Table 1.26: Job Seekers by Education Levels

(000's)

| Educational Levels | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
|------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| S.S.L.C. | 1336.9 | 1485.9 | 1301.1 | 1376.1 | 1284.5 | 774.0 | 1200.8 |
| PUC | 882.2 | 1081.1 | 979.4 | 991.4 | 808.0 | 739.3 | 882.9 |
| Diploma | 169.4 | 264.1 | 393.4 | 375.5 | 193.0 | 234.0 | 242.2 |
| Graduates: Arts, Science, Commerce | 335.2 | 356.9 | 278.9 | 317.9 | 300.0 | 275.4 | 196.5 |
| Graduate: Medicine | 4.7 | 7.9 | 11.0 | 11.6 | 12.3 | 11.0 | 12.4 |
| Graduate: Engineering | 45.9 | 47.1 | 49.8 | 52.9 | 62.4 | 63.9 | 70.9 |
| Graduate: Others | 182.2 | 236.4 | 202.7 | 231.1 | 237.5 | 237.5 | 232.5 |
| PG: Arts, Science, Commerce | 63.1 | 85.0 | 86.1 | 94.3 | 98.8 | 100.1 | 113.8 |
| PG: Medicine | 0.0 | 0.0 | 0.1 | 0.1 | 0.3 | 0.7 | 0.8 |
| PG: Engineering | 0.3 | 5.8 | 5.9 | 6.1 | 6.4 | 6.7 | 7.3 |
| PG: Others | 76.8 | 58.2 | 74.5 | 76.0 | 18.0 | 19.4 | 88.2 |
| Total | 3096.7 | 3628.6 | 3383.0 | 3532.9 | 3021.1 | 2462.2 | 3048.4 |

Source: Directorate of Employment and Training, Government of Tamil Nadu.

Table 1.26 shows the number of educated persons seeking jobs through the employment exchanges from 2000 to 2006. In 2006, about 3 million educated persons were seeking jobs through the employment exchanges. Because of low or negative

growth of public sector employment, the employment exchanges are now targeting the private sector for securing placements. In every month, the second Friday is designated as private sector placement day. During 1st Jan 2003 to 31st March 2004, 9118 persons were placed in private jobs; in 2004 (1.1.2004 to 31.12.2004) 4813 persons were placed; during 1.1.2006 to 31.3.2009, 12834 persons were placed in private jobs.

h. Vocational Guidance

17 vocational guidance units are functioning in the state for the purpose of disseminating occupational and training information to the jobseekers registered with employment exchanges. Despite providing guidance at the time of registration, they provide group discussions, and career talks in schools and colleges. The details of guidance, group discussions and career talks given in schools are shown in Table 1.27.

Table 1.27: Vocational Guidance and Employment Counseling

| Year | Number of Persons received Guidance | | No. of Group discussions | No. of Career talks given in Schools etc. |
|-------------|--|---------------------|---------------------------------|--|
| | At the time of Registration | Individually | | |
| 2001-02 | 31352 | 57213 | 5538 | 1519 |
| 2002-03 | 44315 | 55755 | 6299 | 1696 |
| 2003-04 | 40586 | 54079 | 6283 | 1709 |
| 2005 | 38950 | 54979 | 4920 | 1477 |
| 2006 | 34457 | 37319 | 4419 | 859 |
| 2007 | 28888 | 32332 | 3842 | 594 |
| 2008 | 34784 | 37546 | 6939 | 931 |
| 2009* | 6015 | 6840 | 23 | 213 |

Source: Directorate of Employment and Training, Government of Tamil Nadu.; * up to 31st March.

Table 1.28: Self Employment Services through Employment Exchanges

| Year | Beneficiaries | Loan Amounts (Rs. Lakh) |
|-------------|----------------------|--------------------------------|
| 2001-02 | 728 | 397 |
| 2003-03 | 1496 | 756 |
| 2003-04 | 2196 | 788.43 |
| 2004-05 | 2249 | 886 |
| 2005-06 | 4122 | 1562.8 |
| 2007-08 | 7068 | n.a |
| 2008 | 7665 | n.a |
| 2009* | 359 | n.a |

Source: Directorate of Employment and Training, Government of Tamil Nadu ; * up to March; n.a – not available

In addition, the employment exchanges assist the registered candidates in getting loans from various National banks to set up self employment ventures. Details of beneficiaries and loan amounts from 2001 are given in Table 1.28.

i. Employment Training

In India, the vocational training for employment generation scheme was launched in January 2000 with the UNDP in four technical institutions including Trichy REC Science and Technology Entrepreneurs Park in Tamil Nadu. This project has facilitated the net works with about 100 institutions in the country. Further, the Training wing of Commissionerate of Employment and Training (of Tamil Nadu) implements the Craftsmen Training Scheme, Centre of Excellence Scheme, Apprentice Training Scheme, Modular Employable Scheme and Industrial Schools in to improve the skilled manpower.

Craftsmen Training Scheme

It aims to impart training to the early school leavers to acquire technical skills for gainful employment and to ensure a steady flow of skilled workforce to the Industry to meet the manpower requirement in different trades through vast networks of 60 Government Industrial Training Institutes (ITIs) and two Basic Training Centres. In addition, 605 private ITIs are functioning in the state. The training is imparted in 39 Engineering and 17 Non Engineering Trades. Under the Centre of Excellence scheme, training for 11 multi-skill sectors have been introduced to produce world-class craftsmen. The training period for the trades is ranging from 6 months to 3 years. 12 Government ITIs are functioning exclusively for women, one ITI for scheduled castes and one for scheduled tribes.

To meet the requirement of the Industries in their advancement in modern technology, new trades like mechanic Industrial Electronics, Mechanic Mechatronics, Information Technology & Electronic System Maintenance, Mechanic-Computer Hardware, Craftsmen Food Production (General), Litho Offset Mechanic Minder, Digital Photographer, Driver-cum-Mechanic, Data Entry operator, Network Technician, Lift Mechanic, Mechanic Auto Electrical & Electronics and Computer Aided Embroidery & Needle Work have been introduced in various Government Industrial Training Institutes.

Centre of Excellence Scheme

The Union government launched this scheme to upgrade 500 existing ITIs in the country into Centre of Excellence in five years at the rate of 100 ITIs per year. It provides Rs.1.6

crore per ITI to upgrade the facilities for offering multi skill training of world class. In Tamil Nadu, so far 19 Government ITIs have been upgraded under this scheme.

Up gradation under PPP Mode

Government of India has introduced a scheme of up-gradation of Government ITIs under Public Private Partnership (PPP) Scheme. This scheme facilitates an interest free loan of Rs.2.5 core to each of the selected IITs. 17 IITs in Tamil Nadu have benefited under this scheme and 12 ITIs are expected to benefit in 2009-10.

Apprenticeship Training Scheme

As per the provision of the Apprentice Act 1961, the employer is obliged to train certain number of apprentices assigned by the state apprentice adviser in the designated trades. The apprentices get shop floor training (1-4 years) in the establishments and the instruction classes are conducted in the related instruction centre established for the purpose. In Tamil Nadu, apprenticeship training is given in 158 trades in 2,324 industrial establishments and in 11 related instruction centres and 3 ITIs. As of now, 15,714 apprentices are undergoing training. During the training, the apprentices are given a minimum stipend of Rs.1,090/- per month by the establishments.

Industrial Schools

There are 987 Private Industrial schools functioning in Tamil Nadu, imparting (45 days to 3 years) training to the candidates (who studied 8-10 standards) in 110 trades like catering, tailoring, computer software, beauty culture, besides engineering and non-engineering trades.

Modular Employable Skill

The state Government provides the Modular Employable Skill training (for the first time in the country) for the school dropouts who do not have access to skill training in 60 government ITIs and 2 Basic Training Centres. 48,135 candidates have been given skill training at free of cost.

Overseas Manpower Corporation

Overseas Manpower Corporation Ltd (OMCL), Chennai assists the Indian job seekers in securing suitable placement in abroad. As of now, 16923 candidates are registered in this Corporation. Since its inception, the Corporation has deployed 7079 candidates. 710 candidates deployed during 2008-09. The beneficiaries are mostly skilled, semi-skilled and medical persons (Table 1.29).

Table 1.29: Overseas Man Power Deployed

| Year | 1996-97 | 1997-98 | 1998-99 | 1999-00 | 2001-01 | 2001-02 | 2002-03 |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Number | 209 | 233 | 258 | 117 | 113 | 115 | 71 |
| Year | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 |
| Number | 49 | 108 | 99 | 101 | 270 | 710 | 203 |

Source: Directorate of Employment and Training, Government of Tamil Nadu.

Orientation Skill Upgradation Training: Ministry of Overseas Indian Affairs has introduced this scheme with 100 percent financial support. Under the scheme, the Government IITs provide 15 days training to the intending emigrants in their respective trades to make them to be very competitive in the overseas job market. In 2008-09, the OMCL trained 7,025 candidates. Countries like USA, UK and Australia need nurses, physiotherapist etc with international standard in spoken, writing and listening skill in English language. The OMCL along with M/s Aspire Career Development Academy provides training in IELTS.

j. Prime Minister's Rozgar Yojana Scheme (PMRY)

This scheme was launched by Government of India on 2nd October 1993 with following objective: (i) to provide self-employment opportunities to educated unemployed youth, (ii) to arrange assistance to bank loan through the district industries centres; and (iii) to create employment generation through the small enterprises. The Department of Industries and Commerce was the nodal agency for implementing the scheme in Tamil Nadu. Those with (i) 8th standard pass and undergone government sponsored technical course for a minimum duration of 6 months and aged between 18-35 years (18-45 for SC/ST, Women and physically handicapped), (ii) permanent residence in the area for at least 3 years and (iii) family income not exceeding Rs. 40,000 are eligible to avail the facility under this scheme.

Other features of the scheme are: (i) all economically viable activities other than direct agricultural activities are covered under the scheme; (ii) maximum loan is Rs.2 lakh for industries and service sectors and Rs. 1 lakh for business sector; (iii) the scheme envisages reservation of 22.5 percent to SC/ST and 27 percent to OBCs; (iv) it facilitates a subsidy at the rate of 15 percent of the project cost subject to a maximum of Rs.7500, (v) it provides 15 days industrial sector training to candidates with a stipend of Rs. 300 per candidate and 10 days training relating to services and business sector with a stipend of Rs. 150, and (vi) self help groups with 5 to 20 numbers are also eligible for PMRY loan, if they meet other eligibility criteria.

k. Prime Minister's Employment Generation Programme (PMEGP)

Government of India introduced a credit linked subsidy scheme called Prime Minister's Employment Generation Programme (PMEGP) in 2008 by merging Prime Minister's Rozgar Yojana Scheme and Rural Employment Generation Programme (REGP). This scheme aims at empowering the first generation entrepreneurs to set up micro enterprises. This scheme provides for loans up to Rs.10 lakh to set up service enterprises and up to Rs.25 lakh to set up manufacturing enterprises. At national level, the Khadi and Village Industries Commission (KVIC) acts as the nodal agency. At the state level, the scheme is implemented through State Khadi and Village Industries Commission (KVIC), Tamil Nadu Khadi and Village Industries Board (KVIB) and District Industries Centre (DIC) through Banks. Details of targets and achievement of the scheme in Tamil Nadu in 2009-10 are given in Table 1.30.

Table 1.30: Targets and Achievements of PMEGP

| Implementing Agency | Targets | | | Sanctioned | |
|---|----------------|--------------------------------|------------------------------|-------------------|--------------------------------|
| | Numbers | Margin Money (Rs. Lakh) | Employment Generation | Numbers | Margin Money (Rs. Lakh) |
| District Industries Center | 2890 | 2060.96 | 28900 | 3088 | 5012 |
| Khadi and Village Industries Commission | 2456 | 1807.12 | 24560 | 951 | 3125.11 |
| Khadi and Village Industries Board | 1575 | 1123.43 | 15750 | 825 | 1179.6 |
| Total | 6921 | 4991.51 | 69210 | 4864 | 9316.71 |

Source: Government of Tamil Nadu (2010), Policy Note 2010-11, Micro, Small and Medium Enterprises Department.

I. Swarnjayanti Gram Swarozgar Yojana (SGSY)

The Swarnjayanti Gram Swarozgar Yojana (SGSY) was launched in April 1999 after restructuring the Integrated Rural Development Programme (IRDP) and allied programmes. It is only Self Employment Programme currently being implemented for the rural poor. The objective of the SGSY is to bring the assisted swarozgaris above the poverty line by providing them income generating assets through bank credit and Government subsidy. The scheme is being implemented on cost sharing basis of 75:25 between the Centre and States.

The SGSY fund is used to provide subsidy for the revolving fund and economic assistance to Self Help Groups (SHGs). Part of the Scheme component is also utilized for

formation of groups and conduct of training for their basic orientation and skill up-gradation. Up to 20 percent of the total allocation can also be spent on putting up of infrastructure required for promotion of activities of SHGs. The SHGs, after the first grading, are provided with a revolving fund of Rs.50,000 for first linkages (bank loan of Rs.50,000 and Rs.10,000 as subsidy) Rs.1 lakh for second linkages and Rs.1.5 lakh for third and subsequent linkages. After the second grading, the successful groups are provided with economic assistance, the maximum eligible subsidy being 50 percent of the project cost with a ceiling of Rs.1.25 lakh.

Up to December 2007, 27.37 lakh self-help groups (SHGs) have been formed and 93.21 lakh swarozgaris have been assisted. In 2008-09 a sum of Rs.125.16 crores has been allocated for the implementation of this scheme with a credit target of Rs.182.42 crores. Although the scheme was monitored by Director of Rural Development and Panchayat Raj, the Managing Director, Tamil Nadu Cooperation for Development of Women is currently monitoring this scheme along with Mahalir Thittam and Vazhundhu Kattuvom Project which are also focusing on the empowerment of women. Year wise financial allocation under this scheme is shown in the following Table 1.31.

Table 1.31: Financial Allocations under SGSY in Tamil Nadu

(Rs. crore)

| Year | 2000 - 01 | 2001 - 02 | 2002 - 2003 03 04 | 2003 - 2004 04 05 | 2004 - 2005 05 06 | 2005 - 2006 06 07 | 2006 - 2007 07 08 | 2007 - 2008 08 09 | 2008 - 2009 09 10 |
|------------|--------------|--------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Allocation | 62.52 | 36.17 | 36.17 | 49.97 | 62.56 | 62.56 | 69.39 | 105.87 | 125.16 |

Source: Government of Tamil Nadu (2010), Rural Development and Panchayat Raj Department (Website).

The district wise allocations under SGSY in 2009-10 are shown in Table 1.32

Table 1.32: District Wise Allocation under Swarna Jayanthi Gram Swarozgar Yojana (as on 31.12.2009)

(Rs. Lakh)

| Districts | Central Share (75%) | State Share (25%) | Total | Districts | Central Share (75%) | State Share (25%) | Total |
|----------------|---------------------|-------------------|---------|----------------|---------------------|-------------------|-----------------|
| Kancheepuram | 442.69 | 147.56 | 590.25 | Tiruchirapalli | 294.89 | 98.3 | 393.19 |
| Tiruvallur | 366.18 | 122.05 | 488.23 | Karur | 187.57 | 62.52 | 250.09 |
| Cuddalore | 401.32 | 133.77 | 535.09 | Ariyalur | 163.01 | 28.33 | 191.34 |
| Villupuram | 793.18 | 264.39 | 1057.57 | Perambalur | 95.75 | 31.92 | 127.67 |
| Vellore | 672.88 | 224.29 | 897.17 | Pudukottai | 248.17 | 82.72 | 330.89 |
| Tiruvannamalai | 425.99 | 142 | 567.99 | Madurai | 348.81 | 116.27 | 465.08 |
| Salem | 449.44 | 149.81 | 599.25 | Theni | 180.69 | 60.23 | 240.92 |
| Namakkal | 253.12 | 84.3 | 337.42 | Dindigul | 303.53 | 101.18 | 404.71 |
| Dharmapuri | 250.2 | 83.4 | 333.6 | Ramanathapuram | 226.78 | 75.59 | 302.37 |
| Krishnagiri | 272.76 | 90.92 | 363.68 | Virdhunagar | 274.46 | 91.49 | 365.95 |
| Erode | 244.66 | 81.5 | 326.16 | Sivagangai | 223.9 | 74.63 | 298.53 |
| Coimbatore | 279 | 93 | 372 | Tirunelveli | 426.16 | 142.05 | 568.21 |
| The Nilgiris | 76.37 | 25.46 | 101.83 | Tuticorin | 320.97 | 106.99 | 427.96 |
| Thanjavur | 394.41 | 131.47 | 525.88 | Kanniyakumari | 211.98 | 70.66 | 282.64 |
| Nagapattinam | 257.89 | 90 | 347.89 | Tiruppur | 267.6 | 89.2 | 356.8 |
| Tiruvarur | 272.66 | 90.89 | 363.55 | State | 9627.02 | 3186.89 | 12813.91 |

1.7 Poverty in Tamil Nadu⁷

Poverty is a multidimensional concept. It refers to lack of access to the basic needs of food, shelter, security, education, health services, safe drinking water, and sanitation for a decent, normal and effective existence. Conventional measures of poverty, however, are narrowly defined making reference to a poverty line based on income thresholds consistent with a certain level of consumption of food. Given the poverty line, various indicators are used to measure the incidence of poverty such as head count or poverty ratio, poverty gap index, squared poverty gap, Sen index, Kakwani index, Takayama index, Foster, Greer, and Thorbecke (FGT) index.

⁷ This section is primarily based on my earlier work with Dr. D. K. Srivastava and Dr. C. Bhujanga Rao. I am thankful to them for allowing me to use a few tables prepared for the earlier study.

The head count ratio (HCR), giving the number of poor as percent of the total population is the most frequently used summary measure of poverty. It measures the incidence of poverty. However, it does not make any distinction within the broad category of the poor on the basis of their actual levels of consumption and deprivation. The Poverty Gap Index (PGI), a widely used measure to capture the depth and severity of poverty, measures the magnitude of the effort that would be required to raise the consumption level of all the persons below the poverty line to the consumption level of the poverty line. Other measures of poverty take into account distributional considerations within the population of poor with alternative weighting schemes.

The HCR and PGI are rooted in calorie consumption and they ignore longevity, access to health services, nutrition status, education, access of safe drinking water and sanitation. The UNDP has formulated a composite index called the Human Poverty Index (HPI) containing four indicators: (i) proportion of population not expected to survive beyond 40 years, (ii) adult illiteracy rate, (iii) percentage of population without sustainable access to an improved water source, and (iv) percentage of children aged 5 or below who are underweight for their age. We consider the HCR, the PGI and HPI to analyze the poverty in Tamil Nadu.

a. Poverty Line

Poverty line is critical in measuring the incidence of poverty. A person is defined as poor if his/her average income/consumption is less than a pre determined threshold. According to the Planning Commission estimates, the rural poverty line for Tamil Nadu was equal to Rs. 196.53 in 1993-94 and Rs. 351.86 in 2004-05 (Table 1.33). In terms of purchasing power parity dollars (PPP \$ = Rs. 7.02 in 1993), these figures translate into 0.93 PPP \$ per day per capita in both the years 1993-94 and 2004-05 (see Appendix 1.1). The urban line was estimated at Rs. 296.63 in 1993-94 and Rs. 547.42 in 2004-05. These values translate into 1.41 PPP \$ and 1.44 PPP \$.

Table 1.33: Poverty Line in Tamil Nadu and All-India

(Rs. per capita per month at current prices)

| Years | Rural | | Urban | |
|---------|------------|-----------|------------|-----------|
| | Tamil Nadu | All India | Tamil Nadu | All India |
| 1973-74 | 45.09 | 49.63 | 51.54 | 56.76 |
| 1977-78 | 56.62 | 56.84 | 67.02 | 70.33 |
| 1983 | 96.15 | 89.90 | 120.30 | 115.65 |
| 1987-88 | 118.23 | 115.20 | 165.82 | 162.16 |
| 1993-94 | 196.53 | 205.84 | 296.63 | 281.35 |
| 1999-00 | 307.64 | 327.56 | 475.60 | 454.11 |
| 2004-05 | 351.86 | 356.30 | 547.42 | 538.60 |

Source: Planning Commission and Government of India, Press Information Bureau.

In 1993-94, the average Indian poverty line was estimated at Rs. 205.84 per capita per month for rural and Rs. 281.35 for urban areas. In 2004-05, it was equal to Rs. 356.3 (= Rs.198 in 1993-94 prices) in rural and Rs. 538.6 (= Rs. 299 in 1993-94 prices) in urban areas. In terms of purchasing power parity dollars, per day rural poverty line for the country declined from 0.98 PPP \$ to 0.94 PPP \$ and per day average urban poverty line increased from 1.34 PPP \$ to 1.42 PPP \$. If we take the average figure for the country, the Indian poverty line is close to the international poverty line used by the World Bank (Bhalla, 2005). It is observed that rural poverty line for Tamil Nadu was slightly lower than the average rural line for the country while urban line for Tamil Nadu was slightly higher than the average line for the nation. In their recent study Chen and Ravallion (2008) demonstrate that the past PPPs had underestimated the cost of living in developing countries like India. Therefore, the true incidence of poverty may be higher than what is implied by these poverty lines.

b. Progress in Reducing HCR in Tamil Nadu

In order to evaluate the progress made by Tamil Nadu, it is useful to compare the progressive reduction in poverty in terms of the Head Count Ratio (HCR) in Tamil Nadu over time as well as in comparison to other southern states in India. We review the progress in poverty by examining rural, urban, and combined incidence of poverty.

Table 1.34 summarises the improvement in the poverty profile in Tamil Nadu over time. Apart from the HCR, it also gives the number of poor persons in the rural, urban and combined categories since from 1973-74. During the period 1973-74 to 2004-05, the number of total poor declined from 2.4 crore to nearly 1.46 crore. However, all of this reduction in the number of poor comes from rural areas. The number of urban poor actually increased over time in absolute terms reaching a peak of 80.4 lakh in 1993-94. After 1993-94, there was a reduction in the number of urban poor but even in 2004-05

the absolute number of urban poor was larger than that in 1973-74. There is discernable pattern of increasing urbanisation of poverty in Tamil Nadu, measured by the number of urban poor to total poor. This percentage increased from nearly 30 in 1973-74 to 47.5 in 2004-05. This was largely due to migration of poor from rural to urban areas.

Table 1.34: Poverty in Tamil Nadu: 1973-74 to 2004-05

| Years | Rural | | Urban | | Combined | | % of Urban Poor to Total |
|---------|-----------------------|--------------|-----------------------|--------------|-----------------------|--------------|--------------------------|
| | No. of Persons (Lakh) | % of Persons | No. of Persons (Lakh) | % of Persons | No. of Persons (Lakh) | % of Persons | |
| 1973-74 | 172.60 | 57.43 | 66.92 | 49.40 | 239.52 | 54.94 | 27.94 |
| 1977-78 | 182.50 | 57.88 | 72.97 | 46.69 | 255.47 | 54.79 | 28.56 |
| 1983 | 181.61 | 53.99 | 78.46 | 46.96 | 260.07 | 51.66 | 30.17 |
| 1987-88 | 161.80 | 45.80 | 69.27 | 38.64 | 231.07 | 43.39 | 29.98 |
| 1993-94 | 121.70 | 32.48 | 80.40 | 33.77 | 202.10 | 35.03 | 39.78 |
| 2004-05 | 76.50 | 22.80 | 69.13 | 22.20 | 145.62 | 22.50 | 47.47 |

Source (Basic Data): Government of India, Press Information Bureau.

Chart 1.5 indicates the progress in reducing the head count ratio in Tamil Nadu for rural, urban and combined. It will be noted that the urban poverty HCR exceeded that of the rural poverty HCR during the nineties and even in 2004-05 it is marginally higher than the rural poverty HCR.

Chart 1.5: Head Count Ratios in Tamil Nadu and Urban Poor as % of Total Poor

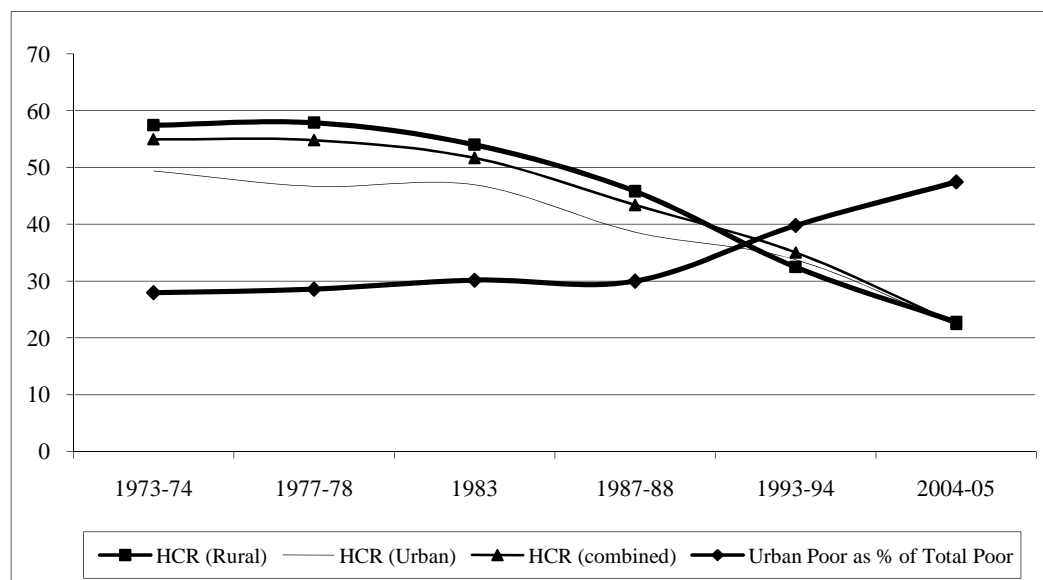


Chart 1.5 also shows the percent of urban poor in the total poor in Tamil Nadu. The sharp change in the slope is clearly discernable in 1987-88 after which the urban poor in the total poor accounted for a progressively increasing share so that by 2004-05 the urban poor are nearly half of the total poor.

Table 1.35 gives the progress in reducing rural poverty in Tamil Nadu as well as other southern states as measured by the HCR in 1993-94 and 2004-05. Tamil Nadu was successful in reducing the combined poverty. Its combined HCR declined from 35.03 percent in 1993-94 to 22.5 percent in 2004-05, registering 12.53 percentage points decline. During the same period, the All India HCR (combined) declined by only 8.47 percentage points (i.e., from 35.97 to 27.5 percent). It is noted that the combined HCR for Tamil Nadu was higher than that for Andhra Pradesh (15.8 percent) and Kerala (15 percent).

Table 1.35: Poverty Head Count Ratio in Southern States: Rural, Urban and Combined

| States | 1993 -94 | 2004 -05 | Reduc- tion | 1993 -94 | 2004 -05 | Redu- ction | 1993 -94 | 2004 -05 | Reduction |
|-------------------|--------------|-------------|----------------|--------------|-------------|----------------|--------------|-------------|-----------|
| | Rural | | | Urban | | | Combined | | |
| Andhra Pradesh | 15.92 | 11.2 | 4.72 | 38.33 | 28 | 10.33 | 22.19 | 15.8 | 6.39 |
| Karnataka | 29.88 | 20.8 | 9.08 | 40.14 | 32.6 | 7.54 | 33.16 | 25 | 8.16 |
| Kerala | 25.76 | 13.2 | 12.56 | 24.55 | 20.2 | 4.35 | 25.43 | 15 | 10.43 |
| Tamil Nadu | 32.48 | 22.8 | 9.68 | 39.77 | 22.2 | 17.57 | 35.03 | 22.5 | 12.53 |
| All India | 37.27 | 28.3 | 8.97 | 32.36 | 25.7 | 6.66 | 35.97 | 27.5 | 8.47 |

Source (Basic Data): Government of India, Press Information Bureau.

Tamil Nadu was highly successful in bringing down the urban poverty. The urban HCR for Tamil Nadu declined from 39.77 percent to 22.2 percent during 1993-94 to 2004-05 (i.e., declined by 17.57 percentage points). During the same period, the urban HCR for the country declined only by 6.66 percentage points. Among the southern states, Tamil Nadu stands next only to Kerala. Although the rural HCR for Tamil Nadu was lower than that for the country, it was the highest among the southern states in 2004-05.

c. Poverty Gap Ratio

As the poverty ratio does not make any distinction within the broad category of poor on the basis of their actual levels of consumption/deprivation, the PGI measures the total shortfall of consumption below the poverty line, per capita of the total population. During 1993-94 to 1999-00, there was a sharp decline of PG index for rural Tamil Nadu of 4.5 percentage points decline (adjusted estimates). The urban Index also declined by 2.5

percentage points. In 1999-00, both urban and rural indices for Tamil Nadu were lower than that for the nation (Table 1.36). Thus, the depth and severity of poverty has declined as fast as incidence of poverty.

Table 1.36: Poverty Gap Estimates: Selected States

(Percent)

| Details | Official Methodology | | Adjusted Estimates | |
|-------------------------|----------------------|------------|--------------------|------------|
| | 1993-94 | 1999-00 | 1993-94 | 1999-00 |
| Rural | | | | |
| Andhra Pradesh | 2.9 | 1.8 | 5.8 | 4.8 |
| Karnataka | 6.3 | 2.7 | 8.6 | 6.1 |
| Kerala | 5.6 | 1.5 | 3.9 | 1.7 |
| Tamil Nadu | 7.3 | 3.8 | 9.1 | 4.6 |
| All India: Rural | 8.4 | 5.2 | 7.0 | 5.2 |
| Urban | | | | |
| Andhra Pradesh | 9.3 | 5.6 | 3.4 | 1.9 |
| Karnataka | 11.4 | 5.6 | 4.5 | 2.1 |
| Kerala | 5.5 | 3.9 | 2.7 | 1.7 |
| Tamil Nadu | 10.2 | 4.8 | 4.5 | 2.0 |
| All India: Urban | 8.3 | 5.2 | 3.7 | 2.3 |

Source: Deaton and Dreze (2002). Note: The poverty gap indexes labelled "official methodology" are computed from the unit record data using the official poverty lines, and using rules for assigning poverty gap indexes to small states (and to Jammu & Kashmir) that mirror the rules used by the Planning Commission for computing the official head count ratios. The adjusted indexes use the recomputed price indexes to update the poverty lines, and correct for the changes in questionnaire design in the 55th Round. All numbers are directly computed from poverty lines and unit record data for each state, and the all India estimates are calculated as weighted averages of the state estimates.

d. Human Poverty Index

The Planning Commission (2002) has provided the HPI values for major states using the following indicators that reflect the Indian conditions: (i) proportion of population not expected to survive beyond 40 years; (ii) a composite indicator on educational deprivation made up of (a) proportion of illiterate persons among those aged 7 and above, and (b) proportion of children in the age group (6-18 years) not enrolled in school; (iii) a composite indicator on economic deprivation made up of (a) proportion of population below the poverty line, (b) proportion of population not getting medical attention at birth {or proportion of children in the age group (12-23 months) not fully vaccinated}, (c) proportion of population living in kutcha houses, and (d) proportion of population not having access to basic amenities, including access to safe drinking water, sanitation and electricity. Table 1.37 shows the HPI for the year 1981 and a comparable Index for 1991.

Table 1.37: Human Poverty Index

| States | <i>HPI 1981</i> | | | | | |
|---------------------------------------|-----------------|-----------|-------------|-------------|-------------|-----------|
| | Rural | | Urban | | Combined | |
| | Value | Rank | Value | Rank | Value | Rank |
| Andhra Pradesh | 56.2 | 23 | 30.0 | 24.0 | 50.1 | 20 |
| Karnataka | 50.1 | 15 | 27.4 | 21.0 | 34.0 | 15 |
| Kerala | 34.2 | 6 | 22.8 | 9.0 | 32.1 | 6 |
| Tamil Nadu | 49.2 | 14 | 25.3 | 15.0 | 42.1 | 14 |
| All India | 53.3 | | 27.2 | | 47.3 | |
| <i>HPI 1991: Comparable with 1981</i> | | | | | | |
| Andhra Pradesh | 45.0 | 19 | 24.8 | 26.0 | 39.8 | 19 |
| Karnataka | 37.5 | 15 | 20.7 | 20.0 | 32.7 | 15 |
| Kerala | 21.8 | 2 | 14.4 | 4.0 | 19.9 | 4 |
| Tamil Nadu | 34.0 | 13 | 18.7 | 16.0 | 29.3 | 12 |
| All India | 44.8 | | 22.0 | | 39.4 | |

Source: Human Development Report, Planning Commission (2002).

The state wise HPI values provided by UNDP (2007) for 1990 and 2000 are shown in Table 1.38. Strictly speaking, values in Table 1.35 and in Table 1.38 are not comparable. However, they provide a rough idea about how the HPI for Tamil Nadu has declined over the years. The HPI for Tamil Nadu was 42.1 in 1981 and declined to 29.3 in 1991 and then to 22.9 in 2000. It is noted that the HPI for Tamil Nadu was significantly low as compared to All India figure in all years.

Table 1.38: State Wise Human Poverty Index

| States | 1990 | 2000 | States | 1990 | 2000 |
|----------------|-------|-------|-------------------|--------------|--------------|
| Andhra Pradesh | 43.56 | 30.49 | Maharashtra | 35.99 | 27.57 |
| Assam | 46.82 | 39.55 | Orissa | 48.17 | 41.43 |
| Bihar | 57.46 | 46.40 | Punjab | 37.08 | 25.18 |
| Gujarat | 34.67 | 28.34 | Rajasthan | 49.57 | 37.79 |
| Haryana | 37.60 | 30.06 | Tamil Nadu | 33.07 | 22.91 |
| Karnataka | 39.27 | 29.04 | Uttar Pradesh | 52.17 | 42.17 |
| Kerala | 19.56 | 11.77 | West Bengal | 41.30 | 32.44 |
| Madhya Pradesh | 49.68 | 39.21 | India | 43.65 | 33.63 |

Source: UNDP (2007).

e. Progress towards Achieving Poverty Target

The Eleventh Plan target calls for reducing the poverty ratio to 17 percent at the end of Plan period. Our projection in Table 1.39 indicates that Tamil Nadu is well on track to cut poverty.

Table 1.39: Poverty Reduction Targets in Tamil Nadu

| Details | Value in 1993-94 | Value in 2004-05 | Annual Growth Rate (%) | Target Value in 2011-12 | Projected Value in 2011-12 | Status |
|---------------|---------------------|---------------------|------------------------------|-------------------------------|----------------------------------|-----------|
| Poverty Ratio | 35.03 | 22.5 | -0.0394 | 17 | 16.98 | On-track |
| Rural Poverty | 32.48 | 22.8 | -0.0317 | 17 | 18.20 | Off-track |
| Urban Poverty | 39.8 | 22.2 | -0.0516 | 17 | 15.32 | On-track |

Source: Computed by author.

f. Incidence of Poverty: District Profile

Census of households below poverty line (BPL) was launched in states and union Territories in 1992. Data from BPL Census have been used variously by the Government for poverty alleviation programmes. The Expert Group for the purpose of BPL Census 2002 has laid down the methodology for the identification of households below poverty line. At present BPL enumeration in the states is based on this. If we look at the percentage of BPL population in a district to total rural population in that district (Table 1.40), then the largest district poverty head count ratio is shown for Ramanathapuram at close to 60 percent followed by Madurai at 42.8 percent. Perambalur with a BPL head count ratio of 39.5 percent is third followed by Krishnagiri at 37 percent and Kanchipuram and Sivagangai at 35 percent each.

Another way of looking at BPL population is to take the number of persons below poverty line in a district to total number of BPL persons in all districts in Tamil Nadu. This gives the share of BPL population in a district to total BPL population in all districts. A poverty alleviation programme needs to be directed towards those districts where the absolute numbers of poor are larger. The share of BPL population in total population indicates this kind of priority because it is the product of share of rural population of a district in total rural population in all districts and the share of head count ratio of BPL population in the total population of the concerned state. In other words, the share of BPL population in total population will be higher, the higher is the size of the village in terms of total population and the higher is the head count ratio of BPL population in that village. As such, Vellore is the most disadvantaged district followed by Villupuram and Thiruvannamalai. The next two districts in the share of BPL population are Coimbatore and Salem (Table 1.40).

Table 1.40: Percentage of BPL to Rural and Total (BPL) Population

| Districts | No. of Rural Families | Rural Population | Rural as % of Total rural in TN | No. of BPL Families | BPL Population | % of BPL to Rural Population | % of BPL population to Total BPL in TN |
|-----------------|-----------------------|------------------|---------------------------------|---------------------|-----------------|------------------------------|--|
| Coimbatore | 542186 | 1731341 | 4.94 | 188888 | 566170 | 32.7 | 5.04 |
| Cuddalore | 453252 | 1388568 | 3.96 | 145440 | 424646 | 30.6 | 3.78 |
| Dharmapuri | 290659 | 1462935 | 4.18 | 93990 | 426962 | 29.2 | 3.80 |
| Dindigul | 347787 | 988435 | 2.82 | 110915 | 292897 | 29.6 | 2.61 |
| Erode | 453645 | 1558162 | 4.45 | 141221 | 427891 | 27.5 | 3.81 |
| Kanchipuram | 405860 | 1291567 | 3.69 | 141008 | 452497 | 35 | 4.03 |
| Kanniyakumari | 167176 | 365624 | 1.04 | 48467 | 102238 | 28 | 0.91 |
| Karur | 176841 | 587905 | 1.68 | 72352 | 217729 | 37 | 1.94 |
| Krishnagiri | 356976 | 1338806 | 3.82 | 115320 | 395523 | 29.5 | 3.52 |
| Madurai | 303333 | 926571 | 2.65 | 139395 | 396574 | 42.8 | 3.53 |
| Nagapattinam | 282648 | 898600 | 2.57 | 87284 | 266961 | 29.7 | 2.38 |
| Namakkal | 307018 | 953257 | 2.72 | 96168 | 269567 | 28.3 | 2.40 |
| Perambalur | 335647 | 920614 | 2.63 | 153554 | 364098 | 39.5 | 3.24 |
| Pudukkottai | 335291 | 1455924 | 4.16 | 117378 | 459483 | 31.6 | 4.09 |
| Ramanathapuram | 146369 | 527571 | 1.51 | 95205 | 314110 | 59.5 | 2.80 |
| Salem | 559368 | 1899678 | 5.42 | 187251 | 546621 | 28.8 | 4.87 |
| Sivagangai | 235303 | 912644 | 2.61 | 90344 | 319284 | 35 | 2.84 |
| Thanjavur | 424442 | 1422628 | 4.06 | 149598 | 476529 | 33.5 | 4.24 |
| The Nilgiris | 99887 | 276512 | 0.79 | 34758 | 80758 | 29.2 | 0.72 |
| Theni | 158873 | 421007 | 1.20 | 51712 | 136574 | 32.4 | 1.22 |
| Tiruchirapalli | 362222 | 1391399 | 3.97 | 120996 | 427266 | 30.7 | 3.81 |
| Thirunelveli | 421700 | 1148640 | 3.28 | 158050 | 374054 | 32.6 | 3.33 |
| Thiruvallur | 371075 | 1427110 | 4.08 | 130718 | 456586 | 32 | 4.07 |
| Thiruvannamalai | 472173 | 1971075 | 5.63 | 152486 | 586845 | 29.8 | 5.23 |
| Thiruvarur | 277664 | 870266 | 2.49 | 103244 | 286633 | 32.9 | 2.55 |
| Tuticorin | 288396 | 1047585 | 2.99 | 94056 | 310329 | 29.6 | 2.76 |
| Vellore | 594028 | 2598878 | 7.42 | 200925 | 810725 | 31.2 | 7.22 |
| Villupuram | 563285 | 1925205 | 5.50 | 198098 | 663435 | 34.5 | 5.91 |
| Virudhunagar | 399392 | 1312203 | 3.75 | 113733 | 374693 | 28.6 | 3.34 |
| Total | 10132496 | 35020710 | 100.00 | 3532554 | 11227678 | 32.1 | 100.0 |

Source: Ministry of Rural Development, Government of India and Government of Tamil Nadu.

There are specific disadvantaged groups within the BPL population such as SC, ST and OBCs as also the landless. In Coimbatore for example nearly 11 percent of the BPL population belongs to SC category and nearly 14.5 percent belong to OBCs (Table 1.41). This is another kind of targeting tool that can be made use of when targeting is to be done within a district.

Table 1.41: District Wise Share of Selected Groups in BPL Population: 2002

(Percent)

| Districts | BPL Details | | | | | |
|-----------------|--------------|-------------|--------------|-------------|--------------|----------------|
| | SC | ST | OBC | Others | Landless | IAY - Landless |
| Coimbatore | 10.99 | 0.92 | 14.45 | 7.00 | 28.46 | 29.40 |
| Cuddalore | 15.84 | 0.38 | 15.45 | 2.40 | 29.12 | 24.80 |
| Dharmapuri | 5.16 | 1.05 | 8.65 | 3.81 | 15.54 | 16.34 |
| Dindigul | 10.82 | 0.30 | 19.26 | 7.22 | 30.54 | 32.78 |
| Erode | 11.84 | 0.82 | 18.07 | 2.21 | 28.90 | 26.12 |
| Kanchipuram | 14.90 | 1.11 | 11.10 | 3.67 | 26.64 | 18.07 |
| Kanniyakumari | 3.23 | 0.54 | 28.79 | 14.00 | 33.08 | 38.20 |
| Karur | 10.97 | 0.13 | 17.54 | 4.43 | 25.47 | 25.78 |
| Krishnagiri | 6.23 | 1.63 | 11.24 | 7.75 | 20.61 | 27.10 |
| Madurai | 12.88 | 0.11 | 14.30 | 7.81 | 31.55 | 30.33 |
| Nagapattinam | 16.03 | 0.99 | 13.64 | 2.03 | 26.41 | 22.45 |
| Namakkal | 13.52 | 1.72 | 17.44 | 2.71 | 26.04 | 28.14 |
| Perambalur | 12.34 | 0.71 | 18.00 | 10.76 | 27.43 | 31.18 |
| Pudukkottai | 8.19 | 0.00 | 8.37 | 8.98 | 15.57 | 12.72 |
| Ramanathapuram | 8.51 | 0.07 | 11.59 | 9.56 | 16.22 | 18.49 |
| Salem | 7.68 | 2.01 | 21.39 | 2.93 | 25.12 | 27.70 |
| Sivagangai | 7.92 | 0.02 | 16.56 | 3.72 | 19.07 | 18.02 |
| Thanjavur | 10.22 | 0.28 | 13.74 | 6.88 | 28.23 | 23.27 |
| The Nilgiris | 9.08 | 4.53 | 11.50 | 15.18 | 35.65 | 41.34 |
| Theni | 11.11 | 0.30 | 19.55 | 6.91 | 37.86 | 27.07 |
| Tiruchirapalli | 8.37 | 0.28 | 12.36 | 7.31 | 21.48 | 20.91 |
| Thirunelveli | 12.95 | 0.30 | 21.75 | 6.94 | 35.43 | 35.77 |
| Thiruvallur | 12.43 | 1.86 | 10.81 | 3.53 | 20.59 | 16.52 |
| Thiruvannamalai | 7.46 | 1.87 | 14.61 | 2.02 | 19.14 | 20.00 |
| Thiruvarur | 18.63 | 0.10 | 12.10 | 5.04 | 30.50 | 25.89 |
| Tuticorin | 10.74 | 0.07 | 12.12 | 7.37 | 26.02 | 24.78 |
| Vellore | 8.00 | 1.18 | 13.02 | 2.58 | 20.53 | 18.26 |
| Villupuram | 10.80 | 1.45 | 14.93 | 2.56 | 19.79 | 21.14 |
| Virudhunagar | 9.81 | 0.00 | 12.05 | 8.50 | 24.86 | 28.39 |
| Total | 10.47 | 0.86 | 14.46 | 5.31 | 24.46 | 23.79 |

Source: Ministry of Rural Development, Government of India and Government of Tamil Nadu.

1.8 Agriculture: Key Issues

The agriculture is still a major sector providing livelihood to more than 50 percent of people in the state. During 1997-98 to 2008-09, it grew only at 2.3 percent per annum. Further, the growth of this sector is highly volatile / inconsistent because of its vulnerability to a number of factors like rain fall, price policies etc., Accelerating the

growth of this sector will have a strong impact on the economy as it has backward as well as forward linkages with other sectors of the economy. The growth of this sector is also vital for food security, poverty alleviation and controlling inflation. Realizing the importance of this sector, the State Planning Commission (2008) in its Eleventh Five Year Plan (2007-12) has set a 4 percent growth target for this sector.

Tamil Nadu is a water scarce state with per capita (annual) water availability of about 900 cubic meters as against the all-India average of 2200 cubic meters. The normal (annual) rainfall is 925 millimeters (mm) as against the average rainfall of 1100 mm of the country. The historical data on rainfall reveals that rainfall received by the state is highly variable and drought conditions prevail in three out of 10 years.

Net sown area continued to decline from (61.69 lakh ha.) 47.4 percent of total area in 1970-71 to 38.9 percent (50.62 lakh ha.) in 2007-08 due to increased urbanization and drought. The state has a net irrigated area of 2.864 million ha. (2007-08). Its irrigation intensity is relatively low as compared to the all-India average. Approximately 55 percent of the net irrigated area is irrigated by well water and the remaining by canals, tanks and other sources such as streams and springs. As the surface irrigation potential has been virtually exhausted, modernizing/rehabilitating existing systems is crucial to improve the efficiency of surface irrigation in the state. Most of the canals in the state are old and have very poor efficiency as a result of seepage and silting in the canals. Groundwater irrigation increased due to rural electrification, the availability of affordable irrigation pump sets and cheap or free electricity for agriculture.

The distribution of land holdings shows the dominance of marginal and small farmers. The average farm size in 2005-06 was only 0.83 hectare. The small holding size sets the limit for investment in farm assets and modern inputs that are essential for intensive farming. Such farms tend to be subsistence oriented. Further, it is very difficult to raise agricultural income substantially, given the very small holding size. According to the 55th round of the NSS, approximately 25 percent of farms used little or no irrigation while in 65 percent of farms 80-100 percent of their lands were irrigated. Therefore, programmes that focus on irrigated crops will not directly benefit 25 percent of farm households and programmes that focus on non-irrigated crops will not directly benefit 65 percent of farms in the state.

The area under current and other fallows increased from 16.4 percent of total area in 1990-91 to 19.04 percent in 2007-08. These are marginal low productive lands

(cultivable but remains uncultivable for one to 5 years thereafter) and do not have assured irrigation. Table 1.42 shows that the current fallow is inversely proportional to the amount of rainfall. However, in the case of other fallows, this relationship does not hold. One suitable strategy could be to increase the area under cultivation through reclamation of cultivable waste and fallow lands and use of modern irrigation and farm practices to increase farm production in the present conditions of frequent monsoon failures and water scarcity in the state. The other fallows and cultivable waste can be brought under cultivation by suitable reclamation practices, involving investments that will yield very low return. Farmers may not be in a position to make such investments, because most of them are marginal and small farmers

Table 1.42: Impact of Rainfall on Current Fallow Lands

| Year | Rainfall (mm) | Current Fallow (000 ha) | Current Fallow as % of Total Area | Other Fallow (000 ha) | Other Fallow as % of Total Area |
|-------------|--------------------------|--|--|--------------------------------------|--|
| 1999-00 | n.a | 1085 | 8.4 | 1140 | 8.8 |
| 2000-01 | 874 | 1134 | 8.7 | 1228 | 9.4 |
| 2001-02 | 775 | 1026 | 8.0 | 1409 | 10.8 |
| 2002-03 | 748 | 1505 | 11.5 | 1491 | 11.5 |
| 2003-04 | 868 | 954 | 7.3 | 1863 | 14.3 |
| 2004-05 | 1226 | 692 | 5.3 | 1704 | 13.1 |
| 2005-06 | 1305 | 759 | 5.8 | 1518 | 11.7 |
| 2006-07 | 860 | 907 | 7.0 | 1493 | 11.5 |
| 2007-08 | 1164 | 981 | 7.5 | 1499 | 11.5 |

Source (basic data): Tamil Nadu Economic Appraisal (various issues);

Note: mm – millimeters; ha – hectares; n.a – not available.

Tamil Nadu has 17303.29 sq. km of its land designated as wastelands, which is about 13.3 percent of total geographical area of the state (Vencatesan, 2006). In 2006-07, the state government implemented a scheme "Distribution of Two Acre Wastelands to Landless Poor Agricultural Labour Families". This scheme aims to empower landless agricultural labour households through distribution of entitlements on government wastelands to them, and to develop both government and private wastelands into cultivable lands. Although some initial land development activities are carried out before the distribution of land, most other activities after the legal documents are handed over to the beneficiaries. The lands are distributed once in three months. So far about 2 lakh acres of lands have been distributed to about 1.75 lakh beneficiaries.

Between 2000-01 and 2007-08, the Gross Cropped Area (GCA) declined from 63.38 lakh ha to 58.15 lakh ha in 2007-08 (i.e., by 1 million ha.). During that period, areas under coconut, sugarcane, vegetables and fruits increased marginally, but areas under the other crops came down significantly (Table 1.43).

Table 1.43: Cropping Pattern in Tamil Nadu

| Crops | Details | 2000 -01 | 2001 -02 | 2002 -03 | 2003 -04 | 2004 -05 | 2005 -06 | 2006 -07 | 2007 -08 |
|---------------------|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Paddy | (lakh ha) | 20.8 | 20.6 | 15.17 | 13.97 | 18.73 | 20.5 | 19.31 | 17.89 |
| | % | 30.42 | 33.09 | 29.22 | 26.28 | 31.81 | 33.98 | 33.05 | 30.77 |
| Millets | (lakh ha) | 7.33 | 6.46 | 7.12 | 9.03 | 8.24 | 7.41 | 6.99 | 6.99 |
| | % | 10.72 | 10.38 | 13.72 | 16.99 | 13.99 | 12.28 | 11.96 | 12.02 |
| Pulses | (lakh ha) | 6.88 | 6.85 | 5.63 | 5.37 | 5.9 | 5.25 | 5.37 | 6.09 |
| | % | 10.06 | 11 | 10.85 | 10.1 | 10.02 | 8.7 | 9.17 | 10.47 |
| Total: Food Grains | (lakh ha) | 35.01 | 34.52 | 27.92 | 28.37 | 32.87 | 33.16 | 31.66 | 30.98 |
| | % | 51.2 | 55.44 | 53.79 | 53.37 | 55.82 | 54.96 | 54.18 | 53.28 |
| Sugarcane | (lakh ha) | 3.15 | 3.21 | 2.61 | 1.92 | 2.22 | 3.35 | 3.91 | 3.54 |
| | % | 4.61 | 5.16 | 5.03 | 3.61 | 3.77 | 5.55 | 6.69 | 6.09 |
| Vegetables | (lakh ha) | 2.2 | 2.18 | 1.62 | 1.91 | 2.15 | 2.34 | 2.38 | 2.61 |
| | % | 3.22 | 3.5 | 3.12 | 3.59 | 3.65 | 3.88 | 4.07 | 4.49 |
| Fruits | (lakh ha) | 2.23 | 2.29 | 2.23 | 2.21 | 2.36 | 2.58 | 2.67 | 2.92 |
| | % | 3.26 | 3.68 | 4.3 | 4.16 | 4.01 | 4.28 | 4.57 | 5.02 |
| Total: Horticulture | (lakh ha) | 8.5 | 8.52 | 7.77 | 8.24 | 8.58 | 8.9 | 9.27 | 8.90 |
| | % | 12.43 | 13.68 | 14.97 | 15.5 | 14.57 | 14.75 | 15.75 | 15.31 |
| Total: Food Crops | (lakh ha) | 45.36 | 44.93 | 37 | 37.18 | 43.53 | 44.7 | 43.34 | n.a. |
| | % | 66.34 | 72.17 | 71.28 | 69.94 | 73.92 | 74.09 | 74.17 | n.a. |
| Cotton | (lakh ha) | 1.7 | 1.64 | 0.76 | 0.98 | 1.29 | 1.1 | 1 | 1.00 |
| | % | 2.49 | 2.63 | 1.46 | 1.84 | 2.19 | 1.82 | 1.71 | 1.72 |
| Groundnut | (lakh ha) | 6.99 | 6.63 | 5.02 | 5.92 | 6.16 | 6.19 | 5.08 | 5.35 |
| | % | 10.22 | 10.65 | 9.67 | 11.14 | 10.46 | 10.26 | 8.69 | 9.20 |
| Coconut | (lakh ha) | 3.23 | 3.36 | 3.46 | 3.53 | 3.57 | 3.71 | 3.75 | 3.83 |
| | % | 4.72 | 5.4 | 6.67 | 6.64 | 6.06 | 6.15 | 6.42 | 6.59 |
| Total: Non Food | (lakh ha) | 23.02 | 17.33 | 14.91 | 15.98 | 15.36 | 15.63 | 15.09 | n.a. |
| | % | 33.66 | 27.83 | 28.72 | 30.06 | 26.08 | 25.91 | 25.83 | n.a. |
| GCA | (lakh ha) | 68.38 | 62.26 | 51.91 | 53.16 | 58.89 | 60.33 | 58.43 | 58.15 |

Source: Tamil Nadu: Economic Appraisal (various issues); n.a.- not available.

Paddy is the dominant crop accounting for 30.1 percent of (GCA). The rice area declined from 20.8 lakh ha in 2000-01 to 17.89 lakh ha in 2007-08. Although the state government enhanced the minimum support price for paddy (Rs. 825 for Grade A and Rs. 795 for common variety), the state was able to procure only 9.87 lakh tonnes against 14.96 lakh tones in 2006-07. Groundnut, sugarcane and cotton are important commercial crops while millets (Jowar and Bajra) and pulses are important food grain crops and these crops account for about 40 percent of gross cropped area (GCA).

One important trend observed in the last decade is that horticulture development has gradually moved out of its rural confines to urban areas and from “traditional” to “hi-tech”. Thus, horticulture assumes great importance as it provides a remunerative means for diversification of land use, improving productivity of land and increasing farm income. Currently about 15.3 percent of GCA are utilized for horticulture.

During 2000-01 to 2007-08 the productivity of paddy declined from 3541 kg/ha to 2817 kg/ha due to delayed monsoon, imbalance in fertilizer application, limited coverage under certified seeds, delayed and prolonged transplantation etc (Table 1.44). To step up the yield rate (and to minimize the water use), the new technology of System of Rice Intensification needs to be popularized. During the same period, the productivity of jowar, pulses and sugarcane also declined considerably. At the same time, the yield of bajra, cotton, horticulture increased significantly. Although various schemes are being implemented to promote horticulture, the following measures need special attention in order to improve further: (i) expanding area under dry land crops with effective water management, (ii) bringing waste lands under horticulture, (iii) popularizing technologies like micro irrigation and fertilization, (iv) promotion of contract farming, (v) cultivation in green houses and shade nets, (vi) improving post-harvesting infrastructure, and (vii) identifying area specific horticulture crops.

Table 1.44: Productivity (Yield) of Major Crops in Tamil Nadu

| Crops | (Kilograms) | | | | | | | |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 2000 -01 | 2001 -02 | 2002 -03 | 2003 -04 | 2004 -05 | 2005 -06 | 2006 -07 | 2007 -08 |
| Paddy | 3541 | 3196 | 2359 | 2308 | 2703 | 2541 | 3423 | 2817 |
| Jowar | 923 | 866 | 660 | 612 | 669 | 732 | 999 | 874 |
| Bajra | 1318 | 1223 | 869 | 1085 | 1273 | 1157 | 1511 | 1436 |
| Pulses | 454 | 395 | 356 | 375 | 367 | 337 | 541 | 303 |
| Total: Food Grains | 2461 | 2228 | 1598 | 1520 | 1870 | 1844 | 2610 | 2125 |
| Sugarcane* | 116 | 116 | 106 | 102 | 110 | 105 | 115 | 108 |
| Vegetables | 27 | 26 | 22 | 24 | 29 | 28 | 30 | 30 |
| Fruits | 17.98 | 19 | 18 | 16 | 19 | 22 | 26 | 26 |
| Total: Horticulture | 14 | 14 | 12 | 12 | 15 | 15 | 17 | 17 |
| Cotton | 316 | 238 | 188 | 213 | 244 | 260 | 374 | 343 |
| Groundnut | 1942 | 1885 | 1429 | 1552 | 1632 | 1652 | 1981 | 1957 |

Source: Tamil Nadu Economic Appraisal (various issues); *in tones.

Evidences indicate that per hectare consumption of fertilizers is relatively high in Tamil Nadu as compared to other states (only Andhra Pradesh, Haryana and Punjab

show higher consumption in per hectare terms). Comparison over time indicates that per hectare consumption of fertilisers in Tamil Nadu has varied considerably from year to year. But for the last three years, the per hectare consumption increased significantly (Table 1.45).

Table 1.45: Fertilizer Consumption in Tamil Nadu

| Years | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | -99 | -00 | -01 | -02 | -03 | -04 | -05 | -06 | -07 | -08 |
| Consumption (Lakh Tonnes) | 9.5 | 10.52 | 9.63 | 9.38 | 7.43 | 7.03 | 11.39 | 10.99 | 11.25 | 10.76 |
| Per hectare Consumption (Kilograms) | 145 | 160 | 145 | 148 | 118 | 115 | 159 | 184 | 187 | 185 |

Source: Tamil Nadu Economic Appraisal (various issues).

To encourage small and marginal farmers, the state government has been providing free power to marginal farmers from 1984-85 and to small farmers from 2006-07. In 2006-07 the power consumption in agriculture was 10358 million units and subsidy for free power to the farmers was Rs. 1330.1 crore.

The institutional credit needs of farm sector are met by public sector banks, cooperative banks, and regional banks. In 2007-08, the crop loan (allocation) was Rs. 13486 crore as against Rs. 13990 crore in 2006-07. The state government waived the farmers' loans (and outstanding interest on loans) issued through cooperatives as 31.3.2006. The discharge certification was issued in respect of 22.19 lakh accounts to the tune of Rs. 5415.82 crore.

With state government involvement a comprehensive crop insurance scheme was implemented in 1985. From 1999 onwards it has been implemented as National Agricultural Insurance Scheme with wide coverage of crops. This scheme is compulsory for farmers those seeking loans and non compulsory for others. It provides a 10% premium subsidy to marginal and small farmers. The subsidy cost is met equally by state and central governments. Details of crop insurance from 2001-02 to 2007-08 are given in Table 1.46.

Table 1.46: Crop Insurance

(Rs. crore)

| Details | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 |
|------------------------|--------------|--------------|-------------|--------------|--------------|-------------|---------------|
| Area covered (lakh ha) | 2.49 | 1.47 | 1.03 | 2.47 | 2.13 | 4.40 | 8.58 |
| Sum Insured | 196.48 | 127.68 | 104.21 | 293.10 | 258.16 | 504.37 | 950.84 |
| Premium | 3.92 | 2.59 | 2.12 | 6.21 | 5.49 | 11.64 | 20.67 |
| Total Claims | 16.63 | 34.05 | 8.92 | 37.83 | 48.27 | 9.44 | 267.61 |

Source: Tamil Nadu Economic Appraisal (various issues)

1.9 Agriculture: Flagship Programmes⁸

As stated earlier, the 11th Plan has proposed to accelerate the growth of agriculture by 4 percent per annum. Towards achieving the target, the State Plan has proposed the following strategies:

- Bringing every piece of lands (follow and cultivable) under cultivation;
- Intensifying crop diversification;
- Ensuring quality seeds and pedigree planting materials, especially in horticulture;
- Encouraging judicious use of water through drip irrigation, pit method of sugarcane planting, SRI techniques in paddy etc.;
- Adequate care to the soil health to attain potential yields;
- Promoting Hi-tech precision farming and strengthening post harvesting techniques;
- Enhancing marketing of agricultural commodities and improving price realization through alternate markets like Uzhavar Sandhai;
- Increasing productivity of land, labour and water;
- Providing social safety net to farmers through crop insurance; and
- Bridging the knowledge gap through effective group based extension, adopting bottom up approach.

In addition to the following existing schemes: Integrated cereal development programme in rice, Procurement and distribution of paddy and millet seeds, Crop and Plant protection, Increasing Oil Seed production, Intensive Cotton Development Programme, Crop Insurance Scheme, Development of Pulses, Agricultural mechanization, and Alkali Soil Reclamation, various new state schemes have been implemented such as

⁸ This section is based Government of Tamil Nadu (2009), Policy Note: Agriculture Department (2009-10), available at: <http://www.tn.gov.in/policynotes/agriculture.htm>

Holistic Village Adoption Scheme, Agricultural Facilitation Centres, Strengthening of Seed Processing units, Rain Fed Farming and System of Rice Intensification Techniques, Exposure visit to other States for Exchange of Ideas, Computerisation and Broadband Connectivity.

Following centrally sponsored schemes have also been implemented-Rashtriya Krishi Vikas Yojana (RKVY), National Food Security Mission (NFSM), Seed Village Scheme, Technology Mission on Oilseeds (coconut), Promotion of Homestead Gardens in Urban Areas, Distribution of Coconut/Tree Seedlings, Promotion of Jatropha, and National Horticulture Mission (NHM).

(i) National Agricultural Development Programme / Rashtriya Krishi Vikas Yojana

The Union government introduced a new special Additional Central Assistance Scheme in the 11th Plan popularly known as "Rashtriya Krishi Vikas Yojana (RKVY)", in order to rejuvenate agriculture and achieve 4 percent annual growth rate in agriculture. The main objectives of the scheme are:

- To incentivize the states that increase their public investment in agriculture and allied sectors,
- To provide flexibility and autonomy to the states in planning and executing programmes for agriculture,
- To ensure the preparation of agriculture plans for the districts and states based on agro-climatic conditions, availability of technology and natural resources,
- To achieve the goal of reducing the yield gaps in important crops,
- To maximize returns to the farmers, and
- To address the issues relating to production and productivity of the agriculture and allied sectors in an integrated manner.
-

The basic features of RKVY are as follows:

- It is a state Plan scheme, fully funded as the central Government grant
- The eligibility of a state for the RKVY is contingent upon the state maintaining or increasing the State Plan expenditure for agricultural and allied sectors (i.e., over and above the baseline percentage of expenditure)
- The base line expenditure is determined based on the average expenditure incurred by the state Government during the three years prior to the previous year.

- The states are required to prepare the Agricultural Plan for districts.⁹
- The scheme encourages convergence with other programmes such as NREGS.
- If the state lowers its investment in the subsequent years, and goes out of the RKVY basket, then the balance resources for completing the projects already commenced would have to be committed by the states.
- The RKVY provides funds under two distinct streams. Under Stream-1, at least 75 percent of the allotted amount should be proposed for specific projects. Under Stream-II, funds are allotted for strengthening the existing state sector schemes and filling the resource gap.

The Tamil Nadu Watershed Development Agency is the nodal agency for the schemes implemented by the Departments of Agriculture, Horticulture, Agricultural Engineering, Public Works Department, Fisheries, Animal Husbandry, Dairy development, and Tamil Nadu Agricultural University. Government of India sanctioned Rs. 185.31 crore for Tamil Nadu for the year 2007-08 and Rs. 140.38 crore for 2008-09.

Details of projects taken up by the Agriculture Department are as follows:

Precision Farming

Under this program, drip irrigation with fertigation are provided besides ensuring adoption of all other scientific methods in 10,360 ha at the cost of Rs. 48.51 crore. Subsidy of Rs 40000 per ha is extended as 50 percent subsidy for installation of drip fertigation system besides Rs 25000 per ha provided as assistance towards the cost of seed, water soluble fertilizers and plant protection chemicals;

Agri Clinic

Under this scheme, agri clinics with soil testing facilities are established at a cost of Rs. 11.94 crore in 385 blocks (which serve as technical and quality inputs providing centres). Rs. 3 lakh per centre as 50 percent back ended subsidy is extended if the entrepreneur establishes the agri clinic at a cost of Rs. 6 lakh;

⁹ Under the programme agriculture, animal husbandry, milk production, fisheries development and irrigation development schemes are being implemented.

Organic Farming and Organic Manure Production

To improve soil health, the following were established under this scheme: (i) 1295 Vermi Compost unit at farm level at a cost of Rs. 6.15 crore (by providing Rs.45000 per unit as subsidy); (ii) 259 municipal compost units at Rs. 5.31 crore through self help groups / NGOs/Women Groups with an assistance of Rs. 2.05 lakh per unit as 50 percent subsidy; and (iii) 259 bio input production units with Rs. 3.24 crore by providing an assistance of Rs. 1.25 lakh per unit as 50 percent subsidy.

Scheme for Dry Land Development

This scheme has been implemented in 70 blocks covering 10500 ha at Rs. 4.26 crore. An assistance of Rs 2500 per ha is given as 50 percent subsidy for cultivation besides distributing agricultural machineries such as chisel plough, seed drill, weeder, fertilizer applicator, and multi-crop thresher at subsidized cost.

Quality Seed Production

The Breeder Seed Production Centres at Tamil Nadu Agricultural University (at a cost of Rs. 2.9 crore), 43 State Seed Farms and 22 Coconut Nurseries (at Rs. 4.2 crore) have been strengthened for land development work and irrigation facilities. Further, 20 new Seed Processing Units have been established (at Rs. 1.68 crore). 75 Seed Processing units were established by self help groups, women groups NGOs and farmers at the cost of Rs. 5.62 crore. Actions were initiated to establish 18 seed testing laboratories at the cost of Rs. 1.08 crore. Trainings were given to officers, farmers, NGOs, self help groups and TANWABE (Tamil Nadu Women in Agri Business and Extension) groups at the cost of Rs. 30.53 crore. Rs. 16.91 crore was allotted to provide subsidy for production and distribution of 5991 MTs of seeds of hybrid rice, pulses and oilseeds and subsidy for distributing 15 lakh coconuts seedlings.

Automatic Weather Stations (AWS)

224 AWCs are established at the cost of 16.9 crore to provide medium range forecast to the farming community

E Agriculture

Rs. 1.352 crore was spent to provide computers and other accessories to block level agricultural extension centres and link these computers with district and state level offices.

Establishment of Bio-Fertilizer Production Units

Rs. 8.14 crore was spent in establishing 9 new bio fertilizer production plants in Kancheepuram, Tiruvannamalai, Dharmapuri, Coimbatore, Erode, Thiruvarur, Tirunelveli, Theni, and Thoothukudi districts.

As part of National Agricultural Development Programme, the Tamil Nadu Watershed Development Agency has sanctioned funds for implementing the following projects:

- ***Development of land parcels of 50 acres and above in patta dry (punjai) lands:*** Land parcels of 50 acres and above in dry lands would be taken up for development of horticulture clusters based on ground water availability. Otherwise, biomass clusters would be taken up depending on the preference of beneficiaries. In 2007-08, 34 clusters covering 1910 acres were developed with sanctioned amount of Rs. 421.34 lakh, benefiting 1152 small and marginal farmers. During 2008-09, nine districts –Erode, Vellore, Tiruvannamalai, Trichirappalli, Cuddalore, Sivaganga, Virudhunagar, Theni, and Tirunelveli have been identified as focused districts. It was proposed to cover 27 clusters with an allocation of Rs. 364.78 lakhs.
- ***Management Information System:*** Rs. 30.84 lakh was allotted for the development of management information system for web based monitoring of National Development Programme at state and district levels

(ii) National Food Security Mission

In view of the stagnating food grain production and increasing consumption need of the growing population, the Government of India launched the National Food Security Mission (NFSM) in August 2007. The main aim of the scheme is to increase production and productivity of wheat, rice and pulses in the identified districts on a sustainable basis so as to ensure food security of the nation. To achieve the objectives, the mission adopts the following strategies:

- Implementation in a mission mode through active engagement of all the stakeholders at various levels;
- Promotion and extension of improved technologies, integrated nutrient management, etc.
- Closely monitoring the flow of fund and ensuring that funds reach the target beneficiaries on time;

- Various interventions proposed would be integrated with the district plan and targets for each identified district would be fixed;
- Constant monitoring and concurrent evaluation for assessing the impact of the interventions for a result oriented approach by the implementing agencies (Government of India, 2007).¹⁰

The NFSM has three components: (i) National Food Security Mission – Rice; (ii) National Food Security Mission – Wheat; and (iii) National Food Security Mission – Pulses. Total financial implications for the NFSM would be Rs.4882.48 crores during the XIth Plan (2007-08 – 2011-12). Beneficiary farmers contribute 50 percent of cost of the activities / work to be taken up at their / individual farm holdings. Beneficiaries can choose to draw loans from the Banks, in which case subsidy amount prescribed for a particular component for which the loan availed will be released to the Banks. The implementation of the NFSM would result in increasing the production of rice by 10 million tones, wheat by 8 million tones and pulses by 2 million tones by 2011-12. It would also create additional employment opportunities.

NFSM aims at bringing an additional 4 million hectares covering 11 states and 168 districts including Tamil Nadu. In Tamil Nadu, NFSM covers two crops- Rice and Pulses. The NFSM-rice districts in Tamil Nadu are: Nagapattinam, Thiruvarur, Pudukkottai, Ramanadhapuram, and Sivagangai. The NFSM-Pulses districts are: Coimbatore, Cuddalore, Erode, Nagappattinam, Namakkal, Thiruvallur, Thiruvarur, Thoothukudi, Thiruvannamalai, Vellore, Villupuram, and Virudhunagar.

(iii) National Horticulture Mission

The National Horticulture Mission (NHM) has been launched as a Centrally Sponsored Scheme during the 10th Plan in order to promote holistic growth of the horticulture sector through an area based regionally differentiated strategies. The scheme is fully funded by the Government and different components proposed for implementation financially supported on the scales laid down. The strategies of the mission to achieve the specified objectives are as follows:

- Ensure an end-to-end holistic approach covering production, post harvest management, processing and marketing to assure appropriate returns to growers/producers.

¹⁰“ National Food Security Mission: Operational Guidelines” Ministry of Agriculture, August 2007 (available at: <http://www.indg.in/agriculture/rural-employment-schemes/nfsm-operationalguidelines.pdf>).

- Promote R&D technologies for production, post-harvest management and processing.
- Enhance acreage, coverage, and productivity through (i) diversification, from traditional crops to plantations, orchards etc. and (ii) extension of appropriate technology to the farmers for high tech horticulture cultivation and precision farming.
- Assist setting up post harvest facilities such as pack house, ripening chamber, cold storages, Controlled Atmosphere storages etc, processing units for value addition and marketing infrastructure.
- Adopt a coordinated approach and promotion of partnership, convergence and synergy among R&D, processing and marketing agencies in public as well as private sectors, at the National, Regional, State and sub-State levels.
- Where appropriate and feasible, promote National Dairy Development Board model of cooperatives to ensure support and adequate returns to farmers.
- Promote capacity-building and Human Resource Development at all levels.

This program has been implemented in Tamil Nadu from 2005-06 with 8 focus crops viz., mango, Anola, banana, cashew, chilies, turmeric, aromatic Plants and flowers in 13 districts of Tamil Nadu viz., Coimbatore Cuddalore, Dharmapuri, Dindigul, Erode, Krishnagiri, Madurai, Ramanathapuram., Salem, Sivagangai, Theni, Thiruchirapalli and Tiruvelveli.

1.10 Summary

Agriculture continues to be a dominant sector, providing livelihood to more than 50 percent of people. However, it contributes only about 10 percent of GSDP. Non-agriculture, particularly the services is the main drivers of the over all economic growth of the state. Trade, hotels and restaurants are the dominant services in Tamil Nadu followed by banking and insurance and real estates.

Although the economy grew at 8.47 percent during the 10th Plan, Tamil Nadu is not likely to meet the target of 9 percent growth during the 11th Plan as (i) agriculture recorded negative growth (due to drought) during the first two years of the plan period and (ii) other sectors too recorded decelerated growths due to global slow down. Although Tamil Nadu's relative position in competitiveness index shows considerable advantage, its market size as indicated by its GSDP share is falling overtime.

The real growth of agriculture is likely to remain relatively low as compared to other sectors. Net sown and Gross Cropped areas continuously decline. Although rice is the dominant crop accounting for 30 percent of gross cropped area, rice productivity is low in many rice producing districts. Low agricultural productivity along with other factors lead to low per capita income in those districts. This kind of trend will lead to further migration of people away from agriculture to non agriculture. The basic challenge in this regard is to create the capacity to absorb the population moving out of agriculture to other sectors with proper training and skill development.

At the same time, we need to increase the agriculture productivity/growth. There are three sources of growth: input growth, technology growth and efficiency growth. Given that inputs like land and water are scarce and there is no technology breakthrough, the output growth is possible only through productivity/efficiency improvement. We need to utilize the existing resources properly and attempt to produce agricultural outputs at their potential levels.

Growth will have to play a key role in reducing poverty. Government has taken various measures to combat poverty: (i) complete waiving of co-operative farm loans of Rs. 7000 crore, (ii) waiving off the entire interest on cooperative crop loans to farmers who repay their crop loans on time, (iii) 50 percent insurance premium subsidy under the crop insurance scheme in order to compensate farmers affected by natural calamities, and (iv) providing rice at one rupee per kg under PDS (since 2008) and essential food items like toor dhal, urad dhal, and palm oil at subsidized prices through fair price shops, and providing ten cooking condiments for Rs. 50. Our projection indicates that Tamil Nadu is well on track in cut poverty.

Our projection based on past data indicates that state will manage to create 1.5 million additional jobs during the plan period which will fall short of plan target of 2 million jobs. More policy attention is required in this regard.

Chapter 2

CURRENT STATUS OF EDUCATION IN TAMIL NADU

In this chapter we assess the performance of Tamil Nadu in meeting its Eleventh Plan targets relating to education by analyzing specific monitorable indicators from the Ninth Plan period onwards.

2.1. Eleventh Plan Targets Relating to Education

The National targets relating to education are: (i) Between 2003-04 and 2011-12, reduction in the dropout rates at the elementary level from 52.2 percent to 20 percent; (ii) Developing minimum standards of educational attainment in elementary schools to ensure quality education; (iii) Increasing literacy rate (for aged 7 year or more) to 85 percent by 2011-12; (iv) Reducing the gender gap in literacy to 10 percentage points by 2011-12 and (v) Increasing the percentage of each cohort going to higher studies to 15 percent by 2011-12. The specific Eleventh Plan targets relating to education in Tamil Nadu are: (i) reduction in dropout rates at the elementary school level to zero; (ii) increasing literacy rate to 90 percent and youth literacy to 100 percent; (iii) 1 pucca electrified school building to each village panchayat.

Let us start with analyzing trends in the public expenditures on education from Ninth Plan period onwards and then review various indicators like literacy, enrolment, pupil-teacher ratio, dropout rate etc to assess the performance of education sector in Tamil Nadu.

2.2. Financing of Education

Historically Tamil Nadu has attached considerable importance to (general) education. The revenue expenditure incurred by the state government on general education increased from 2.5 percent of GSDP in 1997-98 to 3.1 percent in 1999-00. Then it started declining continuously and reached 2 percent level in 2005-06. From that year onwards, it started increasing and reached 2.6 percent in 2009-10 (Table 2.1 and Chart 2.1).

Table 2.1: Growth of Education Expenditure in Tamil Nadu: 1997-98 to 2010-11

| Year | GSDP current prices (1999-00 series) (Rs. crore) | Total Rev. Exp. (Rs. crore) | Expenditure on General Education | | | Exp. On Technical Edu. (Rs. crore) |
|---|--|--------------------------------|----------------------------------|----------------|-----------|---------------------------------------|
| | | | Rs. crore | % of Rev. Expe | % of GSDP | |
| <i>IXth Plan Period</i> | | | | | | |
| 1997-98 | 110005 | 14950.9 | 2746.6 | 18.4 | 2.5 | 89.8 |
| 1998-99 | 125578 | 17697.4 | 3674.1 | 20.8 | 2.9 | 116.7 |
| 1999-00 | 134185 | 20727.8 | 4139.7 | 20.0 | 3.1 | 142.3 |
| 2000-01 | 146796 | 21752.4 | 4184.4 | 19.2 | 2.9 | 137.7 |
| 2001-02 | 148861 | 21557.0 | 4111.7 | 19.1 | 2.8 | 125.7 |
| <i>Xth Plan Period</i> | | | | | | |
| 2002-03 | 158155 | 25687.7 | 3953.9 | 15.4 | 2.5 | 114.1 |
| 2003-04 | 175371 | 25271.0 | 4004.8 | 15.8 | 2.3 | 106.0 |
| 2004-05 | 202374 | 29154.9 | 4410.6 | 15.1 | 2.2 | 115.8 |
| 2005-06 | 234837 | 32008.7 | 4747.8 | 14.8 | 2.0 | 167.7 |
| 2006-07 | 276917 | 38265.0 | 5794.8 | 15.1 | 2.1 | 173.1 |
| <i>XIth Plan Period</i> | | | | | | |
| 2007-08 | 304989 | 42975.0 | 6565.4 | 15.3 | 2.2 | 166.6 |
| 2008-09 | 339112 | 53590.3 | 8465.9 | 15.8 | 2.5 | 202.2 |
| 2009-10R | 397964 | 59309.7 | 10243.9 | 17.3 | 2.6 | 217.1 |
| 2010-11B | 436646 | 66488.2 | 11441.0 | 17.2 | 2.6 | 264.0 |

Source: Budget Documents, Government of Tamil Nadu (various years); Government of India, Central Statistical Organisation, EPW Research Foundation and Budget Speech of Minister for Finance, 2010-11.

Chart 2.1: Expenditure on General Education as % of GSDP and As % of Total Revenue Expenditure

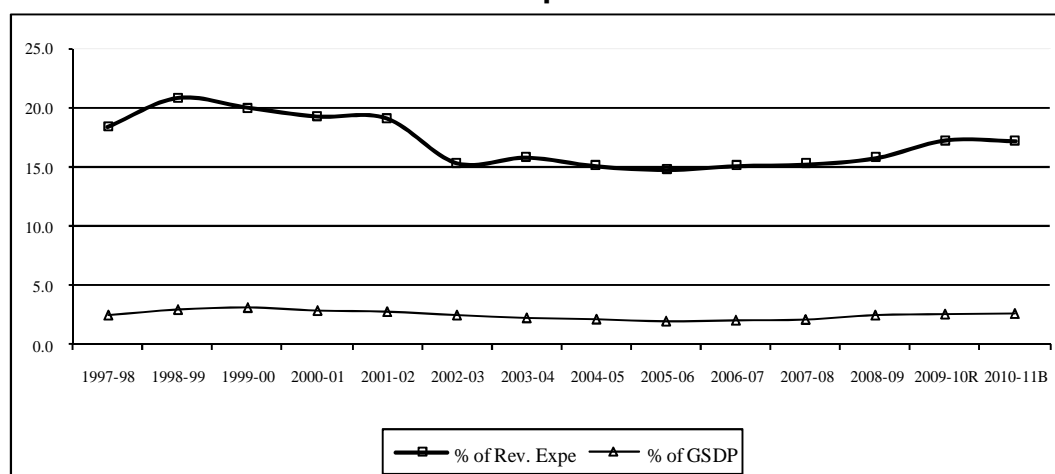


Table 2.2 shows the composition of revenue expenditure on education over the years. The elementary education accounted for about 50 percent of the total education expenditure in the initial years of Ninth Plan. After that its share declined continuously and reached 42.2 percent in 2005-06. In 2009-10, the share further came down to 41.6 percent. Thus, allocation on elementary education has been declining in recent years. On the other hand, the share of secondary education during 1997-98 to 2009-10 increased from 37.9 percent to 43.4 percent.

Table 2.2: Composition of Revenue Expenditure on Education: 1997-98 to 2010-11

| Year | Elementary Education | | Secondary Education | | University and Higher Education | | Adult Education etc. | |
|---|----------------------|------|---------------------|------|---------------------------------|------|----------------------|-----|
| | Rs. crore | % | Rs. crore | % | Rs. crore | % | Rs. crore | % |
| <i>IXth Plan Period</i> | | | | | | | | |
| 1997-98 | 1351.1 | 49.2 | 1041.0 | 37.9 | 283.0 | 10.3 | 71.5 | 2.6 |
| 1998-99 | 1831.0 | 49.8 | 1422.4 | 38.7 | 287.5 | 7.8 | 133.2 | 3.6 |
| 1999-00 | 1967.1 | 47.5 | 1589.6 | 38.4 | 486.6 | 11.8 | 96.4 | 2.3 |
| 2000-01 | 1888.3 | 45.1 | 1596.6 | 38.2 | 515.7 | 12.3 | 183.8 | 4.4 |
| 2001-02 | 1875.3 | 45.6 | 1627.1 | 39.6 | 490.2 | 11.9 | 119.2 | 2.9 |
| <i>Xth Plan Period</i> | | | | | | | | |
| 2002-03 | 1780.6 | 45.0 | 1615.8 | 40.9 | 488.5 | 12.4 | 69.0 | 1.7 |
| 2003-04 | 1752.1 | 43.8 | 1622.5 | 40.5 | 460.9 | 11.5 | 169.3 | 4.2 |
| 2004-05 | 1936.9 | 43.9 | 1728.6 | 39.2 | 499.4 | 11.3 | 245.7 | 5.6 |
| 2005-06 | 2003.9 | 42.2 | 1824.9 | 38.4 | 541.0 | 11.4 | 378.0 | 8.0 |
| 2006-07 | 2614.6 | 45.1 | 2223.5 | 38.4 | 588.2 | 10.2 | 368.5 | 6.4 |
| <i>XIth Plan Period</i> | | | | | | | | |
| 2007-08 | 2886.9 | 44.0 | 2724.5 | 41.5 | 635.2 | 9.7 | 318.9 | 4.9 |
| 2008-09 | 3774.0 | 44.6 | 3525.8 | 41.6 | 829.5 | 9.8 | 336.6 | 4.0 |
| 2009-10R | 4259.0 | 41.6 | 4445.7 | 43.4 | 1196.4 | 11.7 | 342.9 | 3.3 |
| 2010-11B | 4821.2 | 42.1 | 4936.0 | 43.1 | 1285.6 | 11.2 | 398.3 | 3.5 |

Source: Budget Documents of Government of Tamil Nadu (various issues).

Table 2.3 shows that the allocation for school education as proportion of GSDP has ranged from 1.63 - 2.65 percent since the beginning of 9th Plan.

Table 2.3: Expenditure on School Education as % of GSDP Current Prices

| Year | Elementary | Secondary | School Education | Year | Elementary | Secondary | School Education | Year | Elementary | Secondary | School Education |
|------------------------------------|------------|-----------|-----------------------------------|---------|------------|------------------------------------|------------------|----------|------------|-----------|------------------|
| <i>IXth Plan Period</i> | | | <i>Xth Plan Period</i> | | | <i>XIth Plan Period</i> | | | | | |
| 1997-98 | 1.23 | 0.95 | 2.17 | 2002-03 | 1.13 | 1.02 | 2.15 | 2007-08 | 0.95 | 0.89 | 1.84 |
| 1998-99 | 1.46 | 1.13 | 2.59 | 2003-04 | 1 | 0.93 | 1.92 | 2008-09 | 1.11 | 1.04 | 2.15 |
| 1999-00 | 1.47 | 1.18 | 2.65 | 2004-05 | 0.96 | 0.85 | 1.81 | 2009-10R | 1.07 | 1.12 | 2.19 |
| 2000-01 | 1.29 | 1.09 | 2.37 | 2005-06 | 0.85 | 0.78 | 1.63 | 2010-11B | 1.1 | 1.13 | 2.23 |
| 2001-02 | 1.26 | 1.09 | 2.35 | 2006-07 | 0.94 | 0.8 | 1.75 | | | | |

Source: Computed by author.

Details of expenditure incurred on education in the Tamil Nadu under plan and non-plan accounts are shown in Table 2.4. In the case of elementary education, about 90 percent of expenditures were spent under non-plan heads. In the case of secondary education, more than 95 percent were incurred under non-plan account and in the university and higher education almost the entire money was spent under non-plan heads.

Table 2.4: Percent of Expenditures on Education under Plan and Non-Plan Heads

| Year | Elementary Education | | Secondary Education | | University & Higher Education | |
|------------------------------------|----------------------|------|---------------------|------|-------------------------------|------|
| | Non-plan | Plan | Non-plan | Plan | Non-plan | Plan |
| <i>IXth Plan Period</i> | | | | | | |
| 1997-98 | 94.0 | 6.0 | 96.1 | 3.9 | 98.0 | 2.0 |
| 1998-99 | 95.8 | 4.2 | 95.9 | 4.1 | 97.5 | 2.5 |
| 1999-00 | 95.9 | 4.1 | 95.5 | 4.5 | 98.2 | 1.8 |
| 2000-01 | 96.2 | 3.8 | 94.3 | 5.7 | 98.3 | 1.7 |
| 2001-02 | 95.4 | 4.6 | 93.0 | 7.0 | 98.5 | 1.5 |
| <i>Xth Plan Period</i> | | | | | | |
| 2002-03 | 94.7 | 5.3 | 97.1 | 2.9 | 99.6 | 0.4 |
| 2003-04 | 92.6 | 7.4 | 96.7 | 3.3 | 99.5 | 0.5 |
| 2004-05 | 91.3 | 8.7 | 97.0 | 3.0 | 99.0 | 1.0 |
| 2005-06 | 91.6 | 8.4 | 96.9 | 3.1 | 99.0 | 1.0 |
| 2006-07 | 89.0 | 11.0 | 97.3 | 2.7 | 99.6 | 0.4 |
| <i>XIth Plan Period</i> | | | | | | |
| 2007-08 | 89.4 | 10.6 | 91.9 | 8.1 | 99.2 | 0.8 |
| 2008-09 | 90.4 | 9.6 | 95.7 | 4.3 | 98.2 | 1.8 |
| 2009-10R | 89.3 | 10.7 | 95.1 | 4.9 | 97.8 | 2.2 |
| 2010-11B | 86.1 | 13.9 | 94.3 | 5.7 | 99.3 | 0.7 |

Source: Budget Documents of Government of Tamil Nadu (various issues).

During the 9th Plan period, Government primary schools accounted for about 62 percent of total revenue expenditure on elementary education and assistance to non-government primary schools accounted for about 30 percent. During the 11th plan period, the share of government schools has increased to about 68 percent and that of non government schools has decreased to about 25 percent (Table 2.5).

Table 2.5: Composition of Expenditure on Elementary Education

(Percent)

| Year | Total (Rs. crore) | Govt. Primary Schools | Ass. To Non-Govt. Schools | Asst. To LB's Primary Schools | Text Books | Others |
|---|-------------------|-----------------------|---------------------------|-------------------------------|------------|--------|
| <i>IXth Plan Period</i> | | | | | | |
| 1997-98 | 1351.1 | 62.46 | 29.90 | 0.55 | 1.31 | 5.77 |
| 1998-99 | 1831.0 | 61.91 | 30.79 | 0.80 | 0.95 | 5.55 |
| 1999-00 | 1967.1 | 62.38 | 30.79 | 0.40 | 0.58 | 5.84 |
| 2000-01 | 1888.3 | 62.55 | 31.33 | 0.34 | 0.48 | 5.31 |
| 2001-02 | 1875.3 | 63.79 | 31.51 | 0.37 | 0.01 | 4.32 |
| <i>Xth Plan Period</i> | | | | | | |
| 2002-03 | 1780.6 | 62.26 | 30.66 | 0.40 | 0.98 | 5.69 |
| 2003-04 | 1752.1 | 62.14 | 30.51 | 0.28 | 2.11 | 4.95 |
| 2004-05 | 1936.9 | 64.51 | 29.06 | 0.29 | 1.19 | 4.95 |
| 2005-06 | 2003.9 | 65.16 | 28.40 | 0.26 | 1.21 | 4.97 |
| 2006-07 | 2614.6 | 64.88 | 26.61 | 0.20 | 1.04 | 7.28 |
| <i>XIth Plan Period</i> | | | | | | |
| 2007-08 | 2886.9 | 65.90 | 26.70 | 0.15 | 1.00 | 6.25 |
| 2008-09 | 3774.0 | 67.44 | 26.54 | 0.16 | 0.76 | 5.10 |
| 2009-10R | 4259.0 | 68.25 | 24.83 | 0.14 | 0.70 | 6.07 |
| 2010-11B | 4821.2 | 68.37 | 23.95 | 0.13 | 0.65 | 6.89 |

Source: Budget Documents of Government of Tamil Nadu (various issues).

2.3. Literacy Rate

Literacy is one of the crucial components of the human development index. It is also linked with other key indicators of human development such as infant mortality, morbidity rate, nutritional status of children, empowerment of women, and health status. Tamil Nadu has a longstanding commitment to education. Due to its planned efforts, it has obtained third rank in terms of overall literacy and female literacy (2001), next only to Kerala and Maharastra.

During 1991 to 2001, literacy in Tamil Nadu increased significantly from 62.7 to 73.5 percent (10.8 percentage points increase) and all-India literacy increased from 52.2 to 64.8 percent (12.6 percentage points rise).¹¹ If this trend continues, literacy in Tamil Nadu and all-India will probably reach 87.5 percent (which is slightly lower than the target rate of 90 percent) and 83.7 percent respectively in 2012. In 2001, the female literacy rate of the state was only 64.5 percent and the all-India rate was 54.2 percent (Table 2.6). Our projections imply that the former would reach 83.1 percent and the latter 77.1 percent by 2012. It is heartening to note that the gender gap in the literacy will reduce to 10 percent level as the male literacy in Tamil Nadu will reach 92.9 percent by the end of the 11th plan.

Table 2.6: Literacy Rate

(Percent)

| Details | 1991 | | | 2001 | | |
|--------------------------|-------|--------|---------|-------|--------|---------|
| | Male | Female | Persons | Male | Female | Persons |
| <i>Tamil Nadu</i> | | | | | | |
| Rural | 67.18 | 41.84 | 54.59 | 77.47 | 55.84 | 66.66 |
| Urban | 86.06 | 69.61 | 77.99 | 88.40 | 75.64 | 82.07 |
| Total | 73.75 | 51.33 | 62.66 | 82.33 | 64.55 | 73.47 |
| <i>All India</i> | | | | | | |
| Rural | 57.87 | 30.62 | 44.69 | 71.18 | 46.58 | 58.21 |
| Urban | 81.09 | 64.05 | 73.98 | 86.42 | 72.99 | 80.06 |
| Total | 64.13 | 39.29 | 52.21 | 75.85 | 54.16 | 65.38 |

Source: Census of India (2001).

Of course, there are rural and urban differences in the literacy attainment. The district level data reveals that Kanniyakumari district achieved the highest literacy of 88.1 percent in 2001, while Dharmapuri obtained the lowest rate of 59.2 percent. In 12 districts, the gender gap was more than 20 percent in 2001 (Table 2.7).¹²

According to the estimates of State Planning Commission (2007), Kanniyakumari district improved its literacy rate to 94.94 percent in 2004-05 and Dharmapuri to 63.82 percent.

¹¹ The UMI reference level is 95 percent.

¹² In 43 out of 385 blocks in Tamil Nadu, the gap between male and female literacy was more than 20 percent (not shown).

Table 2.7: District Wise Literacy in Tamil Nadu: 2001 and 2004-05

| Districts | 2001 | | 2004-05 | | Districts | 2001 | | 2004-05 | |
|---------------|--------------|--------------|--------------|--------------|----------------|-------|--------|---------|--------|
| | Male | Female | Person | Person | | Male | Female | Person | Person |
| Chennai | 84.71 | 75.32 | 80.14 | 86.35 | Ramanathapuram | 82.96 | 63.55 | 73.05 | 78.71 |
| Coimbatore | 83.82 | 69.8 | 76.95 | 82.91 | Salem | 75.25 | 55.61 | 65.72 | 70.81 |
| Cuddalore | 82.76 | 60.85 | 71.85 | 77.42 | Sivagangai | 83.7 | 62.12 | 72.66 | 78.29 |
| Dharmapuri | 68.82 | 49.1 | 59.23 | 63.82 | Thanjavur | 85.45 | 66.95 | 76.07 | 81.97 |
| Dindigul | 80.29 | 59.3 | 69.83 | 75.24 | The Nilgiris | 89.63 | 73.39 | 81.44 | 87.75 |
| Erode | 75.49 | 55.26 | 65.51 | 70.59 | Theni | 82.5 | 61.41 | 72.01 | 77.59 |
| Kancheepuram | 84.82 | 70.21 | 77.61 | 83.63 | Thiruvallur | 84.62 | 68.23 | 76.54 | 82.47 |
| Kanniyakumari | 90.88 | 85.38 | 88.11 | 94.94 | Thiruvavarur | 85.59 | 68.36 | 76.9 | 82.86 |
| Karur | 80.42 | 57.3 | 68.74 | 74.07 | Thoothukudi | 88.66 | 75.64 | 81.96 | 88.31 |
| Krishnagiri | n.a | n.a | n.a | 63.82 | Tiruchirapalli | 87.16 | 71.19 | 79.16 | 74.07 |
| Madurai | 87.24 | 69.93 | 78.65 | 84.75 | Tirunelveli | 85.89 | 68.5 | 76.97 | 82.94 |
| Nagapattinam | 85.61 | 68.35 | 76.89 | 82.85 | Tiruvannamalai | 80.14 | 56.31 | 68.22 | 73.51 |
| Nammakkal | 78.02 | 57.04 | 67.66 | 72.9 | Vellore | 82.67 | 63.53 | 73.07 | 78.73 |
| Perambalur | 77.68 | 54.26 | 65.88 | 70.35 | Villupuram | 76.02 | 53.16 | 64.68 | 69.88 |
| Pudukkottai | 83.22 | 60.94 | 71.96 | 77.21 | Virudhunagar | 84.56 | 64.09 | 74.23 | 79.98 |
| State | 82.33 | 64.55 | 73.47 | 79.16 | | | | | |

Source: Census of India, 2001 and Eleventh Five Year Plan: Tamil Nadu, State Planning Commission, 2007.
n.a – not available (Krishnagiri was a part of Dharmapuri district in 2001).

2.4 Elementary Education

The earlier policy for universalisation of elementary education in Tamil Nadu envisaged the enrolment of all children in the age group of 5-10 and retaining them in the schools for a minimum of 5 years. With the implementation of a massive nationwide education programme "Sarva Shiksha Abhiyan" (SSA), the policy goal has been expanded to enroll and educate all children in the age group of 6-14 years.¹³ The state had a major lead in introducing innovative schemes like the Nutritious Noon Meal Schemes. The District Primary Education programme was launched in 4 districts during 1994-95 in the 1st phase and in 3 additional districts in 1997-98, covering classes I to V. Considering the progress attained by the state, SSA was launched in all districts, covering classes I to VIII.

a. Number of Institutions and Teachers

The numbers of institutions - primary as well as middle have been on the rise in Tamil Nadu. The state has committed to provide an elementary school in every hamlet with a

¹³ The SSA sets out to have all children completing five years of schooling by 2007, to have all children completing eight years of schooling by 2010, to eliminate gender and social disparities in primary schooling by 2007 and by 2010 in secondary schooling and to have universal retention of children in primary school by 2010.

population of more than 300, within a radius of 1 km (State Planning commission, 2007). During 10th Plan period, about 6000 new institutions were opened (Table 2.8). Since the beginning of the 11th Plan, about 1500 new schools - primary and middle have been opened (School Education Department, Policy Note, 2009-10).

Table 2.8 Elementary Education in Tamil Nadu: No. of Institutions, Teachers and Enrolment

| Year | No. of Institutions | | Enrolment (Lakh) | | Teachers | |
|---|---------------------|--------|------------------|--------|----------|--------|
| | Primary | Middle | Primary | Middle | Primary | Middle |
| <i>IXth Plan Period</i> | | | | | | |
| 1997-98 | 30796 | 5473 | 68.14 | 35.94 | 115651 | 64395 |
| 1998-99 | 30844 | 5538 | 66.69 | 33.76 | 115697 | 61719 |
| 1999-00 | 31052 | 5640 | 60.84 | 33.44 | 120449 | 58395 |
| 2000-01 | 31142 | 5703 | 57.09 | 35.51 | 121311 | 59892 |
| 2001-02 | 31488 | 5809 | 56.74 | 35.24 | 121483 | 59922 |
| <i>Xth Plan Period</i> | | | | | | |
| 2002-03 | 33394 | 6544 | 64.68 | 35.17 | 120524 | 59680 |
| 2003-04 | 32242 | 6825 | 65.91 | 36.97 | 121236 | 60079 |
| 2004-05 | 33470 | 7111 | 64.03 | 36.98 | 119969 | 56958 |
| 2005-06 | 34208 | 8017 | 63.78 | 36.34 | 115568 | 62156 |
| 2006-07 | 35146 | 8126 | 61.46 | 36.62 | 114644 | 64297 |
| <i>XIth Plan Period</i> | | | | | | |
| 2007-08 | 35287 | 8595 | 61.24 | 37.19 | 158898 | 94427 |
| 2008-09 | 35287 | 8629 | 61.48 | 37.3 | n.a | n.a |
| 2009-10 | n.a | n.a | 62.1 | 37.35 | n.a | n.a |

Source: Tamil Nadu- An Economic Appraisal (various issues) and DISE (2009); n.a - not available.

During the 9th Plan period (1997-98 to 2001-02), the elementary school enrolment in Tamil Nadu declined significantly, particularly at the primary level (i.e., it declined from 68.14 lakh to 56.74 lakh). This may be partly due to lower population growth and partly due to lower drop-outs.¹⁴ In 2002-03 (the beginning of the 10th Plan), primary school enrolment increased to 64.68 lakh. It reached 65.91 lakh level in 2003-04 and thereafter, it started declining continuously. However, the enrolment at middle schools increased from 35.17 lakh in 2002-03 to 37.35 lakh in 2009-10. The teachers strength (primary and middle) increased by about 1360 during the 9th Plan period. But it declined significantly during the 10th Plan. However, from the beginning of 11th Plan

¹⁴ According to Planning Commission (2004), the population of children aged 6-11 years in Tamil Nadu declined from 68.8 lakh in 1998 to 57.5 lakh in 2001.

onwards, both the numbers of teachers at both primary and middle schools have been on the rise.

b. Gross and Net Enrolment Ratios

Both Gross Enrolment Ratio (GER) and Net Enrolment Ratio (NER) have improved in the state overtime. During 2001-02 to 2006-07, the GER at primary level increased from 97.81 percent to 117.81 percent in Tamil Nadu while it increased from 92.14 percent to 111.4 percent in India. Tamil Nadu ranked six among the major states in terms of GER at primary level in 2006-07, next only to Madhya Pradesh (150.41 percent), Chhattisgarh (123.19 percent), Uttarakhand (122.29 percent), Rajasthan (120.17 percent) and Gujarat (120.12 percent). During 2001-02 to 2006-07, the GER of Tamil Nadu at middle stage increased from 92.57 percent to 109.2 percent and that of India only from 57.58 percent to 73.8 percent (Table 2.9). Interestingly, Tamil Nadu has the highest GER (middle stage) in the country.

Table 2.9: Gross Enrolment Ratio in Elementary Schools in Tamil Nadu an All-India: A Comparison

| Year | Tamil Nadu | | India | |
|----------|------------|---------------|---------|---------------|
| | Primary | Upper Primary | Primary | Upper Primary |
| 1998-99 | 108.31 | 92.91 | 92.14 | 57.58 |
| 1999-00 | 100.73 | 86.89 | 94.9 | 58.79 |
| 2000-01 | 96.44 | 92.8 | 95.66 | 58.64 |
| 2001-02 | 97.81 | 92.57 | 96.3 | 60.2 |
| 2002-03 | 115.5 | 99.08 | 95.39 | 60.99 |
| 2003-04 | 116.51 | 100.41 | 98.31 | 62.49 |
| 2004-05 | 118.41 | 107 | 107.8 | 69.93 |
| 2006-07 | 117.81 | 109.2 | 111.4 | 73.8 |
| 2007-08* | 117.83 | 114.95 | 113.94 | 69.88 |
| 2008-09* | 118.52 | 117.35 | 115.31 | 73.74 |

Source: Economic Survey (various years); * for these two years DISE, 2008-09.

During 2002-03 to 2009-10, the net enrolment ratio (NER) at primary level increased from 93 to 99.5 percent and at middle level from 90 to 98.8 percent (Table 2.10). The factors that help to sustain a higher enrolment ratio in the state include social demand for education, greater awareness, implementation of nutritious noon meal scheme, supply of free text books, free uniforms, free bus passes to students and general rise in the economic status of population. However, as said earlier the declining

trend in the absolute number of children in elementary education is attributed to the deceleration in the growth of population.

Table 2.10: Net Enrolment Ratio in Elementary Schools in Tamil Nadu

| Details | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Primary | 93 | 96 | 98 | 98 | 99.29 | 99.39 | 99.43 | 99.5 |
| Upper Primary | 90 | 94 | 97 | 98 | 98.25 | 98.62 | 98.67 | 98.76 |

Source: DISE (2009).

c. Pupil-teacher Ratio

The fall in the absolute number of enrolment and the rise in teacher strength led the state to decrease the pupil-teacher ratios (quality indicator) in both primary and middle levels. At primary level, the pupil-teacher ratio declined from 40 in 1997-98 to 28.67 in 2009-10 and at middle level it declined from 40 to 31 (Table 2.11).

Table 2.11: Pupil-Teacher Ratio in Elementary Schools

| Details | 1997-98 | 1998-99 | 1999-00 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 |
|---------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Primary | 40 | 38 | 35 | 41 | 39 | 36 | 41 | 30 | 29 | 30 | 29 |
| Upper Primary | 40 | 36 | 40 | 49 | 42 | 46 | 54 | 38 | 36 | 34 | 31 |

Source: DISE (2009).

d. Drop-out Rate

A major indicator of educational performance and efficiency is the dropout rate at each stage of education. The drop-out rate also measures the ability of the system to retain the enrolled children. At the beginning of 9th Plan, the state had a high drop out rate in both primary and middle levels. During the 9th Plan period, the drop out at primary level declined marginally from 15.05 percent to 14.31 percent. However, it reduced significantly to 1.91 percent at the end of the 10th Plan (2006-07) and further to 1.02 percent in 2009-10. The drop-out rate at middle school also declined significantly from 29.99 percent in 1997-98 to 1.88 percent in 2009-10 (Table 2.12). The implementation of SSA is the major factor in reducing dropout rates. The factors that helped improving the enrolment ratio are also equally relevant for declining drop-out rates.

Table 2.12: Drop-out Rates in Primary and Middle Schools in Tamil Nadu

(Percent)

| Year | Primary | Upper Primary | Year | Primary | Upper Primary | Year | Primary | Upper Primary |
|-----------------------|---------|---------------|----------------------|---------|---------------|-----------------------|---------|---------------|
| <i>IX Plan Period</i> | | | <i>X Plan Period</i> | | | <i>XI Plan Period</i> | | |
| 1997-98 | 15.05 | 29.99 | 2002-03 | 12.00 | 13.00 | 2007-08 | 1.40 | 2.04 |
| 1998-99 | 14.52 | 35.23 | 2003-04 | 8.00 | 10.00 | 2008-09 | 1.23 | 1.90 |
| 1999-00 | 14.41 | 35.43 | 2004-05 | 6.00 | 9.00 | 2009-10 | 1.02 | 1.88 |
| 2000-01 | 14.40 | 35.59 | 2005-06 | 4.00 | 8.00 | | | |
| 2001-02 | 14.31 | 35.07 | 2006-07 | 1.91 | 4.08 | | | |

Source: Tamil Nadu- An Economic Appraisal (various issues) and DISE (2009).

e. Completion and Repetition Rate

At the end of 9th Plan, the internal efficiency of the school system in the state was strongly influenced not only by the dropout rates but also by the high level of repetition rates. The repetition rates at primary and middle levels were 24 and 19 percent respectively in 2002-03. But they declined significantly to 1.95 and 5.08 in 2009-10. At the same time, the completion rate increased from 64 to 97.03 percent at primary level and from 68 to 93.04 percent at middle stage (Table 2.13).

Table 2.13: Completion and Repetition Rates in Elementary Schools

(Percent)

| Year | Completion Rate | | Repetition Rate | |
|---------|-----------------|---------------|-----------------|---------------|
| | Primary | Upper Primary | Primary | Upper Primary |
| 2002-03 | 64 | 68 | 24 | 19 |
| 2003-04 | 69 | 74 | 23 | 16 |
| 2004-05 | 75 | 79 | 19 | 12 |
| 2005-06 | 78 | 82 | 19 | 10 |
| 2006-07 | 87 | 89 | 12 | 7 |
| 2007-08 | 92 | 91 | 6 | 7 |
| 2008-09 | 94 | 93 | 5 | 5 |
| 2009-10 | 97 | 93 | 2 | 5 |

Source: DISE (2009).

f. Illiterate and Out of School Children

According to National Family Health Survey, in 1998-99, 9.5 percent of children in the age group of 6-14 years were illiterate in Tamil Nadu. But by 2005-06, the illiteracy rate fell to 6.1 percent (Table 2.14).

Table 2.14: Illiterate Children in the Age Group of 6-11 years in Tamil Nadu
(Percent)

| Details | Urban | | | Rural | | | Total | | |
|---------------------------|-------|--------|------|-------|--------|------|-------|--------|------|
| | Male | Female | All | Male | Female | All | Male | Female | All |
| NFHS-II (1998-99) | 11.2 | 14.6 | 12.9 | 20.2 | 25.5 | 22.8 | 17.8 | 22.0 | 19.5 |
| NFHS- III(2005- 06) | 4.8 | 6.1 | 5.4 | 5.0 | 8.2 | 6.6 | 4.9 | 7.3 | 6.1 |

Source: National Family Health Survey, II and III.

The state has taken persistent effort to enroll and mainstream out of school children aged 6-14 years. To achieve the objective of near universal enrolment, specific intervention programs were undertaken to cover the out of school children under AIE component. The household survey 2001 identified 5.74 lakh of out of school children in the state. Due to these concerted efforts, the target for out of school children reduced to 66896 in 2009-10. In 2010-11, the target is only 56113 (Table 2. 15).

Table 2.15: Out of School Children in the Age Group of 6-14 in Tamil Nadu

| Year | 2002- 03 | 2003- 04 | 2004- 05 | 2005- 06 | 2006- 07 | 2007- 08 | 2008- 09 | 2009- 10 |
|--------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Target | 574069 | 466069 | 279458 | 169262 | 111989 | 103261 | 86414 | 66896 |

Source: SSA (2010-11).

g. Performance of Elementary Education at Districts

Table 2.16 provides the details of district wise enrolment at both primary and middle schools and proportions of girls and SC/ST students in 2009-10. Chennai and Coimbatore have the highest share (above 6 percent) of total enrolment at both primary and upper primary.

The proportion of girls enrolled in Tamil Nadu at primary and middle level is about 48.5 percent. About 26 percent of children enrolled in elementary schools belong to SC/ST. The following districts have more than 26 percent of SC/ST students: Cuddalore, Kancheepuram, Nagapattinam, Namakkal, Perambalur, The Nilgiris, Thiruvallur, Thiruvavarur, and Villupuram.

Table 2.16: District wise Enrolment in Primary & Upper Primary Schools in Tamil Nadu: 2009-10

| Districts | Primary | | | | Upper Primary | | | |
|-------------------|----------------|--------------|-------------|-------------|----------------|--------------|-------------|-------------|
| | Enrolment | % share | % of girls | % of SC/ST | Enrolment | % share | % of girls | % of SC/ST |
| Chennai | 393649 | 6.3 | 49.4 | 24.2 | 245192 | 6.6 | 49.6 | 23.5 |
| Coimbatore | 389407 | 6.3 | 49.1 | 22.5 | 249481 | 6.7 | 48.9 | 23.6 |
| Cuddalore | 233796 | 3.8 | 48.7 | 36.9 | 140083 | 3.8 | 48.4 | 35.6 |
| Dharmapuri | 136774 | 2.2 | 46.7 | 21.6 | 87063 | 2.3 | 45.5 | 21.6 |
| Dindigul | 185827 | 3.0 | 48.1 | 25.6 | 111007 | 3.0 | 47.4 | 25.3 |
| Erode | 201676 | 3.3 | 48.1 | 24.0 | 133865 | 3.6 | 46.9 | 22.0 |
| Kancheepuram | 311632 | 5.0 | 48.9 | 33.9 | 190235 | 5.1 | 48.2 | 35.1 |
| Kanyakumari | 151835 | 2.4 | 49.2 | 7.1 | 90163 | 2.4 | 48.9 | 8.2 |
| Karur | 85400 | 1.4 | 47.9 | 25.0 | 51641 | 1.4 | 47.7 | 24.1 |
| Krishnagiri | 192495 | 3.1 | 48.0 | 16.4 | 99944 | 2.7 | 47.7 | 18.4 |
| Madurai | 272641 | 4.4 | 48.1 | 17.6 | 158683 | 4.2 | 47.9 | 16.7 |
| Nagapattinam | 147418 | 2.4 | 49.2 | 38.1 | 94924 | 2.5 | 48.2 | 39.7 |
| Namakkal | 134717 | 2.2 | 47.6 | 26.8 | 85019 | 2.3 | 46.0 | 25.9 |
| Perambalur | 119319 | 1.9 | 48.5 | 32.2 | 73143 | 2.0 | 48.1 | 31.4 |
| Pudukkottai | 147640 | 2.4 | 49.0 | 19.9 | 85531 | 2.3 | 49.1 | 20.4 |
| Ramanathapuram | 124771 | 2.0 | 48.5 | 22.4 | 71107 | 1.9 | 48.4 | 22.4 |
| Salem | 298852 | 4.8 | 46.9 | 23.7 | 179632 | 4.8 | 46.4 | 23.0 |
| Sivagangai | 113481 | 1.8 | 48.9 | 20.0 | 72705 | 1.9 | 48.2 | 20.6 |
| Thanjavur | 212655 | 3.4 | 48.8 | 24.0 | 131920 | 3.5 | 48.7 | 24.9 |
| Theni | 119891 | 1.9 | 47.0 | 26.7 | 68420 | 1.8 | 46.5 | 25.8 |
| The Nilgiris | 63904 | 1.0 | 48.9 | 49.0 | 39451 | 1.1 | 48.5 | 47.1 |
| Thiruchirappalli | 231039 | 3.7 | 48.7 | 22.8 | 145745 | 3.9 | 48.2 | 24.1 |
| Thirunelveli | 306615 | 4.9 | 48.7 | 22.3 | 174886 | 4.7 | 48.5 | 21.4 |
| Thiruvallur | 302266 | 4.9 | 48.6 | 30.9 | 178068 | 4.8 | 48.3 | 30.8 |
| Thiruvannamalai | 206736 | 3.3 | 48.7 | 31.7 | 123511 | 3.3 | 48.6 | 27.5 |
| Thiruvarur | 109504 | 1.8 | 49.1 | 41.9 | 70641 | 1.9 | 48.6 | 43.5 |
| Thoothukudi | 160275 | 2.6 | 48.9 | 24.4 | 93595 | 2.5 | 48.4 | 23.9 |
| Vellore | 362953 | 5.9 | 48.5 | 26.6 | 221229 | 5.9 | 48.8 | 27.5 |
| Villupuram | 297703 | 4.8 | 49.1 | 37.9 | 164669 | 4.4 | 49.0 | 36.1 |
| Virudhunagar | 185585 | 3.0 | 48.9 | 25.8 | 103615 | 2.8 | 48.6 | 25.4 |
| Tamil Nadu | 6200456 | 100.0 | 48.5 | 26.3 | 3735168 | 100.0 | 48.2 | 26.1 |

Source: DISE, 2009.

At the beginning of the 10th Plan (2002-03), the NER at primary level was below the state average of 93 percent in Chennai (77 percent), Dindigul (86 percent), Thanjavur (87 percent) and Theni (88 percent). However, these districts along with others made significant strides in improving the NER. Now, in all districts, the NER is above 99 percent. Although Chennai, Dharmapuri, Dindigul, Karur, Krishnagiri,

Nagapattinam, Perambalur, Salem, Thanjavur, Theni, Thirunelveli, and Thoothukudi had the NER at middle school level which was below the state average of 90 percent in 2002-03, they improved their rates. Currently in all districts the rate is above 97 percent (Table 2.17).

Table 2.17: District Wise Net Enrolment in Elementary Schools in Tamil Nadu: 2002-03 and 2009-10

| Districts | Primary | | | Upper Primary | | |
|-----------------|---------|---------|--------|---------------|---------|--------|
| | 2002-03 | 2009-10 | Change | 2002-03 | 2009-10 | Change |
| Chennai | 77 | 99.4 | 22.4 | 84 | 98.86 | 14.86 |
| Coimbatore | 92 | 99.51 | 7.51 | 91 | 98.73 | 7.73 |
| Cuddalore | 95 | 99.67 | 4.67 | 92 | 99.42 | 7.42 |
| Dharmapuri | 90 | 99.07 | 9.07 | 84 | 97.4 | 13.4 |
| Dindigul | 86 | 99.09 | 13.09 | 82 | 97.82 | 15.82 |
| Erode | 92 | 99.58 | 7.58 | 92 | 99.82 | 7.82 |
| Kancheepuram | 95 | 99.35 | 4.35 | 96 | 99.36 | 3.36 |
| Kanyakumari | 99 | 99.58 | 0.58 | 99 | 99.37 | 0.37 |
| Karur | 91 | 99.51 | 8.51 | 86 | 99.2 | 13.2 |
| Krishnagiri | 91 | 98.9 | 7.9 | 84 | 97.68 | 13.68 |
| Madurai | 98 | 99.7 | 1.7 | 97 | 98.29 | 1.29 |
| Nagapattinam | 91 | 99.5 | 8.5 | 87 | 98.89 | 11.89 |
| Namakkal | 96 | 99.6 | 3.6 | 92 | 96.19 | 4.19 |
| Perambalur | 92 | 99.77 | 7.77 | 86 | 98.98 | 12.98 |
| Pudukkottai | 95 | 99.63 | 4.63 | 92 | 99.67 | 7.67 |
| Ramanadapuram | 97 | 99.39 | 2.39 | 95 | 98.39 | 3.39 |
| Salem | 91 | 99.6 | 8.6 | 88 | 98.54 | 10.54 |
| Sivagangai | 95 | 99.55 | 4.55 | 95 | 97.73 | 2.73 |
| Thanjavur | 87 | 99.19 | 12.19 | 83 | 98.7 | 15.7 |
| Theni | 88 | 99.63 | 11.63 | 86 | 99.32 | 13.32 |
| The | 95 | 99.81 | 4.81 | 90 | 97.57 | 7.57 |
| Thiruchirapalli | 99 | 99.62 | 0.62 | 93 | 99.17 | 6.17 |
| Thirunelveli | 97 | 99.64 | 2.64 | 84 | 99.04 | 15.04 |
| Thiruvallur | 97 | 99.52 | 2.52 | 92 | 99.38 | 7.38 |
| Tiruvannamalai | 97 | 99.41 | 2.41 | 90 | 98.47 | 8.47 |
| Thiruvarur | 90 | 99.22 | 9.22 | 95 | 98.5 | 3.5 |
| Thoothukudi | 95 | 99.82 | 4.82 | 85 | 98.17 | 13.17 |
| Vellore | 93 | 99.6 | 6.6 | 90 | 99.56 | 9.56 |
| Villupuram | 97 | 99.57 | 2.57 | 98 | 98.67 | 0.67 |
| Virudhunagar | 94 | 99.72 | 5.72 | 93 | 98.34 | 5.34 |
| Tamil Nadu | 93 | 99.5 | 6.5 | 90 | 98.76 | 8.76 |

Source: DISE, 2009.

In 2002-03, in 15 out of 30 districts, the drop-out rate was above the state average at both primary and middle stages. However, in 2009-10, in all districts the drop rate is at minimum, i.e., about 1 percent (Table 2.18).

Table 2.18: Drop-out Rates at Various Districts in Tamil Nadu

| Districts | Primary | | Upper Primary | | Districts | Primary | | Upper Primary | |
|-------------------|---------|---------|---------------|---------|--------------|---------|---------|---------------|---------|
| | 2002-03 | 2009-10 | 2002-03 | 2009-10 | | 2002-03 | 2009-10 | 2002-03 | 2009-10 |
| Chennai | 34 | 1.1 | 15 | 1.59 | Ramanatpuram | 6 | 0.56 | 13 | 0.93 |
| Coimbatore | 12 | 1.4 | 11 | 1.96 | Salem | 19 | 2.15 | 20 | 2.71 |
| Cuddalore | 7 | 0.42 | 10 | 1.82 | Sivagangai | 19 | 0.53 | 17 | 1.99 |
| Dharmapuri | 13 | 2.15 | 15 | 2.89 | Thanjavur | 14 | 1.13 | 19 | 1.86 |
| Dindigul | 14 | 1.47 | 18 | 2.13 | Theni | 11 | 1.24 | 9 | 1.81 |
| Erode | 18 | 1.27 | 18 | 2.04 | The Nilgiris | 8 | 1.03 | 8 | 1.78 |
| Kancheepuram | 13 | 0.54 | 16 | 1.2 | Thiruchy | 7 | 0.65 | 9 | 1.38 |
| Kanyakumari | 2 | 0.48 | 1 | 1.04 | Thirunelveli | 13 | 0.35 | 19 | 1.66 |
| Karur | 14 | 1.33 | 16 | 2.24 | Thiruvallur | 8 | 1.38 | 9 | 1.67 |
| Krishnagiri | 13 | 1.58 | 15 | 2.64 | T.V.malai | 9 | 1.06 | 12 | 2.12 |
| Madurai | 10 | 0.8 | 11 | 1.72 | Thiruvavur | 14 | 0.6 | 17 | 1.73 |
| Nagapattinam | 8 | 0.49 | 4 | 1.69 | Thoothukudi | 8 | 1.01 | 13 | 1.83 |
| Namakkal | 14 | 1.64 | 11 | 2.44 | Vellore | 15 | 0.97 | 13 | 2.2 |
| Perambalur | 9 | 0.37 | 11 | 1.65 | Villupuram | 10 | 1.05 | 14 | 2.23 |
| Pudukkottai | 9 | 0.8 | 12 | 1.57 | Virudhunagar | 17 | 1.04 | 9 | 1.92 |
| Tamil Nadu | | | | | | 12 | 1.02 | 13 | 1.88 |

Source: DISE, 2009.

2.5. High and Higher Secondary School Education

Though there are different types of secondary and senior secondary schools functioning in Tamil Nadu, majority of students are enrolled in the State Board and the Central Board schools. The growth pattern of students at the secondary and senior secondary schools is shown in Table 2.19. During 1996-97 to 2007-08, the enrolment in class IX-X increased from 16.9 lakh to 20.63 lakh and the enrolment in class XI-XII from 6.5 lakh to 12.91 lakh (almost doubled).

Table 2.19: Enrolment in Classes IX to XII in Tamil Nadu

| Year | (Lakh) | | | | | | | | | |
|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | 1996-97 | 1999-00 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
| Class IX&X | 16.9 | 15.4 | 15.9 | 16.81 | 17.6 | 18.99 | 19.3 | 20.01 | 20.63 | n.a |
| Class XI&XII | 6.5 | 7.15 | 8.98 | 9.85 | 10.15 | 10.54 | 10.8 | 11.52 | 12.56 | 12.91 |

Source: Tamil Nadu: Economic Appraisal (various issues); n.a-not available.

According to an estimate, nearly 83 percent of children aged 14-16 were enrolled in 2007-08 and about 51 percent of children aged 16-18 were enrolled (Table 2.20).

Table 2.20: High School Age Population and Enrolment

| Age Group | 2006-07 | | | 2007-08 | |
|-----------|--------------------|-------------------|-------|-------------------|-------|
| | Population in Lakh | Enrolment in Lakh | % | Enrolment in Lakh | % |
| 14 -16 | 24.84 | 20.01 | 80.56 | 20.63 | 83.05 |
| 16-18 | 24.65 | 11.52 | 46.73 | 12.56 | 50.95 |

Source: Tamil Nadu Statistical Hand Book (2010), Government of Tamil Nadu.

At high school level, the drop out rate reduced marginally from 61.06 percent in 1997-98 to 57.29 percent in 200-04 (Table 2.21). It is still the major area of concern.

Table 2.21: Drop-out Rates in High School

(Percent)

| Details | 1997-98 | 1998-99 | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04 |
|---------|---------|---------|---------|---------|---------|---------|---------|
| Boys | 57.04 | 57.72 | 57.97 | 57.86 | 57.34 | 57.24 | 57.12 |
| Girls | 65.74 | 58.35 | 57.85 | 57.91 | 57.79 | 57.51 | 57.37 |
| Total | 61.06 | 58.01 | 57.92 | 57.89 | 57.55 | 57.37 | 57.29 |

Source: Tamil Nadu: Economic Appraisal (various issues).

The major challenge before secondary education is that of meeting the surge in demand due to success of SSA. A new scheme called "Scheme for Universalisation of Access to Secondary Education (SUCCESS)" is launched during the Eleventh Five Year Plan. The main objective of the programme is to make secondary education of good quality available, accessible and affordable to all young students in the age group of 15-16 years. The target of the scheme is:

- Universal access of secondary level education to all students in the age group of 15-16 years by 2015, and
- Universal retention by 2020.

This scheme envisages provision of:

- necessary infrastructure and resources in the secondary education sector to create higher capacity in secondary schools in the country and for improvement in quality of learning in the school,
- filling the missing gaps in the existing secondary school system,
- extra support for education of girls, rural children and students belonging to SC/ST, minority and other weaker sections of the society, and

- iv) a holistic convergent framework for implementation of various schemes in secondary education.

2.6 Quality of School Education

In order to ensure that class room processes are on constant improvement so that all children attending school regularly achieve mastery of academic skills, 13 indicators have been developed. Using them the schools are graded as A, B and C. In 2007, only 19 percent of schools achieved A grade. But in 2009, 66.7 percent of schools achieved A grade. The percentage of school obtained C grade declined from 23.2 in 2007 to 0.8 in 2009. About 33 percent of the schools should improve to A grade category (Table 2.22).

Table 2.22: Grading Schools based on Class Room Processes

| Year | A Grade | B Grade | (Percent) |
|------|---------|---------|-----------|
| | | | C Grade |
| 2007 | 19.3 | 57.5 | 23.2 |
| 2008 | 45.5 | 50.6 | 4.0 |
| 2009 | 66.7 | 32.5 | 0.8 |

Source: SSA (2010-11).

Table 2.23 shows the details of school's grade in various districts in 2009. Chennai, Maduria and Ramanathapuram districts each have more than 50 percent of their schools with B and C grades. About more than 40 percent of schools in Cuddalore, Erode, Kancheepuram, Kanyakumari, Pudukkottai, and Trichirappalli have either B or C Grades. They need to improve.

The Government has taken a major policy decision to implement *Equitable Standard School Education* to provide equitable quality education to all children in the state. The new system will be introduced from Standards I to VI from 2010-11 onwards by amalgamating the existing four Boards of education namely, *State Board, Matriculation, Anglo-Indian and Oriental system* in to one. In the new system, the syllabus, text books and examination system will be common. The same scheme will cover Standards VII to X from 2012-13. The draft syllabi for Standard I to X has been already prepared by taking best portions in the syllabi of all boards.

Table 2.23: Grading Schools in Districts based on Class Room Processes in 2009

| Districts | Number of Schools | A Grade | % | B Grade | % | C Grade | % |
|------------------|--------------------------|----------------|----------|----------------|----------|----------------|----------|
| Chennai | 470 | 214 | 45.5 | 239 | 50.9 | 17 | 3.6 |
| Coimbatore | 1834 | 1640 | 89.4 | 184 | 10 | 10 | 0.5 |
| Cuddalore | 1415 | 724 | 51.2 | 690 | 48.8 | 1 | 0.1 |
| Dharmapuri | 1155 | 901 | 78 | 247 | 21.4 | 7 | 0.6 |
| Dindigul | 1402 | 1248 | 89 | 152 | 10.8 | 2 | 0.1 |
| Erode | 1699 | 937 | 55.2 | 759 | 44.7 | 3 | 0.2 |
| Kancheepuram | 1355 | 799 | 59 | 556 | 41 | 0 | 0 |
| Kanyakumari | 569 | 336 | 59.1 | 228 | 40.1 | 5 | 0.9 |
| Karur | 749 | 457 | 61 | 292 | 39 | 0 | 0 |
| Krishnagiri | 1414 | 854 | 60.4 | 521 | 36.8 | 39 | 2.8 |
| Madurai | 1241 | 614 | 49.5 | 624 | 50.3 | 3 | 0.2 |
| Nagapattinam | 1032 | 704 | 68.2 | 311 | 30.1 | 17 | 1.6 |
| Namakkal | 915 | 677 | 74 | 228 | 24.9 | 10 | 1.1 |
| Perambalur | 846 | 588 | 69.5 | 255 | 30.1 | 3 | 0.4 |
| Pudukkottai | 1408 | 715 | 50.8 | 688 | 48.9 | 5 | 0.4 |
| Ramanathapuram | 1162 | 578 | 49.7 | 560 | 48.2 | 24 | 2.1 |
| Salem | 1534 | 1020 | 66.5 | 502 | 32.7 | 12 | 0.8 |
| Sivagangai | 1118 | 791 | 70.8 | 327 | 29.2 | 0 | 0 |
| Thanjavur | 1379 | 941 | 68.2 | 438 | 31.8 | 0 | 0 |
| The Nilgiris | 455 | 340 | 74.7 | 95 | 20.9 | 20 | 4.4 |
| Theni | 629 | 451 | 71.7 | 175 | 27.8 | 3 | 0.5 |
| Thiruchirappalli | 1338 | 709 | 53 | 626 | 46.8 | 3 | 0.2 |
| Thirunelveli | 1883 | 1318 | 70 | 484 | 25.7 | 81 | 4.3 |
| Thiruvallur | 1354 | 1096 | 80.9 | 257 | 19 | 1 | 0.1 |
| Thiruvannamalai | 1767 | 1264 | 71.5 | 503 | 28.5 | 0 | 0 |
| Thiruvarur | 890 | 730 | 82 | 159 | 17.9 | 1 | 0.1 |
| Thoothukudi | 1350 | 1126 | 83.4 | 220 | 16.3 | 4 | 0.3 |
| Vellore | 2122 | 1300 | 61.3 | 805 | 37.9 | 17 | 0.8 |
| Villupuram | 2022 | 1368 | 67.7 | 637 | 31.5 | 17 | 0.8 |
| Virudhunagar | 1205 | 722 | 59.9 | 476 | 39.5 | 7 | 0.6 |
| Tamil Nadu State | 37712 | 7273 | 66.7 | 21696 | 32.5 | 8743 | 0.8 |

Source: SSA (2010-11).

In the new equitable system, class rooms will no longer be a place for passive listeners, but buzzle with enthusiastic learners. *Computer education* will be taught from class VI to X. Students will also get exposure to economics from class VI. Library periods will be part of the daily timetable. The government has promulgated Tamil Nadu Uniform System of School Education Ordinance, 2009 to implement *Equitable Standard School Education*.

2.7 Educational Development Index

Table 2.24 shows the educational development index (EDI) computed by National University of Educational Planning and Administration and Ministry of Human Resource and Development for primary, upper primary and for entire elementary education.

Table 2.24: Composite Education Development Index (2008-09)

| Districts | Primary | | Upper Primary | | Composite Primary & Upper Primary | |
|-------------------------|---------|------|---------------|------|-----------------------------------|------|
| | EDI | Rank | EDI | Rank | EDI | Rank |
| Andama & Nicobar Island | 0.664 | 12 | 0.809 | 4 | 0.736 | 7 |
| Andhra Pradesh | 0.657 | 15 | 0.746 | 11 | 0.702 | 14 |
| Arunachal Pradesh | 0.512 | 29 | 0.519 | 31 | 0.516 | 30 |
| Assam | 0.446 | 35 | 0.519 | 32 | 0.483 | 33 |
| Bihar | 0.48 | 32 | 0.447 | 35 | 0.463 | 34 |
| Chandigarh | 0.688 | 10 | 0.756 | 9 | 0.722 | 10 |
| Chhattisgarh | 0.554 | 26 | 0.6 | 25 | 0.577 | 26 |
| Dadar & Nagar Haveli | 0.594 | 22 | 0.64 | 22 | 0.617 | 22 |
| Daman & Diu | 0.654 | 17 | 0.801 | 5 | 0.728 | 9 |
| Delhi | 0.701 | 6 | 0.762 | 7 | 0.732 | 8 |
| Goa | 0.658 | 14 | 0.697 | 17 | 0.678 | 17 |
| Gujarat | 0.698 | 7 | 0.706 | 16 | 0.702 | 13 |
| Haryana | 0.714 | 4 | 0.789 | 6 | 0.752 | 4 |
| Himachal Pradesh | 0.611 | 21 | 0.746 | 12 | 0.679 | 16 |
| Jammu & Kashmir | 0.586 | 24 | 0.661 | 21 | 0.623 | 21 |
| Jharkhand | 0.449 | 34 | 0.464 | 33 | 0.456 | 35 |
| Karnataka | 0.693 | 8 | 0.723 | 15 | 0.708 | 12 |
| Kerala | 0.689 | 9 | 0.822 | 3 | 0.756 | 3 |
| Lakshadweep | 0.773 | 2 | 0.851 | 2 | 0.812 | 2 |
| Madhya Pradesh | 0.571 | 25 | 0.585 | 26 | 0.578 | 25 |
| Maharashtra | 0.66 | 13 | 0.74 | 14 | 0.7 | 15 |
| Manipur | 0.464 | 33 | 0.63 | 24 | 0.547 | 27 |
| Meghalaya | 0.498 | 31 | 0.522 | 30 | 0.51 | 31 |
| Mizoram | 0.686 | 11 | 0.741 | 13 | 0.714 | 11 |
| Nagaland | 0.633 | 20 | 0.675 | 20 | 0.654 | 20 |
| Orissa | 0.553 | 27 | 0.537 | 29 | 0.545 | 28 |
| Pondicherry | 0.797 | 1 | 0.884 | 1 | 0.841 | 1 |
| Punjab | 0.714 | 5 | 0.76 | 8 | 0.737 | 6 |
| Rajasthan | 0.587 | 23 | 0.636 | 23 | 0.612 | 24 |
| Sikkim | 0.657 | 16 | 0.683 | 18 | 0.67 | 18 |
| Tamil Nadu | 0.747 | 3 | 0.753 | 10 | 0.75 | 5 |
| Tripura | 0.501 | 30 | 0.577 | 27 | 0.539 | 29 |
| Uttar Pradesh | 0.654 | 18 | 0.573 | 28 | 0.614 | 23 |
| Uttarakhand | 0.643 | 19 | 0.679 | 19 | 0.661 | 19 |
| West Bengal | 0.528 | 28 | 0.459 | 34 | 0.494 | 32 |

Source: Lok Sabha Unstarred Question No. 2213, dated on 10.03.2010.

Tamil Nadu ranks fifth in terms of composite index for elementary education, next only to Pondicherry, Lakshadweep, Kerala and Haryana. It ranks third and tenth in terms of EDI for primary and upper primary (Table 2.24).

2.8 A Note on Higher Education in Tamil Nadu

Tamil Nadu is one of the most advanced states in the country in the field of higher education. The state government endeavors to make higher education more accessible to the economically weaker sections and rural students. There are 548 Arts and Science colleges, 564 colleges of education, 13 physical education colleges, 10 oriental colleges, 8 university colleges and 2 schools of social works in the state. About 6.86 lakh students are pursuing their higher studies in these colleges (Table 2.25). Of these, 3.68 lakh are girl students.

Table 2.25: Number of Students in Arts and Science Colleges in Tamil Nadu

| College Type | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
|------------------|---------|---------|---------|---------|---------|
| Govt/ University | 99487 | 104700 | 112481 | 127371 | 130648 |
| Self Financing | 151414 | 176766 | 193134 | 237879 | 241168 |
| Govt Aided | 274535 | 286760 | 294521 | 309236 | 314050 |
| All | 525436 | 568226 | 600136 | 674486 | 685866 |

Source: Policy Note (Demand No. 20): Higher Education (2009-10).

There are 64 universities/Deemed to be universities, 355 engineering and 317 Polytechnic colleges in the state. The Government has taken the following steps to increase the enrolment in higher education:

- The Common Entrance Test for admission to Professional Courses was abolished in 2007-08. This enabled more students from rural and weaker sections to join professional courses.
- 65 percent of the Engineering seats in Non-minority institutions and 50 percent seats in minority institutions are allotted through Single Window System of Anna University, Chennai. This has enabled the poor/meritorious students to join professional courses at an affordable cost.
- Minimum marks prescribed for the engineering admission has been reduced for all categories of students since 2007-08.
- Counseling by single window system for B.Ed., admission in all Government and Government aided colleges was introduced in 2007-08.
- Single window system through counseling was also introduced for admissions in Government Arts and Science Colleges from 2007-08.

In order to ensure access to higher education to the rural students and youth from economically weaker sections, the state government has taken the following measures:

- Self supporting courses in Government Engineering Colleges and Arts & Science Colleges are converted into regular courses.
- Students studying in U.G. courses in Government and Government Aided Arts & Science Colleges are exempted from payment of tuition fees from 2007-08 onwards.
- To encourage girl students hailing from poor families to pursue P.G. degree courses, the Periyar EVR Nagammai Free Education scheme to women students has been introduced since 2007-08.
- Tuition fees in the Government Engineering Colleges has been reduced from Rs.12,550 to Rs.7,550 from 2006-07.
- Tuition fees has been waived for all studying in Government Polytechnic Colleges from 2008-09 onwards.
- All physically handicapped students studying in Government/Government aided Arts Colleges, Engineering colleges, Polytechnics and the Universities under the aegis of Higher Education Department are exempted from the payment of tuition fees.
- Maths, Chemistry and Physics text books are given free of cost to the students studying in Government Polytechnic Colleges from 2007-08.
- Free bus passes are issued to all the students of Government. Arts and Science Colleges, and Government Polytechnic Colleges.

Table 2.26 provides the details of growth of enrolment in engineering and polytechnic colleges in Tamil Nadu over time. The enrolment in engineering colleges increased from 51,004 in 2004-05 to 1,22,931 in 2008-09. During the same period, the enrolment in polytechnic increased from 47329 to 100977 (Table 2.26).

Table 2.26: Enrolment in Engineering and Polytechnic Colleges in Tamil Nadu

| Details | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
|---|---------|---------|---------|---------|---------|
| <i>Enrolment in Engineering Colleges</i> | | | | | |
| Anna Uni. Colleges | 1538 | 1575 | 1664 | 1681 | 4366 |
| Govt. Aided | 1675 | 1728 | 1788 | 2209 | 2429 |
| Self Financing | 45934 | 62648 | 70291 | 89985 | 114270 |
| Govt Colleges | 1857 | 1885 | 1874 | 1933 | 1866 |
| All | 51004 | 67836 | 75617 | 95808 | 122931 |
| <i>Enrolment in Polytechnic Colleges</i> | | | | | |
| Govt Colleges | 4824 | 4984 | 5026 | 5031 | 5747 |
| Govt Aided | 10135 | 11317 | 11264 | 12619 | 12753 |
| Self Financing | 32370 | 41745 | 49924 | 64121 | 82477 |
| All | 47329 | 58046 | 66214 | 81771 | 100977 |

Source: Policy Note (Demand No. 20): Higher education (2009-10).

2. 9 Summary

Tamil Nadu compares well with country's average performance in respect of many education indicators. It ranks first in terms of gross enrolment ratio at middle schools, third in terms of education development index for primary and overall and female literacy, fifth in terms of composite index for elementary education, and sixth in terms of gross enrolment at primary level.

The general literacy in Tamil Nadu will likely to be 87.5 percent in 2012, which will be slightly lower than the target rate of 90 percent in 2012. However, the gender gap in the literacy will reduce to 10 percent level at the end of the 11th plan. Evidences indicate that the state is likely to meet the target of zero level drop-out rate at the elementary level.

Both GER and NER have improved overtime in both primary and middle levels. Teacher-pupil ratios have also improved significantly in both primary and middle stages. At high school level, the drop-out rate has reduced only marginally. This is still a major concern for the state. The major challenge before secondary education is that of meeting the surge in demand due to success of SSA.

Inter district differences still exist in few indicators. For instances, Kanniyakumari district achieved the highest literacy of 88.1 percent while Dharmapuri obtained the lowest rate of 59.2 percent. In 12 districts, the gender gap was more than 20 percent.

Regarding the quality of education, Chennai, Madurai and Ramanathapuram districts have more than 50 percent of their schools with B and C grades. About more than 40 percent of schools in Cuddalore, Erode, Kancheepuram, Kanyakumari, Pudukkottai, and Trichirappalli have either B or C Grades. They need to improve.

Chapter 3

PERFORMANCE OF HEALTH SECTOR IN TAMIL NADU

The main objective in this chapter is to assess the performance of health sector in Tamil Nadu in meeting its Eleventh Plan targets. With this in view, growths of specific Measurable Indicators from the Ninth Plan period are analyzed.

3.1. Eleventh Plan Targets Relating to Health

The National targets relating to health during the Eleventh Plan are: (i) Reducing infant mortality rate (IMR) to 28 and maternal mortality ratio (MMR) to 1 per 1000 live births by end of the Plan; (ii) total fertility rate (TFR) to be reduced to 2.1 by end of the Plan; (iii) clean drinking water to all by 2009; (iv) halve the malnutrition among children aged 0-3 years from its present level; and (v) halve the proportion of women and girls who are anemic from its present level.

The targets relating to health and women in Tamil Nadu state are: (i) reduce IMR to 18 and MMR to 0.45 per live births by 2012; (ii) reduce TFR to 1.7; (iii) reduce child (0-3 years) malnutrition to 16.6 percent; (iv) reduce the proportion of women who are anemic to 26.7 percent and (v) increase the sex ratio to 950 by 2012. In addition, the state has the target of reducing crude birth rate (CBR) to 15 and crude death rate (CDR) to 6 and increase the life expectancy of male to 69 years and that of female to 72 years.

First let us analyze the growth of government expenditure on health, family welfare and nutrition since Ninth Plan period and then review selective health indicators- IMR, MMR, TFR, child malnutrition, anemia among women and sex ratio over time in Tamil Nadu.

3.2. Financing of Medical and Public Health

The overall allocation for health and family welfare (under revenue account) increased from about Rs. 900 crore in 1997-98 (the beginning of 9th Plan) to about Rs. 3015 crore in 2009-10, registering 3.35 fold rise (in current prices). However, during the same period, it declined from 0.82 percent of GSDP to 0.76 percent and from 6.02 percent of total revenue expenditure to 5.08 percent (Table 3.1).

Table 3.1: Revenue Expenditures on Health and Family Welfare in Tamil Nadu

| Year | Medical and Public Health | | | Family Welfare (FW) | | | Medical, Public Health & FW | | |
|---|---------------------------|--------------|-------------|---------------------|--------------|-------------|-----------------------------|--------------|-------------|
| | Rs. crore | As % of GSDP | as % of RE* | Rs. crore | As % of GSDP | as % of RE* | Rs. crore | As % of GSDP | as % of RE* |
| <i>IXth Plan Period</i> | | | | | | | | | |
| 1997-98 | 746.0 | 0.68 | 4.99 | 153.6 | 0.14 | 1.03 | 899.6 | 0.82 | 6.02 |
| 1998-99 | 908.2 | 0.72 | 5.13 | 191.6 | 0.15 | 1.08 | 1099.8 | 0.88 | 6.21 |
| 1999-00 | 964.2 | 0.72 | 4.65 | 177.3 | 0.13 | 0.86 | 1141.5 | 0.85 | 5.51 |
| 2000-01 | 971.7 | 0.66 | 4.47 | 188.8 | 0.13 | 0.87 | 1160.5 | 0.79 | 5.34 |
| 2001-02 | 966.6 | 0.65 | 4.48 | 217.8 | 0.15 | 1.01 | 1184.4 | 0.80 | 5.49 |
| <i>Xth Plan Period</i> | | | | | | | | | |
| 2002-03 | 950.0 | 0.60 | 3.70 | 237.9 | 0.15 | 0.93 | 1187.9 | 0.75 | 4.62 |
| 2003-04 | 998.5 | 0.57 | 3.95 | 204.5 | 0.12 | 0.81 | 1203.0 | 0.69 | 4.76 |
| 2004-05 | 1111.3 | 0.55 | 3.81 | 192.9 | 0.10 | 0.66 | 1304.2 | 0.64 | 4.47 |
| 2005-06 | 1107.9 | 0.47 | 3.46 | 285.0 | 0.12 | 0.89 | 1392.9 | 0.59 | 4.35 |
| 2006-07 | 1309.7 | 0.47 | 3.42 | 242.2 | 0.09 | 0.63 | 1552.0 | 0.56 | 4.06 |
| <i>XIth Plan Period</i> | | | | | | | | | |
| 2007-08 | 1442.2 | 0.47 | 3.36 | 294.8 | 0.10 | 0.69 | 1737.1 | 0.57 | 4.04 |
| 2008-09 | 1895.1 | 0.56 | 3.54 | 393.4 | 0.12 | 0.73 | 2288.5 | 0.67 | 4.27 |
| 2009-10R | 2508.3 | 0.63 | 4.23 | 505.7 | 0.13 | 0.85 | 3014.0 | 0.76 | 5.08 |
| 2010-11B | 3049.2 | 0.70 | 4.59 | 534.2 | 0.12 | 0.80 | 3583.5 | 0.82 | 5.39 |

Source: Budget Documents, Government of Tamil Nadu (various years); Government of India, Central Statistical Organisation, EPW Research Foundation and Budget Speech of The Minister for Finance, 2010-11

*RE: Total Revenue Expenditures; R-Revised Estimates; and B- Budget Estimates.

Chart 3.1: Expenditures on Medical, Public Health and Family Welfare as % of GSDP

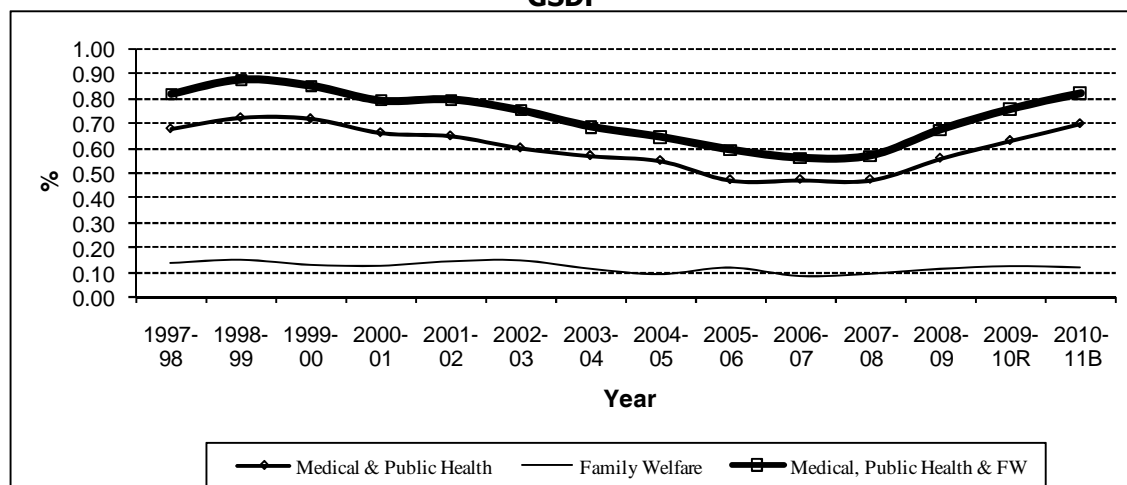


Chart 3.1 clearly shows that the expenditure on health and family welfare as percent of GSDP declined continuously till the end of 10th Plan (i.e, up to 2006-07) and thereafter it started to increase. But it is still lower than the level attained at the beginning of 9th Plan. The expenditure on medical and pubic health which is the major component of expenditure on health and family welfare shows a similar trend.

Chart 3.2 and Table 3.2 show that the expenditure on social security welfare and nutrition in Tamil Nadu as percent of GSDP has been continuously increasing from the beginning of 10th Plan period.

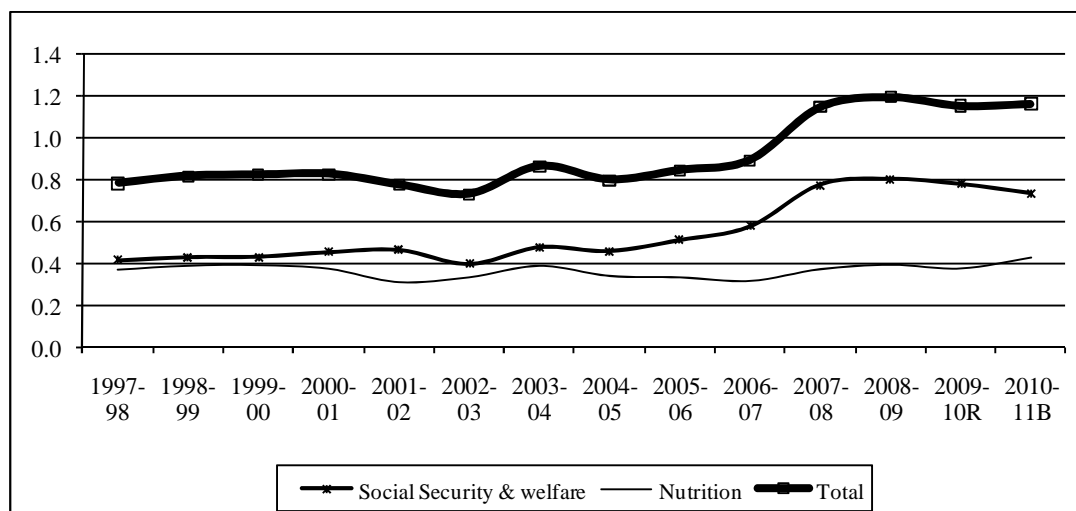
Table 3.2: Revenue Expenditure on Social Security& Welfare and Nutrition

(Rs. crore)

| Year | Social Security & Welfare | Nutrition | Total |
|---|---------------------------|-----------|--------|
| <i>IXth Plan Period</i> | | | |
| 1997-98 | 454.8 | 405.8 | 860.6 |
| 1998-99 | 539.0 | 486.8 | 1025.7 |
| 1999-00 | 579.1 | 523.9 | 1103.0 |
| 2000-01 | 664.8 | 548.0 | 1212.8 |
| 2001-02 | 689.6 | 463.0 | 1152.7 |
| <i>Xth Plan Period</i> | | | |
| 2002-03 | 626.6 | 527.6 | 1154.2 |
| 2003-04 | 836.4 | 679.0 | 1515.4 |
| 2004-05 | 927.8 | 687.7 | 1615.5 |
| 2005-06 | 1199.9 | 782.0 | 1981.9 |
| 2006-07 | 1594.8 | 876.6 | 2471.4 |
| <i>XIth Plan Period</i> | | | |
| 2007-08 | 2367.1 | 1133.2 | 3500.3 |
| 2008-09 | 2726.9 | 1330.5 | 4057.4 |
| 2009-10R | 3102.0 | 1491.7 | 4593.7 |
| 2010-11B | 3214.4 | 1861.5 | 5075.9 |

Source: As in Table 3.1

Chart 3.2: Expenditures on Social Security Welfare and Nutrition as % of GSDP



3.3. Demographic Indicators

As per 2001 Census, the state's population was 6.24 crore with a decadal growth of 11.72 percent which was the second lowest in the country next only to Kerala. It is projected to reach 6.514 crore in 2006 and 6.744 crore in 2011 (Table 3.3). The male and female population accounted for 50.3 percent and 49.7 percent respectively. The projection indicates that the sex ratio will exceed the target of 950 by the year 2012. The dependency rate per 1000 was 562 in 2001, indicating the necessity of the state to allocate sustained levels of investment on education, health etc.

Table 3.3: Projected Population Profile of Tamil Nadu: 2001 to 2011

| Details | 2001 | 2006 | 2011 |
|---------------------------|-------|-------|-------|
| Total population | 624.1 | 651.4 | 674.4 |
| Male | 314.0 | 327.3 | 338.5 |
| Female | 310.1 | 324.1 | 335.9 |
| 0-14 age group | 168.3 | 159.6 | 152.4 |
| 15-59 age group | 399.4 | 426.8 | 446.2 |
| 60+ population | 56.4 | 65.0 | 75.8 |
| Dependency Rate Per '000' | 562.0 | 526.0 | 511.0 |

Source: Census of India (2001), Report on Population Projections for India and States 2001-26.

a. Total Fertility Rate

Table 3.4 provides the details of total fertility rate (TFR) in Tamil Nadu and India from 1997 to 2007. During this period, TFR of Tamil Nadu, which was lower than India's TFR in all years, was continuously declining. If the same trend continues, the TFR in Tamil Nadu will likely to be 1.43 in 2012 as against the (revised) target of 1.4 in that year.

Table 3.4: Total Fertility Rate in Tamil Nadu and India

| Details | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------|------|------|------|------|------|------|------|------|------|------|------|
| Tamil Nadu | 2 | 2 | 2 | 2.1 | 2 | 2.1 | 1.9 | 1.8 | 1.7 | 1.7 | 1.6 |
| India | 3.3 | 3.2 | 3.2 | 3.2 | 3.1 | 3 | 3 | 2.9 | 2.9 | 2.8 | n.a. |

Source: Family Welfare Statistics in India – 2006, Ministry of Health and Family Welfare, Government of India;
n.a- not available.

b. Birth Rate, Death Rate and Infant Mortality

In 1997, the crude birth rate in Tamil Nadu was 19 per 1000 population as against the all-India figure of 27.2. It declined continuously to 15.8 in 2008. During the same period, the death rate also declined from 8 to 7.2 and IMR from 53 to 31 per 1000 live births (Table 3.5).

If reductions in birth rate and death rate continue at the current rates, they are likely to reach 14.8 and 6.9 respectively in 2012. Thus, the state is well on-track in reducing birth rate by end of 11th Plan. However, the death rate in 2012 is likely to be slightly larger than the target rate of 6 percent. The IMR is likely to be 25.5 in 2012 as against the target of 18. Thus, Tamil Nadu is not likely to meet its target rate of IMR.

The under-five mortality rate (U5MR) (per 1000 live births) in Tamil Nadu was 86.5 in 1992-93 (as against the national figure of 109.3) and this declined to 63.3 in 1998-99 (not shown). Since the infant death constitutes about two-thirds of under-five mortalities, more policy attention is required to reduce infant death rate.

The Ministry of Health and Family Welfare is implementing several programmes and schemes to address the issues of high infant and child mortality. Some of the major child health intervention includes Universal Immunization Programme, where immunization is carried out against six vaccine preventable diseases, control of deaths due to acute respiratory infections and diarrhea diseases and provision of essential newborn care to address the issue of neonates. These schemes would help all states including Tamil Nadu to improve child immunization, thereby reducing infant deaths.

Table 3.5: Birth Rate, Death Rate and Infant Mortality Rate in Tamil Nadu

| Year | Birth Rate | | | Death Rate | | | Infant Mortality Rate | | |
|-------------------|------------|-------|-------|------------|-------|-------|-----------------------|-------|-------|
| | Total | Rural | Urban | Total | Rural | Urban | Total | Rural | Urban |
| Tamil Nadu | | | | | | | | | |
| 1997 | 19 | 19.3 | 18.3 | 8 | 8.7 | 6.7 | 53 | 58 | 40 |
| 1998 | 19.2 | 19.7 | 18.1 | 8.5 | 9.3 | 6.8 | 53 | 59 | 40 |
| 1999 | 19.3 | 19.8 | 18.2 | 8 | 8.7 | 6.6 | 52 | 58 | 39 |
| 2000 | 19.2 | 19.9 | 18 | 7.9 | 8.6 | 6.4 | 51 | 56 | 38 |
| 2001 | 19 | 19.6 | 17.8 | 7.6 | 8.4 | 6 | 49 | 55 | 35 |
| 2002 | 18.5 | 19.1 | 17.5 | 7.7 | 8.6 | 5.9 | 44 | 50 | 32 |
| 2003 | 18.3 | 18.8 | 17.3 | 7.6 | 8.5 | 5.6 | 43 | 48 | 31 |
| 2004 | 17.1 | 17.8 | 16.2 | 7.5 | 8.1 | 6.7 | 41 | 45 | 35 |
| 2005 | 16.5 | 16.9 | 16 | 7.4 | 8.2 | 6.2 | 37 | 39 | 34 |
| 2006 | 16.2 | 16.5 | 15.9 | 7.5 | 8.3 | 6.4 | 37 | 39 | 33 |
| 2007 | 15.8 | 16 | 15.5 | 7.2 | 8 | 6.3 | 35 | 38 | 31 |
| 2008 | 15.8 | 16 | 15.5 | 7.2 | 8 | 6.3 | 31 | 34 | 28 |
| All India | | | | | | | | | |
| 1997 | 27.2 | 28.9 | 21.5 | 8.9 | 9.6 | 6.5 | 71 | 77 | 45 |
| 2002 | 25 | 26.6 | 20 | 8.1 | 8.7 | 6.1 | 63 | 69 | 40 |
| 2007 | 23.1 | 24.7 | 18.6 | 7.4 | 8 | 6 | 55 | 61 | 37 |
| 2008 | 22.8 | 24.4 | 18.5 | 7.4 | 8 | 5.9 | 53 | 58 | 36 |

Source: SRS bulletin (various years), Office of the Registrar General, India, Ministry of Home Affairs.

According to the National Family Health Survey (NFHS) reports, the proportion of children 12-23 months fully immunized (BCG, measles, and 3 doses each of polio/DPT) in Tamil Nadu (India) increased from 65.1 (35.5) percent in 1992-93 to 80.8 (43.5) percent in 2005-06 (Table 3.6). This means that 20 percent of children in Tamil Nadu are not fully immunized. However, the proportion of children 12-23 months received at least measles increased to 92.4 per cent in 2005-06 (not shown).

Table 3.6: Health Indicators of Children

| States | Under Weight Children (0-3 Yrs.) | | | Anemic Children (6-35 Months Old) | | Children (12-23 Months) Fully Immunized | | |
|-------------------|-------------------------------------|-------------|-------------|---|-------------|--|-------------|-------------|
| | 1992-93 | 1998-99 | 2005-06 | 1998-99 | 2005-06 | 1992-93 | 1998-99 | 2005-06 |
| Andhra Pradesh | 45 | 37.7 | 36.5 | 72.3 | 79 | 45.4 | 58.7 | 46 |
| Assam | 49.2 | 36 | 40.4 | 63.2 | 76.7 | 19.4 | 17 | 31.6 |
| Bihar | n.a | 54.3 | 58.4 | 81.1 | 87.6 | n.a | 11.6 | 32.8 |
| Jharkhand | n.a | 54.3 | 59.2 | 82.4 | 77.7 | n.a | 8.8 | 34.5 |
| Gujarat | 48.1 | 45.1 | 47.4 | 74.5 | 80.1 | 50.3 | 53 | 45.2 |
| Haryana | 36.6 | 34.6 | 41.9 | 83.9 | 82.5 | 53.5 | 62.7 | 65.3 |
| Karnataka | 50.6 | 43.9 | 41.1 | 70.6 | 82.7 | 52.2 | 60 | 55 |
| Kerala | 27 | 26.9 | 28.8 | 43.9 | 55.7 | 54.4 | 79.7 | 75.3 |
| Madhya Pradesh | n.a | 53.5 | 60.3 | 71.3 | 82.6 | n.a | 22.6 | 40.3 |
| Chhattisgarh | n.a | 60.8 | 52.1 | 87.7 | 81 | n.a | 21.8 | 48.7 |
| Maharashtra | 51.4 | 49.6 | 39.7 | 76 | 71.9 | 64.3 | 78.4 | 58.8 |
| Orissa | 52.4 | 54.4 | 44 | 72.3 | 74.2 | 36.1 | 43.7 | 51.8 |
| Punjab | 46 | 28.7 | 27 | 80 | 80.2 | 61.9 | 72.1 | 60.1 |
| Rajasthan | 44.3 | 50.6 | 44 | 82.3 | 79.6 | 21.1 | 17.3 | 26.5 |
| Tamil Nadu | 45.7 | 36.7 | 33.2 | 69 | 72.5 | 65.1 | 88.8 | 80.8 |
| Uttar Pradesh | n.a | 51.8 | 47.3 | 73.8 | 85.1 | n.a | 20.2 | 22.9 |
| Uttarakhand | n.a | 41.8 | 38 | 77.4 | 61.5 | n.a | 40.9 | 60 |
| West Bengal | 54.8 | 48.7 | 43.5 | 78.3 | 69.4 | 34.2 | 43.8 | 64.3 |
| India | 51.5 | 47 | 45.9 | 74.2 | 79.2 | 35.5 | 42 | 43.5 |

Source: National Family Health Survey I, II and III; n.a- not available.

Table 3.7 shows the immunization performance in Tamil Nadu in 2007-08 and 2008-09 in respect of vaccine drugs-TTM, DPT, Polio, BCG and measles. The state is well on track in meeting its targets.

3.4 Child Malnutrition

Low birth weight and under nutrition are the major risk factors of infant and child mortality. According to National Family Health Survey, the proportion of children (0-3

years) who are underweight in Tamil Nadu was 36.3 percent in 1998-99 and 33.3 percent in 2005-06. The Government's target is to reduce the child (0-3) malnutrition to 16.6 percent in 2012. The projection indicates that state is likely to reduce child malnutrition to 30 by 2012. Further, available evidences indicate that as on March 2008 under General ICDS, of 24 lakh children weighted, about 61 percent of them were normal weighted (Table 3.8).

Table 3.7: Immunization Performance in Tamil Nadu

(lakhs)

| Vaccine Drugs | 2007-08 | | | 2008-09 | | |
|---------------|---------|---------|-----|---------|---------|----|
| | Target | Achieve | % | Target | Achieve | % |
| TTM | 12.49 | 12.47 | 100 | 12.36 | 12.17 | 98 |
| DPT | 11.36 | 11.45 | 101 | 11.24 | 11.05 | 98 |
| Polio | 11.36 | 11.44 | 101 | 11.24 | 11.06 | 96 |
| BCG | 11.36 | 11.41 | 100 | 11.24 | 11.02 | 98 |
| Measles | 11.35 | 11.37 | 100 | 11.24 | 10.58 | 94 |

Source: Director of Public Health and Preventive Medicine, Chennai-6.

The state government has taken various steps to eradicate severe malnutrition. A policy statement on Malnutrition Free Tamil Nadu was released in 2002. As part of the action plan, severely malnourished children (6-24 months) are given additional weaning food of 50 kms once in a week on take-home-ration basis. 2 grams of drumstick leaf powder/curry leaf powder in the nutritious meal at a cost of 20 paise per child per day for 5 days a week has been included in addition to the vegetables already provided in the nutrition meal.

The Government also targets the major deficiency disease-anaemia as the state has an abnormally high prevalence of anaemia in children. According to National Family Health Survey (2005-06), about 73 percent (80 percent) of children (6 – 35 months) are anemic in Tamil Nadu (India) [see Table 3.6]. From 2007-08 onwards, the Government had provided one boiled egg per week to all the integrated child development service (ICDS) centers for the children aged 1-2 years and 3 eggs to children aged 2-15 under Nutrition Noon Meal programme.

Table 3.8: Nutritional Status of Children (0-36 months)

(General ICDS as on March 2008)

| Districts | Weighted | Normal | Grade I | Grade II | Grade III & IV |
|-------------------|-----------------|----------------|----------------|-----------------|---------------------------|
| Chennai | 74582 | 51612 | 22326 | 634 | 10 |
| Kancheepuram | 94561 | 56432 | 36142 | 1944 | 43 |
| Thiruvallur | 95324 | 59788 | 34926 | 597 | 13 |
| Cuddalore | 101894 | 62957 | 36723 | 2207 | 7 |
| Villupuram | 153893 | 77488 | 70749 | 5632 | 24 |
| Vellore | 139854 | 83074 | 54019 | 2638 | 123 |
| Thiruvannamalai | 97231 | 59017 | 35885 | 2287 | 42 |
| Salem | 138742 | 94887 | 43401 | 445 | 9 |
| Namakkal | 62609 | 43832 | 18008 | 721 | 48 |
| Dharmapuri | 63200 | 34569 | 26598 | 2008 | 25 |
| Krishnagiri | 71661 | 36325 | 31857 | 3455 | 24 |
| Erode | 89818 | 60525 | 28493 | 783 | 17 |
| Coimbatore | 120606 | 92783 | 26756 | 1037 | 30 |
| The Nilgiris | 15282 | 9889 | 5116 | 274 | 3 |
| Tiruchirappalli | 80820 | 52156 | 26461 | 2169 | 34 |
| Karur | 39085 | 23516 | 14504 | 1046 | 19 |
| Perambalur | 61924 | 35422 | 24808 | 1684 | 10 |
| Pudukkottai | 68212 | 35678 | 30495 | 1982 | 57 |
| Thanjavur | 87514 | 49178 | 34846 | 3466 | 24 |
| Nagapattinam | 67195 | 35316 | 26638 | 5157 | 84 |
| Thiruvarur | 45771 | 22913 | 19392 | 3447 | 19 |
| Madurai | 100782 | 58610 | 41042 | 1105 | 25 |
| Theni | 55189 | 37637 | 17358 | 178 | 16 |
| Dindigul | 85558 | 55169 | 29829 | 546 | 14 |
| Ramanathapuram | 53098 | 31060 | 21443 | 573 | 22 |
| Virudhunagar | 72896 | 38612 | 32304 | 1950 | 30 |
| Sivagangai | 43640 | 25766 | 17034 | 824 | 16 |
| Tirunelveli | 104674 | 63221 | 39447 | 1939 | 67 |
| Thoothukudi | 53345 | 36296 | 16377 | 647 | 25 |
| Kanyakumari | 61317 | 49380 | 11842 | 90 | 5 |
| Tamil Nadu | 2400277 | 1473108 | 874819 | 51465 | 885 |

Source: The Director, Integrated Child Development Services Scheme, Chennai 113.

3.5. Maternal Mortality Ratio

Ensuring safe motherhood is one of the biggest challenges. The goal is to reduce maternal mortality ratio (MMR) to 45 per 1 lakh live birth by 2012. The pace of decline of MMR has been slow and the state is not likely to meet this target.¹⁵

Table 3.9: Maternal Mortality Rate in Tamil Nadu

| Year | MMR |
|------|-----|
| 1998 | 79 |
| 2008 | 81 |

Source: Rajya Sabha Unstarred Question No. 1532, dated 18.03.2002 & Policy Note on Health and Family Welfare 2010-11.

The most common causes of maternal deaths are hemorrhage, anemia, puerperal sepsis, obstructed labour, and abortion, hypertensive disease of pregnancy, anemia, bad obstetric history and lack of antenatal care. According to NFHS-2 and 3, the proportion of women (15-49 years) who are anemic reduced from 56.5 percent in 1998-99 to 53.3 percent in 2005-06 in Tamil Nadu (Table 3.10). If the same reduction rate continues, there will be 50 percent of women who are anemic in 2012 as against the target of 26.7 percent in Tamil Nadu.

Another important indicator of maternal care is the number of deliveries conducted by skilled personnel. In 2005-06, skilled attendants conducted only 48 percent of deliveries in India. This not only increases the mortality rates of infants and children but also contributes to high maternal mortality in India. The corresponding figure for Tamil Nadu was 93 percent. The projection shows that 100 percent of the birth in the state will happen under the care of a skilled birth attendant by 2010.

In terms of place of delivery, in 2005-06, only 41 percent of births occurred in health institution in India. In the same year, more than 90 percent of births in Tamil Nadu occurred in health institutions. It seems that almost all births in Tamil Nadu will occur in medical institutions soon.

¹⁵ According to special bulletin on maternal mortality in 2004-06 by Sample Registration System, Office of the Registrar general, India “ MMR in Tamil Nadu was 111 in 2004-05 as against all India figure of 254 (see <http://www.mp.gov.in/health/MMR-Bulletin-April-2009.pdf>).

Table 3.10: Women Health Indicators

| States | Birth Assisted by Doctor/health Persons | | | Institutional Births | | | Women (15-49) who are Anemic | |
|-------------------|---|-------------|-------------|----------------------|-------------|-------------|------------------------------|-------------|
| | 1992-93 | 1998-99 | 2005-06 | 1992-93 | 1998-99 | 2005-06 | 1998-99 | 2005-06 |
| Andhra Pradesh | 48.9 | 65.2 | 74.2 | 34.3 | 49.8 | 68.6 | 49.8 | 62.0 |
| Assam | 18.0 | 21.4 | 31.2 | 11.7 | 17.6 | 22.7 | 69.7 | 69.0 |
| Bihar | n.a | 24.8 | 30.9 | n.a | 14.8 | 22.0 | 60.4 | 68.3 |
| Jharkhand | n.a | 17.5 | 28.7 | n.a | 13.9 | 19.2 | 72.9 | 70.4 |
| Gujarat | 43.4 | 53.5 | 64.7 | 36.8 | 46.3 | 54.6 | 46.3 | 55.5 |
| Haryana | 31.5 | 42.1 | 54.2 | 17.5 | 22.4 | 39.4 | 47.0 | 56.5 |
| Karnataka | 46.6 | 59.1 | 71.3 | 38.4 | 51.1 | 66.9 | 42.4 | 50.3 |
| Kerala | 90.2 | 94.1 | 99.7 | 88.9 | 92.9 | 99.5 | 22.7 | 32.3 |
| Madhya Pradesh | n.a | 28.9 | 37.1 | n.a | 22.0 | 29.7 | 49.3 | 57.6 |
| Chhattisgarh | n.a | 32.3 | 44.3 | n.a | 13.8 | 15.7 | 68.7 | 57.6 |
| Maharashtra | 53.1 | 59.4 | 70.7 | 44.5 | 52.6 | 66.1 | 48.5 | 49.0 |
| Orissa | 19.0 | 33.4 | 46.4 | 14.1 | 22.6 | 38.7 | 63.0 | 62.8 |
| Punjab | 47.3 | 62.6 | 68.6 | 24.8 | 37.5 | 52.5 | 41.4 | 38.4 |
| Rajasthan | 19.3 | 35.8 | 43.2 | 12.0 | 21.5 | 32.2 | 48.5 | 53.1 |
| Tamil Nadu | 69.3 | 83.7 | 93.2 | 64.3 | 79.3 | 90.4 | 56.5 | 53.3 |
| Uttar Pradesh | n.a | 21.8 | 29.2 | n.a | 15.2 | 22.0 | 49.0 | 50.8 |
| Uttarakhand | n.a | 34.6 | 41.5 | n.a | 20.6 | 36.0 | 45.6 | 47.6 |
| West Bengal | 33.9 | 44.2 | 45.7 | 32.0 | 40.1 | 43.1 | 62.7 | 63.8 |
| India | 33.0 | 42.4 | 48.3 | 26.1 | 33.6 | 40.7 | 51.8 | 56.2 |

Source: National Family Health Survey I, II and III; n.a- not available.

The Government of India has introduced the Janani Suraksha Yojana (a modification of the National Maternity Benefit Scheme), which provides comprehensive medical care during pregnancy, child birth and post natal care and thereby endeavor to improve the level of institutional deliveries and reduce maternal mortality ratio. It is interesting to note that 96.5 percent of pregnant women received at least 3 antenatal care check-up in Tamil Nadu in 2005-06. The corresponding figure for the country was only 50.7 (NFHS - 3, 2005-06).

Details of number of infant deaths and maternal deaths in various districts of Tamil Nadu in 2007 are shown in Table 3.11. Chennai recorded the highest number of infant deaths of 3023 while the Nilgiris recorded the lowest number of 71. Madurai recorded about 1100 infant deaths. In Thanjavur, Vellore, Salem, Coimbatore, Trichirapalli and Tirunelveli districts, the infant deaths were more than 500. Chennai also recorded the highest number of maternal deaths.

Table 3.11: District Wise Infant Deaths, Still Births and Maternal Deaths in 2007
(in numbers)

| Districts | Infant Deaths | Still births | Maternal Deaths | Districts | Infant Deaths | Still births | Maternal Deaths |
|-------------------|---------------|--------------|-----------------|----------------|---------------|--------------|-----------------|
| Chennai | 3023 | 1570 | 59 | Karur | 170 | 170 | 1 |
| Kancheepuram | 309 | 117 | 2 | Perambalur | 155 | 152 | 1 |
| Thiruvallur | 126 | 118 | 7 | Pudukottai | 156 | 179 | 4 |
| Cuddalore | 350 | 228 | 4 | Thanjavur | 723 | 605 | 8 |
| Villupuram | 212 | 203 | 13 | Nagapattinam | 124 | 112 | 1 |
| Vellore | 691 | 754 | 8 | Thiruvarur | 95 | 199 | 2 |
| Thiruvannamalai | 141 | 223 | 4 | Madurai | 1102 | 726 | 11 |
| Salem | 574 | 205 | 9 | Theni | 267 | 133 | 4 |
| Namakkal | 206 | 214 | 5 | Dindigul | 211 | 276 | 1 |
| Dharmapuri | 233 | 331 | 7 | Ramanathapuram | 108 | 115 | 3 |
| Krishnagiri | 118 | 287 | 10 | Virudhunagar | 262 | 372 | 1 |
| Erode | 338 | 470 | 18 | Sivagangai | 40 | 122 | 1 |
| Coimbatore | 560 | 539 | 7 | Tirunelveli | 502 | 548 | 6 |
| The Nilgiris | 71 | 55 | 1 | Thoothukudi | 263 | 339 | 7 |
| Tiruchirappalli | 551 | 607 | 27 | Kanyakumari | 271 | 169 | 3 |
| Tamil Nadu | | | | | 9824 | 10138 | 235 |

Source: Director of Public Health and Preventive Medicine (Civil Registration System), Chennai-6.

3.6. Life Expectancy

The male (female) life expectancy was 64.1 (66.1) years in 1997-2001 in Tamil Nadu. The male expectancy increased to only 65 years and female expectancy to 67.4 in 2002-06 (Table 3.12). If the same trend continues the male expectancy and female expectancy will likely to be 66.1 years and 69 years respectively in 2012. However, the target figures are 69 and 72 years.

Table 3.13 provides district wise life expectancy at birth in Tamil Nadu in 2006 as computed by the State Planning Commission (2007). It also provides the index of deficiency. Chennai obtained the highest life expectancy of 84.8 years while Theni the lowest of 69.3 years. For the state, it was 72.8 years. The index of deficiency ranges between 0-21.3.

Table 3.12: Life Expectancy at Birth

| Year | Tamil Nadu | | India | |
|-----------|------------|--------|-------|--------|
| | Male | Female | Male | Female |
| 1996-2000 | 63.9 | 65.9 | 61.0 | 62.7 |
| 1997-2001 | 64.1 | 66.1 | 61.3 | 63.0 |
| 2001-2005 | 64.8 | 67.1 | 62.3 | 63.9 |
| 2002-2006 | 65.0 | 67.4 | 62.6 | 64.2 |

Source: SRS Based Abridged Life Table, Sample Registration System, Office of the Registrar General, India (various years).

Table 3.13: District wise Life Expectancy and Index of Deficiency in Tamil Nadu

| Districts | Life Expectancy at Birth | Index of Deficiency | Districts | Life Expectancy at Birth | Index of Deficiency |
|-------------------|--------------------------|---------------------|----------------|--------------------------|---------------------|
| Theni | 69.3 | 21.3 | Villupuram | 72.2 | 17.3 |
| Dindigul | 69.4 | 21.2 | Kanniyakumari | 72.6 | 16.8 |
| Virudhunagar | 69.4 | 21.2 | Thiruvavarur | 72.7 | 16.6 |
| Ramanathapuram | 69.6 | 20.9 | Erode | 73.1 | 16.1 |
| Namakkal | 69.8 | 20.6 | The Nilgiris | 73.1 | 16.1 |
| Dharmapuri | 69.8 | 20.6 | Madurai | 73.4 | 15.7 |
| Sivagangai | 69.8 | 20.6 | Coimbatore | 73.8 | 15.1 |
| Vellore | 71.4 | 18.4 | Salem | 74.0 | 14.8 |
| Thirunelveli | 71.5 | 18.3 | Nagapattinam | 74.7 | 13.9 |
| Thiruvannamalai | 71.6 | 18.1 | Thiruvallur | 75.5 | 12.8 |
| Perambalur | 71.7 | 18.0 | Kanchipuram | 76.5 | 11.4 |
| Cuddalore | 71.8 | 17.9 | Tiruchirapalli | 76.6 | 11.3 |
| Thanjavur | 71.9 | 17.7 | Karur | 76.6 | 11.3 |
| Krishnagiri | 71.9 | 17.7 | Thoothukudi | 78.2 | 9.1 |
| Pudukkottai | 72.0 | 17.6 | Chennai | 84.8 | 0.0 |
| Tamil Nadu | 72.8 | 16.5 | | | |

Source: Government of Tamil Nadu (2007), Eleventh Five Year Plan 2007-2012, State Planning Commission;

Notes: LEB- computed using the data of VES 2006,

3.7. Status of Rural and Urban Water Supply

There are 92689 rural habitations in the state. In 2002-03, only 36.8 percent of habitations were fully covered by rural water supply and 49.06 percent covered partially. In 2008-09, 88.38 percent of habitations were fully covered by rural water supply and 11.62 percent were partially supported by the rural water supply (Table 3.14).

Table 3.14: Rural Water Supply Status: By Habitations

| Year | Total Number of Habitations | Habitations Fully Covered | | Habitations Partially Covered | |
|---------|-----------------------------|---------------------------|---------|-------------------------------|---------|
| | | Number | Percent | Number | Percent |
| 2002-03 | 81787 | 30117 | 36.82 | 40124 | 49.06 |
| 2003-04 | 81787 | 35727 | 43.68 | 36777 | 44.97 |
| 2004-05 | 81787 | 46249 | 56.55 | 32314 | 39.51 |
| 2005-06 | 81787 | 55149 | 67.43 | 25670 | 31.39 |
| 2006-07 | 86981 | 57260 | 65.83 | 29241 | 33.62 |
| 2008-09 | 92689 | 81917 | 88.38 | 10772 | 11.62 |

Source: Government of Tamil Nadu (2007), Eleventh Five Year Plan 2007-2012; State Planning Commission and Tamil Nadu- Economic Appraisal 2006-07; Statistical Handbook of Tamil Nadu 2010-11.

Of 718 urban towns (other than Chennai) in the state, 5 are corporations, 152 are municipalities and 252 are town panchayats. Depending on the availability of per capita per day water supply, they are classified as good, average, and poor. 199 municipalities and town panchayats were poor in 2002. In 2007, only 29 of them were poor. During the same period, the total number of towns having good performance increased from 290 to 382 (Table 3.15).

Table 3.15: Status of Urban Water Supply

| Civic Status | Good | | Average | | Poor | | Total | |
|-----------------|------|------|---------|------|------|------|-------|------|
| | 2002 | 2007 | 2002 | 2007 | 2002 | 2007 | 2002 | 2007 |
| Corporations | - | 1 | 5 | 4 | - | - | 5 | 5 |
| Municipalities | 38 | 52 | 34 | 90 | 30 | 10 | 102 | 152 |
| Town Panchayats | 253 | 329 | 190 | 213 | 169 | 19 | 611 | 561 |
| Total | 290 | 382 | 229 | 307 | 199 | 29 | 718 | 718 |

Source: Government of Tamil Nadu (2007), Eleventh Five Year Plan 2007-2012, State Planning Commission;
 Note: For Corporation, Good means above 110 litre per capita per day (lpcd), Average: 70 – 110 lpcd, Poor: less than 70 lpcd; For Municipality, Good: 90 lpcd, Average: 50-89 lpcd, Poor: less than 50 lpcd; For Town Panchayats, Good: 70 lpcd, Average: 40 – 69 lpcd, Poor: less than 40 lpcd.

Table 3.16 indicates availability of safe drinking water and percent of households connected with electricity. The availability of safe drinking water is lowest in Ramanathapuram, Kanniyakumari, Thiruvallur and the Nilgiris. Percent of households with least connectivity of electricity show that districts like Thiruvallur, Nagapattinam, Pudukkottai, and Ariyalur are the districts requiring the highest attention.

Table 3.16: Index of Districts with Safe Drinking Water and Electricity Connection

| Districts | % Households using Safe Drinking Water | | Districts | % Households Connected with Electricity | |
|-----------------|--|-------------|-----------------|---|-------------|
| | % Households using Safe Drinking Water | Index Value | | % Households Electrified | Index Value |
| Ramanathapuram | 52.2 | 0.500 | Thiruvarur | 64.8 | 0.639 |
| Kanniyakumari | 56.2 | 0.541 | Nagapattinam | 64.9 | 0.640 |
| Thiruvallur | 70.4 | 0.691 | Pudukkottai | 65.0 | 0.641 |
| The Nilgiris | 74.4 | 0.733 | Ariyalur | 65.7 | 0.649 |
| Sivagangai | 75.6 | 0.746 | Ramanathapuram | 66.1 | 0.652 |
| Pudukkottai | 78.7 | 0.778 | Dindigul | 69.1 | 0.683 |
| Dharmapuri | 79.7 | 0.712 | Dharmapuri | 71.5 | 0.708 |
| Namakkal | 80.6 | 0.798 | Sivagangai | 71.8 | 0.711 |
| Kancheepuram | 81.2 | 0.804 | Thanjavur | 71.9 | 0.712 |
| Salem | 82.1 | 0.813 | The Nilgiris | 73.0 | 0.723 |
| Erode | 84.5 | 0.839 | Theni | 74.4 | 0.738 |
| Chennai | 85.6 | 0.851 | Karur | 74.5 | 0.740 |
| Thoothukudi | 86.5 | 0.860 | Thiruvannamalai | 75.7 | 0.751 |
| Perambalur | 86.6 | 0.862 | Villupuram | 76.6 | 0.761 |
| Vellore | 86.9 | 0.864 | Cuddalore | 76.8 | 0.762 |
| Ariyalur | 87.8 | 0.874 | Tiruchirapalli | 77.2 | 0.767 |
| Thiruvannamalai | 87.9 | 0.875 | Kanniyakumari | 77.3 | 0.768 |
| Villupuram | 88.4 | 0.880 | Erode | 77.3 | 0.768 |
| Dindigul | 90.2 | 0.899 | Perambalur | 78.4 | 0.779 |
| Nagapattinam | 91.6 | 0.914 | Vellore | 78.6 | 0.781 |
| Thirunelveli | 91.6 | 0.913 | Salem | 79.4 | 0.790 |
| Karur | 92.1 | 0.919 | Namakkal | 79.7 | 0.793 |
| Virudhunagar | 92.1 | 0.919 | Madurai | 79.9 | 0.795 |
| Coimbatore | 92.2 | 0.920 | Virudhunagar | 80.3 | 0.799 |
| Tiruchirapalli | 93.3 | 0.931 | Thoothukudi | 81.6 | 0.813 |
| Madurai | 93.9 | 0.937 | Thirunelveli | 83.6 | 0.833 |
| Cuddalore | 94.4 | 0.943 | Coimbatore | 84.4 | 0.842 |
| Thanjavur | 94.6 | 0.945 | Kancheepuram | 85.7 | 0.855 |
| Theni | 96.0 | 0.959 | Thiruvallur | 87.2 | 0.871 |
| Thiruvarur | 96.4 | 0.964 | Chennai | 94.0 | 0.941 |

Source: International Institute of Population Sciences (2005). Note: Districts are based on 2001 Census.

3.8. State's Recent Efforts in Improving Health and Nutrition

According to the policy note on Health and Family Welfare (2010-11), the followings are the recent initiatives by the state government in improving the health and nutrition status in Tamil Nadu:

- (i) 12.5 percent of 10.47 lakh total births in 2008 are higher order births in Tamil Nadu. To reach the goals fixed for 2012, state gives priority to reduce these higher order births in a phased manner.
- (ii) Of the 31 infant deaths in the state (in 2008), nearly 75 percent are neo – natal deaths. To reach the target level of 18 IMR per 1000 live births, the state has taken efforts to reduce neo – natal deaths.
- (iii) As per National Family Health Survey – III (2005-06), 53.3 percent of mothers and 2.5 percent of infants are affected by any one form of anaemia in Tamil Nadu. Anaemia is the main indirect cause for the maternal deaths and neo-natal deaths. Area specific approach will be adopted to identify village wise eligible mothers with three and above children and motivate them by a block level team to accept Family Welfare Sterilization.
- (iv) Chief Minister Kalaingar Insurance Scheme for life saving treatment has been implemented from July 2009. So far 1.44 crore families have been enrolled as members under the scheme. The Scheme has benefited 71,942 persons, who have undergone major surgeries.
- (v) The prevention and control of maternal anaemia is a serious concern for the state. Treatment guidelines (protocols) for implementation of moderate and severe anaemia control programme have been introduced during the year 2009-2010 to tackle this problem. This includes deworming for all pregnant women and use iron sucrose for cases of severe anaemia.
- (vi) Under Varumun Kappom Thittam, 14594 camps have been conducted to diagnose diseases at incipient stage. The total beneficiaries are 141.07 lakhs. Those who are identified for further treatment/ surgery for 51 diseases are treated in the empanelled hospitals under Kalaingar Insurance Scheme.

- (vii) Dr. Muthulakshmi Reddy Maternity Benefit Scheme has been implemented from 2006. Under this scheme, cash assistance of Rs.6000 is given to the pregnant women of below poverty line to compensate the wage loss during pregnancy and to take nutritional food to avoid low birth weight babies. So far 19.53 lakh pregnant women are benefited.
- (viii) The Government launched the Young Children Heart Protection Scheme in December 2007 and a special programme of screening of School Children for Heart Disease was launched in June 2008. 9986 School Children were identified with heart problems and 1948 school children were found fit for heart surgery. So far 3290 young children and School Children have undergone heart surgery in 28 accredited private hospitals.
- (ix) Every year about about 1.4 lakh persons develop Tuberculosis in the state. Of this, 48000 have TB Bacilli in their sputum. There are 8 TB Hospitals in Tamil Nadu and 3091 beds in the State exclusively for in-patient treatment of acutely ill-patients. The Revised National TB Control Programme (RNTCP) is implemented in the Districts through 142 TB Units (one for every 5 lakh population), 782 Microscopic centres (one for every one lakh population) and about 11, 000 DOT Centres. The RNTCP Programme also has a good partnership with NGOs, Private Hospitals and Private Doctors, Railways, Port Trust and Military Hospitals. The Programme has examined 5.5 lakh persons and diagnosed about 83,199 TB patients during the year 2009-10. Of them 32,648 persons are new sputum positive patients and 85 percent of the patients are cured in 2009-2010. It has achieved all the parameters and targets fixed by union Government.
- (x) School Health Programme: To protect health of the school children and to prevent illness, this program declares all 'Thursdays' as School Health Days. Students in need of higher medical treatment are referred to higher medical institutions and 'Saturdays' as Referral days. Two teachers from each school are given training in identifying common illness of students. 87.47 lakh School students in 39,631 Schools were examined during 2009-10.

3.9 Summary

Although Tamil Nadu compares well with country's average performance in respect of many health indicators like fertility rate, infant mortality rate, maternal mortality ratio, child nutrition, life expectancy etc., Tamil Nadu is not likely to meet the targets of

many of these indicators during the Eleventh Plan. The following Table 3.17 provides a summary of performances of health sector in Tamil Nadu.

Table 3.17 Health Related Eleventh Plan Targets and Performance

| Indicators | 11th Plan Target | Likely Value in 2012 | Remarks |
|--------------------------|-------------------------|-----------------------------|----------------|
| Total Fertility Rate | 1.4 | 1.43 | Off-track |
| Crude Birth Rate | 15 | 14.8 | On-track |
| Crude Death Rate | 6 | 6.9 | Off-track |
| Infant Mortality Rate | 20 | 25.5 | Off-track |
| Maternal Mortality Rate | 45 | 81.8 | Off-track |
| Sex Ratio | 950 | 992 | On-track |
| Child (0-3) Malnourished | 16.6% | 30% | Off-track |
| Women who are anemic | 26.7% | 50% | Off-track |
| Male Life Expectancy | 69 | 66 | Off-track |
| Female Life Expectancy | 72 | 70 | Off-track |

Source: author's calculations.

There are considerable inter-district differences in Tamil Nadu in respect of some of these indicators.

- (a) For life expectancy five most deficient districts are: Theni, Dindigul, Virudhunagar, Ramanathapuram, and Namakkal, Erode.
- (b) In terms of human development index, the five poorest districts are: Dharmapuri, Krishnagiri, Villupuram, Perambalur, and Sivagangai.
- (c) Chennai recorded the highest number of infant deaths of 3023, followed by Madurai. In Thanjavur, Vellore, Salem, Coimbatore, Trichirapalli and Tirunelveli districts, the infant deaths were more than 500.
- (d) In Thiruvallur, Villupuram and Krishnagiri, more than 50 of children (0-3 years) are malnourished.
- (e) For provision of safe drinking water, the neediest districts are: Ramanathapuram, Kanniyakumari, Thiruvallur, the Nilgiris and Sivagangai. Considering all districts the range of variation is from 0.5 to 0.96.
- (f) For electricity connectivity the most deficient districts are: Thiruvallur, Nagapattinam, Pudukkottai, Ariyalur, and Ramanathapuram. Considering all districts the range of variation is from 0.64 to 0.94.

Chapter 4

SUMMARY AND CONCLUSIONS

This study provides a mid-term appraisal of the Eleventh Five Year Plan of Tamil Nadu, considering the trends in the following state specific monitorable indicators identified by the Eleventh Plan: GDP growth rate, agricultural growth rate, new work opportunities, poverty ratio, drop-out rate in elementary schools, literacy rate, gender gap in literacy rate, infant mortality rate, maternal mortality ratio, total fertility rate, child malnutrition, anemia among women and girls, and sex-ratio. This chapter provides a summary of major findings of the study and concluding remarks.

4.1 Summary of Major Findings

a. Growth of Tamil Nadu Economy and Employment

Growth is one of the strongest antidotes to poverty, unemployment etc. The sectoral composition of growth is also critical. In Tamil Nadu, as in India as a whole, the structure of the economy is shifting away from agriculture. The agriculture contributes only about 10 percent of total GSDP in Tamil Nadu. Further, the growth of this sector is relatively low and highly volatile. Non-agriculture, particularly the services is the main drivers of the over all economic growth of the state. Trade, hotels and restaurants are the dominant services in Tamil Nadu followed by banking and insurance and real estates.

Although the economy grew at 8.47 percent during the 10th Plan, Tamil Nadu is not likely to meet the target of 9 percent growth during the 11th Plan as agriculture recorded a negative growth rate (due to drought) during the first two years of the plan period and other sectors too recorded decelerated growths due to global slow down.

Both gross cropped area and net sown areas have been continuously declining. Although the rice is the dominant crop accounting for about 30 percent of gross cropped area, the rice productivity is low in many rice producing districts. Low agricultural productivity along with other factors lead to low percapita income in those districts. These trends will lead to further migration of people away from agriculture to non-agriculture.

The basic challenge in the context of the changing structure of the economy and employment is to create the capacity to absorb the population migrating out of

agriculture into industry and services with proper training and skill development. At the same time, productivity in agriculture should not be allowed to fall. This will require considerable additional investment in agriculture where government will have to play a key role as the returns will not be adequate to attract large inflows of private capital into agriculture.

Growth of agriculture is vital as more than 50 percent of people still depend on agriculture. Agriculture also has its forward as well as backward linkages with other sectors of the economy. There are three sources of growth: input growth, technology growth and efficiency/productivity growth. Given that inputs like land and water are scarce and other sectors are competing for labour, inputs growth in agriculture is difficult. Since there has been no break through after green revolution, the technology growth option is remote. The only logical way out is to increase the efficiency. That is, efficient utilization of existing resources is the need of the hour.

Although Tamil Nadu's relative position in terms of competitiveness index shows considerable advantage, its market size as indicated by its share of GSDP is falling overtime.

Regarding employment opportunities, the projection indicates that the state is likely to create about 1.5 million additional jobs as against the target of 2 million.

b. Per capita Income

In terms of per Capita GSDP (2007-08), Tamil Nadu ranked seventh after Haryana, Maharashtra, Gujarat, Kerala, Himachal Pradesh and Punjab. The inter district distribution of income is very skewed. Among 30 districts in Tamil Nadu (2006-07), Virudhunagar, Coimbatore and Kanniyakumari are the top three districts in per capita income. Perambalur, Vilupuram and Tiruvannamalai districts are the poorest. Most of the poorest districts are the major rice producers of the state with below the average rice productivity of the state. Although Tamil Nadu has the highest credit deposit (CD) ratio among the states in the country, the CD ratio is low in many poorer districts. Further, there is a close association between low income and poor human development performance. For example, poorer districts Villupuram, Thiruvannamalai, Perambalur, Sivagangai, Pudukkottai, and Ramanathapuram have poor human development index values.

c. Trends in Poverty Reduction

Tamil Nadu has done comparatively better than most other states in reducing the combined poverty. The overall head count ratio at 22.5 in 2004-05 is nearly 5 percentage points below the all-India figure at 27.5. Despite the progress achieved in reducing income poverty, hunger poverty/calorie deficiency remains a major problem in Tamil Nadu. The Government has taken various steps to combat poverty: (i) it has waived off cooperative farm loans of Rs. 7000 crore and the entire interest on cooperative crop loans to farmers who repay their crop loans on time, (ii) it provides 50 percent insurance premium subsidy under the crop insurance scheme in order to compensate farmers affected by natural calamities, and (iii) it provides rice at one rupee per kg under PDS (since 2008) and essential food items like toor dhal, urad dhal, and palm oil at subsidized prices through fair price shops, and ten cooking condiments for Rs. 50.

Our projections indicate that Tamil Nadu is well on track to cut poverty.

d. Performance of Education

- (i) Government expenditure on general education declined continuously from 1999-00 to 2 percent of GSDP in 2005-06 and then it started increasing and reached 2.6 percent in 2009-10. The allocation for school education as proportion of GSDP stood around 1.63-2.65 percent since the beginning of 9th Plan.
- (ii) Tamil Nadu has obtained third rank in terms of overall and female literacy (2001), sixth rank in terms of GER (2006-07) at primary level and first in GER (middle stage). It also ranks fifth in terms of composite index for elementary education, third and tenth in terms of EDI for primary and upper primary respectively.
- (iii) The literacy (female literacy) in Tamil Nadu is likely to be 87.5 (83.1) percent which is slightly lower than the target rate of 90 percent in 2012. However, the gender gap in the literacy will reduce to 10 percent level at the end of the 11th plan.
- (iv) Drop-out rate at primary level is 1.02 and at upper primary level is 1.88. The state is likely to meet the target of zero level at the elementary level. However, at high school level, the drop-out rate has reduced only marginally. This is still a major concern for the state. The major challenge before secondary education is that of meeting the surge in demand due to success of SSA.

- (v) Inter district differences still exist in literacy, female literacy etc. For instances, Kanniyakumari district achieved the highest literacy of 88.1 percent while Dharmapuri obtained the lowest rate of 59.2 percent. In 12 districts, the gender gap was more than 20 percent.
- (vi) Chennai, Madurai and Ramanathapuram districts have more than 50 percent of their schools with B and C grades. About more than 40 percent of schools in Cuddalore, Erode, Kancheepuram, Kanyakumari, Pudukkottai, and Trichirappalli have either B or C Grades. They need to improve.

e. Performance of Health Sector

- (i) Government expenditure on health and family welfare as percent of GSDP declined continuously up to end of 10th Plan and then it started increasing. But it is still lower than its level at the beginning of 9th Plan. However, expenditure on social security welfare and nutrition in Tamil Nadu relative to GSDP has been continuously increasing from the beginning of 10th Plan period.
- (ii) Female population accounted for 49.7 percent. The sex ratio in Tamil Nadu seems to exceed the target of 950 by the year 2012.
- (iii) While the state is well on-track in reducing birth rate by end of 11th Plan, its death rate in 2012 will be slightly larger than the target rate of 6 percent. The IMR is likely to be 25.5 in 2012 as against the target of 18. Further, it is very unlikely that the state will meet the MMR target.
- (iv) The target rate of child (0-3) malnutrition is 16.6 percent in 2012. But the state's child malnutrition is likely to be 30. Projections indicate that 50 percent of women will be anemic in 2012 as against the target of 26.7 percent in Tamil Nadu.
- (v) Regarding male life expectancy and female expectancy, the projected values are likely to be 66 years and 70 years respectively in 2012 as against the respective target of 69 years and 72 years.
- (vi) There are considerable inter-district differences in Tamil Nadu in respect of some of the health indicators. For life expectancy five most deficient districts are: Theni, Dindigul, Virudhunagar, Ramanathapuram, and Namakkal, Erode. In Thiruvavur, Villupuram and Krishnagiri, more than 50 of children (0-3 years) are malnourished.

For provision of safe drinking water, the neediest districts are: Ramanathapuram, Kanniyakumari, Thiruvallur, the Nilgiris and Sivagangai. For electricity connectivity the most deficient districts are: Thiruvarur, Nagapattinam, Pudukkottai, Ariyalur, and Ramanathapuram.

- (vii) The index of deficiency values for literacy, life expectancy, percapita income, enrolment etc. indicate that while Government has been successful in spreading education, health services more evenly across districts, wide differences remain in economic activities reflected by the percapita income relative to the average of the state.

4.2 Concluding Remarks

Our analyses indicate that Tamil Nadu is well on track in meeting the Eleventh Plan targets relating to poverty and education. The state may find it difficult to meet its growth targets because of fall in the overall GSDP during the first two years of the plan period. Since the agriculture recorded a negative growth during the initial years of the plan, more policy attention on this sector is required. Increasing the productivity/efficiency is the possible option for the state to increase the growth of agriculture.

Although the state has taken various measures in order to increase the performance of the health sector, our projections indicate that the state is not likely to meet its targets relating to infant mortality rate, maternal mortality rate, child malnutrition and anemia among women. However, it is noted that target rates relating to many indicators including the infant mortality and total fertility rate set by the state are higher than respective national target rates. Viewed in this way, the state is likely to meet the target relating to infant mortality rate and total fertility rate by end of the Plan period. Therefore, malnutrition among children and women is the major area of concern.

However, the government has already taken various steps to eradicate severe malnutrition. The severely malnourished children (6-24 months) are given additional weaning food of 50 kms once in a week on take-home-ration basis. 2 grams of drumstick leaf powder/curry leaf powder in the nutritious meal for 5 days a week has been included in addition to the vegetables already provided in the nutrition meal. From 2007-08 onwards, it has been providing one boiled egg per week to all the integrated child development service (ICDS) centers for the children aged 1-2 years and 3 eggs to children aged 2-15 under Nutrition Noon Meal programme.

REFERENCES

- Bhalla, Surjit S. (2005), "Raising the Standard: The War on Global Poverty", a revised version of a paper presented at The Initiative for Policy Dialogue and Rockefeller Foundation Global Poverty Workshop, March 31- April, 2003.
- Chen Shaohua and Martin Ravallion (2008), *The Developing World Is Poorer Than We Thought, But No Less Successful in the Fight against Poverty*, World Bank Policy Research Working Paper, No. WPS4703, Washington, D.C.
- Deaton, Angus and Jean Dreze (2002), "Poverty and Inequality in India: A Re-Examination", *Economic and Political Weekly*, September 7, pp. 3729-3748.
- DISE (2009), *District Information for Education* (website), various reports (<http://www.dise.in/dise.html>).
- EPW Research Foundation (2009), "Domestic Products of States of India: 1960-61 to 2006-07", (CD).
- Ghosh, Buddhadeb and Prabir De (2000), "Linkage between Infrastructure and Income Among Indian States: A Tale of Rising Disparity Since Independence", *Indian Journal of Agricultural of Applied Economics*, Vol. 8, part IV, pp. 391-431.
- Government of India, *National Family Health Survey* (1992-93, 1998-99, 2005-06), Ministry of Health, New Delhi (<http://www.nfhsindia.org/>).
- Government of India (2001), *Census of India*, Registrar General and Census Commission of India (<http://www.censusindia.net/>).
- Government of India (2001), Press Information Bureau, *Poverty Estimate* Press Releases, February 2001 and March 11, 1997.
- Government of India (2006), "Famil Welfare Statistics in India", Ministry of Health and Family Welfare (<http://mohfw.nic.in/dofw%20website/FWSII%20-%202006/BOOK.htm>)

- Government of India (2006), *Report on Population Projections for India and States 2001-26* (http://nrhm-mis.nic.in/UI/Public%20Periodic/Population_Projection_Report_2006.pdf)
- Government of India (2007), "National Food Security Mission: Operational Guidelines" Ministry of Agriculture, August 2007.
(<http://www.indg.in/agriculture/rural-employment-schemes>).
- Government of India (2010), *Economic Survey*, various years, Ministry of Finance, New Delhi (<http://indiabudget.nic.in/es2009-10/esmain.htm>).
- Government of India, *State Domestic Product* (State Series), CSO; (http://www.mospi.gov.in/mospi_cso_rept_pubn.htm)
- Government of India, *SRS Bulletin* (various issues), Office of the Registrar General, Ministry of Home Affairs (<http://nrhm-mis.nic.in/PublicPeriodicReports.aspx>)
- Government of Tamil Nadu (2003), "Tamil Nadu Human Development Report" (http://hdr.undp.org/en/reports/nationalreports/asiathepacific/india/TN_NHDR_2003.pdf)
- Government of Tamil Nadu (2006-07 & 2007-08), *Tamil Nadu –an Economic Appraisal*, Department of Evaluation and Applied Research, (<http://www.tn.gov.in/dear/index.htm>)
- Government of Tamil Nadu (2009), *Policy Note: Agriculture Department (2009-10)*, (<http://www.tn.gov.in/policynotes/agriculture.htm>)
- Government of Tamil Nadu (2010), *Statistical Hand Book 2010*, Department of Economics and Statistics (for various other years), (<http://www.tn.gov.in/deptst/>).
- Government of Tamil Nadu (2010), *Policy Note: 2010-11, Micro, Small and Medium Enterprises Department*, (http://www.tn.gov.in/policynotes/pdf/micro_small_industries.pdf).
- Government of Tamil Nadu (2010), *Policy Note: Higher Education (2010-11)*, (http://www.tn.gov.in/policynotes/pdf/higher_education.pdf).

Government of Tamil Nadu (2010), *Schemes : Centrally Sponsored Schemes : Swarna Jayanti Gram Swarozgar Yojana (SGSY)*, Rural Development and Panjayat Raj Department, (<http://www.tnrd.gov.in/schemes/sgsy.html>)

Government of Tamil Nadu, *Budget Documents*, various years.

International Institute of Population Studies (2006), *Ranking and Mapping of Districts Based on Socio-economic and Demographic Indicators*, Bombay. Sponsored by Government of India, Ministry of Health and Family Welfare, New Delhi.

NSS (1997), *Employment and Unemployment in India (1993-94), Fifth Quinquennial Survey, Fiftieth Round (July 1993-June 1994)*, March, The National Sample Survey Organisation, Government of India.

NSS (2001), *Employment and Unemployment Situation in India: 1999-2000 (Part I)*, Report No. 458, Dept. of Statistics, Government of India, New Delhi.

NSS (2001-02), *An Integrated Summary of Employment and Unemployment Survey Results: NSS Fifty-Fifth Round (July 1999-June 2000)*, Sarvekshana, Vol. XXV, No. 2&3, 87th Issue, October-March, The National Sample Survey Organisation, Government of India.

NSS (2005), *Employment and Unemployment Situation in India, NSS 60th Round (January-June 2004)*, November, Report No. 506 (60/10/1), The National Sample Survey Organisation, Government of India.

Planning Commission (2002), *National Human Development Report 2001*, March.

Planning Commission (2008), "Eleventh Five Year Plan, 2007-12", Government of India, Vol. I, II and III (<http://www.planningcommission.gov.in/plans/planrel/fiveyr/welcome.html>).

Srivastava, D.K., K.R. Shanmugam and C. Bhujanga Rao (2008), "MDGs-based Poverty Reduction Strategy for Tamil Nadu", Research Report submitted to Indira Gandhi Insitute for Dedvelopment Research and UNDP.

SSA (2010-11), *Annual Work Plan and Budget: Chapter 3, "Quality Initiatives: Issues and Strategies"* (<http://www.ssa.tn.nic.in/Docu/AWPB-3.pdf>)

State Planning Commission (2007), "Eleventh Five Year Plan: Tamil Nadu (2007-12)", Government of Tamil Nadu, (<http://www.tn.gov.in/spc/english/default.htm>).

United Nations Development Programme (2007), *Human Poverty and Socially Disadvantaged Groups in India*, Discussion Paper Series, 18, January

Appendix 1.1

Appendix 1.1 (a): Poverty Line and Poverty Ratio: Tamil Nadu and All India

| Year | Poverty Line (Current Prices) | | Poverty Line (1993-94 Prices) | | Per Day Average (1993-94 Prices) | | Per Day Average (PPP \$) | | Poverty Ratio (%) | |
|-------------------|----------------------------------|--------|----------------------------------|--------|---|-------|--------------------------------|-------|-------------------|-------|
| | Rural | Urban | Rural | Urban | Rural | Urban | Rural | Urban | Rural | Urban |
| <i>Tamil Nadu</i> | | | | | | | | | | |
| 1973-74 | 45.09 | 51.54 | 234.37 | 267.90 | 7.81 | 8.93 | 1.11 | 1.27 | 57.4 | 49.4 |
| 1977-78 | 56.62 | 67.02 | 228.98 | 271.04 | 7.63 | 9.03 | 1.09 | 1.29 | 57.7 | 48.7 |
| 1983-84 | 96.15 | 12.03 | 227.12 | 28.42 | 7.57 | 0.95 | 1.08 | 0.13 | 54.0 | 47.0 |
| 1987-88 | 118.23 | 165.80 | 207.99 | 291.68 | 6.93 | 9.72 | 0.99 | 1.38 | 45.8 | 38.6 |
| 1993-94 | 196.53 | 296.63 | 196.53 | 296.60 | 6.55 | 9.89 | 0.93 | 1.41 | 32.5 | 39.8 |
| 1999-00 | 307.64 | 475.60 | 201.12 | 310.93 | 6.70 | 10.36 | 0.95 | 1.48 | 20.6 | 22.1 |
| 2004-05 | 351.86 | 547.42 | 195.48 | 304.11 | 6.52 | 10.14 | 0.93 | 1.44 | 22.8 | 22.2 |
| <i>India</i> | | | | | | | | | | |
| 1973-74 | 49.63 | 56.76 | 257.97 | 295.03 | 8.60 | 9.83 | 1.22 | 1.40 | 56.4 | 49.0 |
| 1977-78 | 56.84 | 70.33 | 229.87 | 284.42 | 7.66 | 9.48 | 1.09 | 1.35 | 56.4 | 45.2 |
| 1983-84 | 89.50 | 115.70 | 211.42 | 273.31 | 7.05 | 9.11 | 1.00 | 1.30 | 45.7 | 40.8 |
| 1987-88 | 115.20 | 162.20 | 202.66 | 285.35 | 6.76 | 9.51 | 0.96 | 1.35 | 39.1 | 38.2 |
| 1993-94 | 205.84 | 281.40 | 205.84 | 281.40 | 6.86 | 9.38 | 0.98 | 1.34 | 37.3 | 32.4 |
| 1999-00 | 327.56 | 454.10 | 214.15 | 296.87 | 7.14 | 9.90 | 1.02 | 1.41 | 27.1 | 23.6 |
| 2004-05 | 356.30 | 538.60 | 197.94 | 299.22 | 6.60 | 9.97 | 0.94 | 1.42 | 28.3 | 25.7 |

Source: Planning Commission and Government of India, Press Information Bureau.

Appendix 1.1 (b): State wise Poverty Line (Rs.)

| States | 1973-74 | | 1977-78 | | 1983-84 | | 1987-88 | | 1993-94 | | 1999-00 | | 2004-05 | |
|--------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Rural | Urban | Rural | Urban | Rural | Urban | Rural | Urban | Rural | Urban | Rural | Urban | Rural | Urban |
| Andhra | | | | | | | | | | | | | | |
| Pradesh | 41.7 | 54.0 | 50.9 | 69.1 | 72.7 | 106.4 | 91.9 | 151.9 | 163.0 | 278.1 | 262.9 | 457.4 | 293.0 | 542.9 |
| Assam | 49.8 | 50.3 | 60.3 | 61.4 | 98.3 | 97.5 | 127.4 | 126.6 | 232.1 | 212.4 | 365.4 | 344.0 | 387.6 | 378.8 |
| Bihar | 57.7 | 61.3 | 58.9 | 67.3 | 97.5 | 111.8 | 120.4 | 150.3 | 212.2 | 238.5 | 333.1 | 379.8 | 354.4 | 435.0 |
| Jharkhand | - | - | - | - | - | - | - | - | - | - | - | - | 366.6 | 451.2 |
| Gujarat | 47.1 | 62.2 | 54.7 | 72.4 | 83.3 | 123.2 | 115.0 | 173.2 | 202.1 | 297.2 | 318.9 | 474.4 | 353.9 | 541.2 |
| Haryana | 50.0 | 52.4 | 59.4 | 66.9 | 88.6 | 103.5 | 122.9 | 143.2 | 233.8 | 258.2 | 362.8 | 420.2 | 414.8 | 504.5 |
| Karnataka | 47.2 | 58.2 | 52.0 | 68.9 | 83.3 | 120.2 | 104.5 | 171.2 | 186.6 | 302.9 | 309.6 | 511.4 | 324.2 | 599.7 |
| Kerala | 51.7 | 62.8 | 58.9 | 67.1 | 99.4 | 122.6 | 130.6 | 163.3 | 243.8 | 280.5 | 374.8 | 477.1 | 430.1 | 559.4 |
| Madhya | | | | | | | | | | | | | | |
| Pradesh | 50.2 | 63.0 | 56.3 | 74.4 | 83.6 | 122.8 | 107.0 | 178.4 | 193.1 | 317.2 | 311.3 | 481.7 | 327.8 | 570.2 |
| Chhattisgarh | - | - | - | - | - | - | - | - | - | - | - | - | 322.4 | 560.0 |
| Maharashtra | 50.5 | 59.5 | 58.1 | 74.0 | 88.2 | 126.5 | 115.6 | 189.2 | 194.9 | 328.6 | 318.6 | 539.7 | 362.3 | 665.9 |
| Orissa | 46.9 | 59.3 | 58.9 | 72.4 | 106.3 | 124.8 | 121.4 | 165.4 | 194.0 | 298.2 | 323.9 | 473.1 | 325.8 | 528.5 |
| Punjab | 50.0 | 51.9 | 59.4 | 65.7 | 88.6 | 101.0 | 122.9 | 145.0 | 233.8 | 253.6 | 362.7 | 388.2 | 410.4 | 466.2 |
| Rajasthan | 51.0 | 60.0 | 57.5 | 72.0 | 80.2 | 113.6 | 117.5 | 165.4 | 215.9 | 280.9 | 344.0 | 465.9 | 374.6 | 559.6 |
| Tamil | | | | | | | | | | | | | | |
| Nadu | 45.1 | 51.5 | 56.6 | 67.0 | 96.2 | 120.3 | 118.2 | 165.8 | 196.5 | 296.6 | 307.6 | 475.6 | 351.9 | 547.4 |
| Uttar | | | | | | | | | | | | | | |
| Pradesh | 48.9 | 57.4 | 54.2 | 69.7 | 83.9 | 110.2 | 114.6 | 154.2 | 213.0 | 258.7 | 336.9 | 416.3 | 365.8 | 483.3 |
| Uttarakhand | - | - | - | - | - | - | - | - | - | - | - | - | 478.0 | 637.7 |
| West Bengal | 54.5 | 54.8 | 63.3 | 67.5 | 105.6 | 105.9 | 129.2 | 150.0 | 220.7 | 247.5 | 350.2 | 409.2 | 382.8 | 449.3 |
| India | 49.6 | 56.8 | 56.8 | 70.3 | 89.5 | 115.7 | 115.2 | 162.2 | 205.8 | 281.4 | 327.6 | 454.1 | 356.3 | 538.6 |

Source: Planning Commission and Government of India, Press Information Bureau.

MSE Working Papers

Recent Issues

- * Working Paper 54/2010
Climate Variability and Agricultural Productivity: Case Study of Rice Yields in Northern India
Ishwarya Balasubramanian and K.S. Kavi Kumar
- * Working Paper 55/2010
Valuing the Environment in Developing Countries: Modeling the Impact of Distrust in Public Authorities' Ability to Deliver on the Citizens' Willingness to Pay for Improved Environmental Quality
Ekin Birol and Sukanya Das
- * Working Paper 56/2010
India's Low Carbon Inclusive Growth Strategy
U. Sankar
- * Working Paper 57/2011
Shifting Preferences at the Fed: Evidence from Rolling Dynamic Multipliers and Impulse Response Analysis
Matthew Greenwood-Nimmo and Yongcheol Shin
- * Working Paper 58/2011
Household Level Pollution in India: Patterns and Projections
K.S. Kavi Kumar and Brinda Viswanathan
- * Working Paper 59/2011
Dependence of States on Central Transfers: Aggregate and State-Wise Analysis
D K Srivastava and C Bhujanga Rao
- * Working Paper 60/2011
Discount Rate for Health Benefits and the Value of Life in India
K.R. Shanmugam
- * Working Paper 61/2011
Evidence on Changes in Time Varying Volatility around Bonus and Rights Issue Announcements
Madhuri Malhotra, M. Thenmozhi and Arun Kumar Gopaldaswamy (forthcoming)
- * Working Paper 62/2011
Patterns of Labour Market Insecurity in Rural India: A Multidimensional and Multivariate Approach
Padmini Desikachar and Brinda Viswanathan
- * Working Paper 63/2011
Determinants of Child Morbidity and Factors Governing Utilisation of Child Health Care: Evidence from Rural India
Anindita Chakrabarti

* Working papers are downloadable from MSE website <http://www.mse.ac.in>

\$ Restricted circulation

MSE Monographs

- * Monograph 1/2006
A Tract on Reform of Federal Fiscal Relations in India
Raja J. Chelliah
- * Monograph 2/2006
Employment and Growth
C. Rangarajan
- * Monograph 3/2006
The Importance of Being Earnest about Fiscal Responsibility
C. Rangarajan and Duvvuri Subbarao
- * Monograph 4/2007
The Reserve Bank and The State Governments: Partners in Progress
Y.V.Reddy
- * Monograph 5/2008
India's Dilemmas: The Political Economy of Policy-Making in a Globalized World
Kaushik Basu
- * Monograph 6/2010
MDGS-Based Poverty Reduction Strategy for Tamil Nadu
D.K.Srivastava, K.R. Shanmugam and C.Bhujanga Rao
- * Monograph 7/2010
Urban Poverty Alleviation Strategy: A Study of Six Cities
D.K.Srivastava, C.Bhujanga Rao, Swarna S. Vepa and Brinda Viswanathan
- * Monograph 8/2010
Review of Trends in Fiscal Transfers in India
D K Srivastava and C Bhujanga Rao
- * Monograph 9/2010
Feasibility of Incentive Based Environmental Instruments in State and Central Taxation Regimes
D.K.Srivastava and C.Bhujanga Rao
- * Monograph 10/2010
Economic Instruments for Environmental Management: International Best Practices and Applicability to India
D.K.Srivastava Dr K.S. Kavikumar , and C.Bhujanga Rao
With inputs from Dr Bodhisattva Sengupta, Dr Brijesh C. Purohit, Ms Asha Mariam Abraham, Ms Ishwarya
- * Monograph 11/2011
Taxation of Goods and Services in India
D.K.Srivastava and C.Bhujanga Rao
- * Monograph 12/2011
Coping with Pollution: Eco Taxes in a GST Regime
D.K. Srivastava, K.S. Kavi Kumar and C. Bhujanga Rao,
with inputs from Brijesh C. Purohit and Bodhisattva Sengupta
- * Monograph 13/2011
Recent Bouts of Inflation in India: Policy Paralysis?
T.N. Srinivasan
- * Monograph 14/2011
Impact of Fiscal Instruments in Environmental Management through a Simulation Model: Case Study of India
D.K. Srivastava and K.S. Kavi Kumar, with inputs from Subham Kailthya and Ishwarya Balasubramaniam
- * Monograph 15/2012
Environmental Subsidies in India: Role and Reforms
D.K. Srivastava, Rita Pandey and C. Bhujanga Rao, with inputs from Bodhisattva Sengupta
- * Monograph 16/2012
Integrating Eco-Taxes in the Goods and Services Tax Regime in India
D.K. Srivastava and K.S.Kavi Kumar