Economic Growth and Poverty Alleviation in Tamil Nadu

Notes on Selected Policy Issues
March, 2005

Poverty Reduction and Economic Management Unit
South Asia Region

The World Bank
**CURRENCY EQUIVALENTS**
Currency unit: Rupees (Rs)

\[
\begin{align*}
US\$1 & = Rs\ 45.24 \\
1\text{billion} & = 100\text{ crore}
\end{align*}
\]

**GOVERNMENT’S FISCAL YEAR**
April 1 - March 31

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### ABBREVIATIONS AND ACRONYMS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>BPL</td>
<td>Below Poverty Line</td>
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<tr>
<td>DVAC</td>
<td>Department of Vigilance &amp; Anti-Corruption</td>
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<td>FMIS</td>
<td>Tamil Nadu Farmers Management of Irrigation Systems Act</td>
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<td>GDI</td>
<td>Gender Development Index</td>
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<td>GoI</td>
<td>Government of India</td>
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<td>GoTN</td>
<td>Government of Tamil Nadu</td>
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<td>GSDP</td>
<td>Gross State Domestic Product</td>
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<td>HD</td>
<td>Human Development</td>
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<td>HDI</td>
<td>Human Development Index</td>
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<td>IPPs</td>
<td>Independent Power Producers</td>
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<td>LTU</td>
<td>Large Tax Payers Unit</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<td>M&amp;E</td>
<td>Poverty Monitoring and Evaluation</td>
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<td>MTFP</td>
<td>Medium-Term Fiscal Program</td>
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<td>NFHS</td>
<td>National Family Health Survey</td>
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<td>NMS</td>
<td>Noon Meal Scheme</td>
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<td>NSSO</td>
<td>National Sample Survey Organization</td>
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<td>O&amp;M</td>
<td>Operations and Maintenance</td>
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<td>PDS</td>
<td>Public Distribution System</td>
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<td>PSU</td>
<td>Public Sector Undertakings</td>
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<td>RASI</td>
<td>Rural Access to Services through Internet</td>
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<td>RTI</td>
<td>Right to Information</td>
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<tr>
<td>SC/ST</td>
<td>Scheduled Castes and Scheduled Tribes</td>
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<td>SERC</td>
<td>Staff and Expenditure Reforms Commission</td>
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<td>SME</td>
<td>Small and Medium Enterprises</td>
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<td>SSIR</td>
<td>Small Scale Industries Reservation</td>
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<td>STU</td>
<td>State Transport Unit</td>
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<td>TFC</td>
<td>Twelfth Finance Commission</td>
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<td>TNEB</td>
<td>Tamil Nadu Electricity Board</td>
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<td>ULB</td>
<td>Urban Local Bodies</td>
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<td>VAT</td>
<td>Value Added Tax</td>
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This volume presents a synthesis of five policy notes prepared by the World Bank staff in collaboration with the Government of Tamil Nadu to support its reform program between 2002 and 2004. The five notes span fiscal reform and sustainability, improving investment climate, agriculture development, governance challenges, and poverty profile. An overview of the main messages of the five notes is also presented. The report reflects the status of policy dialogue up to March 2004 with a few selected updates.

ACKNOWLEDGEMENT

The notes were prepared by a team led by Lili Liu and Mohan Nagarajan, under the overall guidance of Sadiq Ahmad and Michael Carter, and with advice from Ijaz Nabi and Stephen Howes. The peer reviewer is Shahid Yusuf. Major contributions to the notes are listed below. Ahmad Ahsan provided valuable comments on the report.

Fiscal Reform and Sustainability: Lili Liu, Mohan Nagarajan (co-task managers), Michael Engelschalk and Tuan Minh Le on tax policy and administration, Anand Rajaram on expenditure reform, Mohan Gopalakrishnan and Peter Dean on financial management and accountability, Elena Ianchovichina on fiscal sustainability, Yee Mun Sin on pension reform, Rajesh Sinha and Rohit Mittal on power, and Smita Kuriakose on fiscal data.

Improving Investment Climate: Lili Liu, Simon C. Bell and Abha Joshi-Ghani (task mangers), Taye Alemu Mengistae on investment climate survey and analysis, Andrew Singer on regulatory constraints, Nagavalli Annamalai on labor market reform, Michael Engelschalk and Tuan Minh Le on tax policy and administration, David Dowall on urban land market, Rajesh Sinha and Rohit Mittal on power, Arnab Bandyopadhyay on roads, Abha Joshi-Ghani on water, and Ted Liang on ports.

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Shahnaz Sultana Ahmad, Jyoti Sriram, Thelma Rutledge, and Oxana Bricha provided document preparation assistance.

The policy notes were developed in consultation with the Government of Tamil Nadu. The counterpart was led by M r. N. Narayanan, Finance Secretary and Development Commissioner. Officials in the Finance Department, Industry Department, Agriculture Department, Public Administration Department, Labor Department, Tamil Nadu Electricity Board and numerous other government departments, agencies and statutory
boards provided unstinted help during the preparation of the report. Special thanks are particularly due to Mr. L. Krishnan, Special Secretary, Finance Department, Mr. Ashish Vachhani, Deputy Secretary, Finance Department and Mr. Brajendra Navnit, Deputy Secretary (Budget) for their unstinted generosity with all manner of data and information. As always any shortcomings lie squarely with the authors.

We are also grateful to the large number of enthusiastic participants, too numerous to name, who participated in the workshop in Chennai held in October 2004. Their comments were all welcome. We are especially thankful to Professor Rajah J. Chelliah, Chairman, Madras School of Economics, Dr. V. K. Natraj, formerly, Director of the Madras Institute of Development Studies, Mr. Subhash C. Garg, Joint Secretary, Department of Expenditure, Ministry of Finance, Government of India and Mr. B. Santhanam, Saint Gobain Glass India Ltd. for their support and perceptive comments.
Tamil Nadu has emerged as the fifth largest economy in India (its population of 62 million is the seventh largest). Its GSDP is about US$38 billion at official exchange rate or over US$100 billion based on purchasing power parity. Tamil Nadu has achieved solid development outcomes, with economic growth higher, and poverty reduction faster, than the India average in the 1990s. It is one of India’s most urbanized states, with the third highest Human Development Index (HDI) among 29 states. It also has an educated, hard working and disciplined workforce, and a capable civil service.

But Tamil Nadu has an unfinished development agenda. The state has a relatively high poverty incidence of about 20% and intra-state disparities in progress toward the attainment of the Millennium Development Goals (MDGs). A fiscal crisis that peaked in 1999/00-2000/01 and slowdown in economic growth since the late 1990s threaten the prospects for sustained poverty reduction. Repeated droughts and growing water shortages heighten the importance of structural transformation that would reduce the vulnerability of the economy to periodic droughts through fluctuation in agriculture and its spillover to other sectors, and make available scarce water resources to higher value-addition industrial and service sectors. The faster growth of these two sectors would help absorb agriculture’s surplus labor and reduce high unemployment rate of the state.

Such structural transformation must be underpinned by fiscal adjustment to put public finances on a sustainable path, while at the same time reorienting public spending from consumption to growth-enhancing and poverty-reducing spending in critical infrastructure and social services. Power sector reforms to reduce the sector’s claim on fiscal resources and improve power supply is a high priority. Equally important are enabling investment climate improvement to promote private investment in manufacturing and services, policies and institutional reforms to encourage agriculture diversification to high value and less water-intensive crops, and improving governance for service delivery.

Spurred by the mounting fiscal crisis and slowing growth, the Government of Tamil Nadu (GoTN) started implementing wide-ranging fiscal and structural reforms from late 2001 to 2003/04. Though a late comer, Tamil Nadu’s fiscal reform proceeded at a rapid pace that stemmed the fiscal decline. Several reforms were bold and path breaking both in the context of the past history of the state, and in the national context. However, fiscal policy reversals by the GoTN in areas such as electricity tariff, the public...
distribution system and user charges - in the aftermath of electoral losses in the April-May 2004 national elections - have the potential of increasing the revenue (current) and fiscal deficit and jeopardize the gains made thus far, threatening fiscal consolidation and the credibility of the Medium Term Fiscal Program (MTFP). Tamil Nadu has little choice but to return to the path of fiscal consolidation if it is to meet its development goals.\(^1\)

Tamil Nadu was struck by a massive tsunami on December 26, 2004 leading to tragic loss of 8,010 lives and loss of livelihood of 400,000 families. 130,000 families were displaced. The Tamil Nadu government has estimated the financial requirements for relief and rehabilitation to the victims of this massive human tragedy and affected infrastructure at Rs. 4,800 crore. Rehabilitation and restoration of livelihood is expected to be spread over three years. This report was written before the tsunami struck Tamil Nadu. An assessment of the economic and fiscal impact of the tsunami has therefore not been factored into this report. Preliminary estimates of the fiscal impact on the state's finances of the expenditure on tsunami relief and rehabilitation for 2004/05 are placed at 0.2 percent of GSDP and over the next three years the impact is estimated to be 0.7 percent of GSDP each year. However, the actual fiscal impact on Tamil Nadu will depend on the nature of the relief assistance provided by the Government of India to the GoTN and how much of that will be through the state's budget and/or through banks and cooperative institutions. To the extent that a grant element will dominate central government assistance to tsunami affected states to meet the cost of rehabilitation the fiscal impact on the state will be minimized. Some of the assistance will be passed through to the state budget, such as central government subsidy to fishermen to obtain loans from commercial banks to repair and buy boats. For instance out of Rs. 2,347 crore assistance announced recently by the central government for purchase of fishing vessels and nets grants of only Rs. 441 crore would be routed through the Tamil Nadu government whereas the rest is to be provided as soft loans by commercial banks.

The other event that will have a great bearing on state governments' finances over the next five years beginning 2005/06 is the Twelfth Finance Commission's (TFC) awards for the period 2005/06 to 2009/10. The TFC has fixed Tamil Nadu's share in the total divisible pool of central taxes at 5.305% as opposed to the prevailing 5.385%, a marginal decrease. But states' share in the centre's total divisible tax pool has been increased from 29.5% to 30.5%. Tamil Nadu's effective share is therefore unaltered at 1.6% of central taxes. The total devolution of central taxes to Tamil Nadu over the five year period is estimated by the TFC at Rs. 32,553 crore. The TFC has done away with normal central loan assistance for state plans in favor of market borrowings. Tamil Nadu is not affected by this change. The TFC also recommended debt relief to the states in the form of restructuring of all central loans with state governments' as of March 31, 2004 outstanding as of March 31st, 2005. The loans will be consolidated and rescheduled at 7.5% interest rate repayable over twenty years. This has been made conditional on states' enacting Fiscal Responsibility Legislation which Tamil Nadu government already has and is therefore straightway eligible for debt restructuring. As a result, Rs. 6,872 crore of outstanding central loans on Tamil Nadu government's books will be restructured. The TFC has also recommended debt write-off linked to reduction in the revenue deficit of

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\(^1\) Tamil Nadu's tenth plan (2002-2007) envisages a real economic growth rate of 8%. The Plan's goal is to make Tamil Nadu the best state in the country and provide opportunities for a healthy and productive life for all.
the state government. Under the scheme, a certain proportion of repayment of rescheduled debt will be written off by Government of India over the period 2005/06 to 2009/10. The quantum of write-off is linked to the absolute amount of reduction in the revenue deficit each year with the ultimate objective of eliminating the revenue deficit by 2008/09. Tamil Nadu can benefit to the extent of Rs. 1,718 crore in debt write-off under the scheme. Tamil Nadu also gets Rs. 1,826 crore in special purpose grants over the TFC award period. The TFC’s recommendations and a revised Medium Term Fiscal Policy of the Tamil Nadu government incorporating the TFC award became available after this report was prepared. This report has been updated with information from these two documents to the extent possible.

To provide context, this report begins by reviewing development outcomes and challenges, including the Millennium Development Goals, in Tamil Nadu (Section I). Section II focuses on fiscal correction and sustainability. Section III focuses on improving investment climate for promoting private sector development in manufacturing and services. Section IV is devoted to reinvigorating agriculture growth. Section V addresses challenges of strengthening public administration and improving service delivery. Section VI discusses the strengthening of poverty monitoring and evaluation. Section VII concludes with a summary of reform challenges and risks.
Executive Summary
Executive Summary

Tamil Nadu's Development Achievements and Challenges

Successful poverty reduction and development outcomes

Tamil Nadu's performance on poverty reduction was above India's national average in the 1990s achieving an above-average reduction in poverty in both rural and urban areas. Tamil Nadu’s poverty headcount has reduced from 35.4% in 1993/94 to 21.1% in 1999/2000 according to Planning Commission’s estimates. Notable success has been achieved in human development outcomes too in the state. From being a near-average state with a Human Development Index (HDI) of 0.343 in 1981, Tamil Nadu has moved to a high-performing state with the third highest HDI of 0.531 in 2001. Tamil Nadu is on track to meet most of the Millennium Development Goals (MDGs), with trend performance better than required for such important MDGs as poverty reduction, child malnutrition, school enrollment, and infant mortality.

Tamil Nadu’s success is the result of sustained economic growth and an effective human development strategy. The strategy has focused on three main areas: (i) expanding the coverage of social services, (ii) improving the quality of services provided, and (iii) ensuring wide participation of the poor and other marginalized groups.

Notwithstanding positive development outcomes, Tamil Nadu faces many development challenges. Still a low-income state, Tamil Nadu has a relatively high poverty incidence, and gender, caste, and intra-state disparities in key poverty and social indicators. High drop-out and low completion rates continue to reduce the effectiveness of Tamil Nadu’s secondary education program. The crude birth rate has been hovering around 19-20, neo-natal mortality has been stagnating, and female infant mortality rate remains high. There are significant rural-urban differentials and inter-district variations. The state also faces a high rate of malnutrition in children, and confronts a high prevalence of HIV/AIDS. Tuberculosis is reemerging in association with HIV/AIDS and non-communicable diseases are on the rise.

Growth has slowed down

The liberalization in the 1990s accelerated economic growth in Tamil Nadu. However, in recent years growth has slowed, from an annual average of 6.6% from 1990/91 to 1998/99 to an annual average of about 3.7% from 1999/00 to 2002/03. Much of the recent slowdown is attributed to the impact of the droughts on agriculture and their spillover to other sectors. Three annual droughts, led to an annual average of -3.9% growth during 1999/00-2002/03 compared with an annual average of 4.5% in the previous nine years. Although droughts are exogenous shocks, there are structural impediments, overcoming which could put economic growth on a higher trajectory path of 8% targeted by the GoTN to accelerate the pace of poverty reduction. Tamil Nadu’s agriculture
faces challenges of growing water scarcity, land-degradation, decline in farm sizes, and rising cost of agricultural labor.

Although, Tamil Nadu has been one of the most favored foreign and domestic investment destinations in India accounting for 15% of all-India merchandise exports and 17% of all-India IT exports, the investment climate faces several constraints. Rigid labor regulations, a complex and cascading indirect tax system, protracted exit and bankruptcy procedures, and infrastructure deficiencies are among the key constraints to better manufacturing performance in India and Tamil Nadu is not an exception. The World Bank’s 2003 investment climate survey of the manufacturing sector in Tamil Nadu reaffirms this assessment. Higher manufacturing growth, together with the growth of the service sector, is critical to absorbing surplus agriculture labor and reducing rural poverty.

Fiscal Reforms

Fiscal crisis threatened prospects of sustained poverty reduction intervention by the state

The fiscal crisis beginning in 1998/99 and slowdown in economic growth since the late 1990s not only seriously threaten the prospect for sustained poverty reduction in the future but also endanger the gains already made. The most immediate challenge that faced Tamil Nadu in 2001/02 was to reverse the rapid fiscal decline and create fiscal space for development spending. With salaries and pension of government employees (2% of the state’s population)-accounting for government’s entire own revenue during the crisis there was little fiscal space left for essential infrastructure and social spending.

State Government launched ambitious reforms targeting fiscal correction and restructuring public expenditure

Beginning from 2001, the government embarked on ambitious reforms over the next two years touching a number of areas in both revenue and expenditure. The government proceeded to do so at a rapid pace to catch up with other reforming states such as Andhra Pradesh and Karnataka. Some of the reforms were bold and path breaking both in the context of the past history of the state, such as in the Public Distribution System (PDS) and agriculture power tariff, and in the national context such as pension reform. The reforms were undertaken, notwithstanding a difficult economic environment posed by successive droughts and low economic growth. Significant gains were made over the next two years and aggressive fiscal reform targets were set for the future. By attempting expenditure reallocation the program sought to improve growth and human development achievement.

Critical elements of the fiscal reform program included: the development of a multi-year framework for fiscal adjustment through a Medium Term Fiscal Policy Statement (MTFP); improving legislative oversight and fiscal transparency; restructuring high-cost public debt and management of guarantees; improving the efficiency of the tax administration; rationalizing user charges; introducing a targeted PDS, introducing agricultural power tariff; reforming state-owned manufacturing enterprises and ailing cooperatives; and strengthening public expenditure management and financial accountability to increase the efficiency of public spending.

The impact of the fiscal adjustment program has been impressive. While the revenue (current) deficit declined from 2.1% of Gross State Domestic Product (GSDP) in 2000/01 to 0.9% of GSDP in 2003/04 and 2004/05(RE), the fiscal deficit declined from 4% of GSDP in 2000/01 to 2.4% of GSDP in 2003/04; but increased to 2.9% in 2004/05(RE). The state also achieved a primary surplus of 0.3% of GSDP in 2003/04 as compared to a deficit of -2.5% of GSDP in 1999/00. A key objective of fiscal adjustment was cleaning up of accumulated arrears from prior years. A large amount of
arrears, Rs. 3,062 crore equaling to 2% of GSDP, was cleared in 2002/03, including the securitization of Rs.1,962 crore of dues to central electricity utilities by the Tamil Nadu Electricity Board. The consolidated fiscal deficit (which consolidates the non-power budget fiscal deficit with the Tamil Nadu Electricity Board’s financing requirements) was reduced from a peak of 6.7% of GSDP in 1999/00 to 4.8% of GSDP in 2002/03. The close to two percentage point reduction from 1999/00 to 2002/03 was largely attributed to an increase in the ratio of the state’s own tax revenue to GSDP (from 8.6% in 1999/00 to 9.3% in 2002/03), and a reduction in the ratio of salaries to GSDP (from 6.5% in 1999/00 to 5.2% in 2002/03). The consolidated fiscal deficit decreased further to about 3.8% of GSDP in 2003/04.

The composition of expenditure has shown improvement with higher allocations for non-wage Operations and Maintenance expenditure, particularly in 2003/04 and 2004/05(RE). The share of capital outlay, net lending, non-wage operations and maintenance expenditure showed sharp recovery in 2003/04 and 2004/05(RE) after declining over the earlier two years.

Based on the fiscal turnout in 2004/05(RE) and taking into account the Twelfth Finance Commission’s recommendations, the Government of Tamil Nadu has tabled a revised MTFP along with the 2005/06 budget. The MTFP revised along conservative lines seeks to generate a revenue surplus by 2008/09 and bring the fiscal deficit to below 3% of GSDP by 2005/06. The MTFP targets are achievable. Getting the full benefit of the Twelfth Finance Commission’s recommendation on debt relief and write-off is conditional on the state meeting these revised targets.

The Government of Tamil Nadu has initiated reforms of the systems and processes of budget formulation and execution. However, reforms are needed to achieve the Government's development objectives and to adapt the institutional arrangements to support fiscal strategy. The key challenge is to ensure that a comprehensive resource framework and a medium-term perspective effectively guide the three objectives of budget management: aggregate fiscal discipline in line with the medium-term fiscal program, strategic policy decisions by the Government within the constraints of the fiscal program, and efficient use of public expenditure in government operations. The Tamil Nadu Fiscal Responsibility Act (FRA), already passed by the government lays the foundation for aggregate fiscal discipline by emphasizing transparency and disclosure of the medium-term fiscal program with each budget. But attention will be required to comply with FRA provisions.

Tamil Nadu needs to substantially strengthen its upstream capacity for policy formulation. The establishment of a Policy Review Committee, to be chaired by the Development Commissioner, could provide leadership and focus to this key capacity-enhancing reform. The Policy Review Committee can rely on a network of public and private institutions to undertake public policy research and analysis.

An early submission of the draft budget to the legislature can help bring budget approval closer to the start of the fiscal year, facilitating budget execution. A review of budget execution processes can help identify and address current weaknesses. Together with improvements in internal control systems, the Government should explore an increase in the scope for virement within departmental budgets. The Government should also plan to constitute a standing Expenditure Review Committee to undertake rolling annual reviews of departments to identify unproductive programs and to rationalize and improve efficiency of existing programs.
The framework for public financial accountability in Tamil Nadu is generally sound. Nevertheless, several areas need strengthening. The need for reform is particularly evident in the area of budget execution procedures, including the weaknesses in internal controls and the need to eliminate or reduce reliance on Personal Deposit Accounts in the Public Accounts. The Government also needs to develop measures to address key internal control issues such as reconciliation of accounts, reconciliation of loans and advances, timely submission of utilization certificates, and incentives for compliance.

Policy reversals after national elections of 2004 impede accelerated progress in fiscal restructuring

Following the national elections in April-May 2004, in the state, key policy reforms were rolled back. A series of quick reversal of significant reform measures was announced (power, PDS and reintroduction of free bus passes for students and withdrawal of other minor user charges). This has posed increased expenditure besides making it more difficult in the future to return to the policy reform path. Extension of free power to all agriculturists and slashing power tariff to domestic consumers to pre-reform levels of 2001 is expected to cost Rs. 920 crore in 2004/05, withdrawal of PDS targeting will raise food subsidy by about Rs. 130 crore in 2004/05 and restoration of student bus passes & concession fare would cost Rs. 125 crore in 2004/05. Additional expenditure on account of these proposals in 2004/05(RE) is about Rs. 1,650 crore. The impact of these is seen in the 2004/05(RE) wherein despite higher revenue outturn and large savings in salary and pension expenditure (as compared to the budget), the fiscal deficit increased to 2.9% of GSDP as compared to 2.4% in 2003/04.

If the fiscal reform and MTFP are broadly on track, Tamil Nadu's debt stock is expected to stabilize around 31% of GSDP (from 28% in 2003/04), a level below that in many other Indian states. However, due to fiscal burden of recent policy reversals, the debt to GSDP ratio may increase to 32% of GSDP by 2008/09.

Improving the Investment Climate

Complementary focus on improving the investment climate required for accelerating growth

Fiscal reform must be complemented with a strong program to improve the investment climate for accelerating economic growth and poverty reduction. Findings from the investment climate surveys in Tamil Nadu suggest that cumbersome and excessive regulation and infrastructure bottlenecks are major or serious constraints to growth. Recognizing the role of the private sector as an engine of economic growth, the Government of Tamil Nadu has put emphasis on streamlining complex government regulations over private investment and production, and on strong partnership with the private sector for sustainable infrastructure financing and development. A number of infrastructure projects executed in the Public Private Partnership (PPP) format bear testimony to government's commitment.

The reform agenda before the government deals with not only regulatory policies and practices concerning all factor markets (labor, land, and capital), but also regulation of entry/exit for enterprises and tax policy and administration. There are 23 Union Acts and seven State Acts and Rules which are enforced by the Labor Department in Tamil Nadu. For each of these subjects there are different enactments by the center as well as implementing rules by the state. Many regulations are excessive and outdated (e.g., no overlapping of shifts, capping of overtime, official permission required for working on Sunday or holidays, specified number of food cafeterias, and over 60 types of minimum wages). Labor regulations are largely within the purview of the central government.
Nonetheless, within the federal framework, Tamil Nadu can explore ways to rationalize and consolidate implementing rules concerning the legal framework governing labor and statutory compliance requirements to create elbow room for contractual labor relationship and for easing threshold for retrenchment.

**Urban land market suffers from systemic weaknesses**

Tamil Nadu’s urban land market suffers from systemic weaknesses. Master plan designations in the absence of complementary incentives and measures make the supply of land for development inefficient. Urban land issues are within the purview of the state government. It is important to rationalize regulations on urban land zoning and development controls, project approval and land acquisition processes, and develop a more effective planning and management system to facilitate infrastructure development.

**Tax administration imposes high compliance costs**

The tax administration imposes high compliance costs by, for example, lack of self-assessment in the sales taxation for large businesses and of electronic filing, cumbersome registration procedures, and time-consuming dispute resolution, which all encourage undesirable frequent contacts between businessmen and tax officials. Some of these and tax issues will be resolved when VAT is implemented.

**Streamlining Business Entry**

Tamil Nadu has made progress in simplifying regulations over business entry. The sequential and protracted approval process involving multiple government departments/agencies has been replaced by a streamlined and coordinated one for large investment projects. The streamlined process for large investment projects needs to be extended to all medium-sized and small projects.

**Infrastructure a constraint to improving competitiveness**

Power has become a major infrastructure constraint despite the relative efficiency of the state power utility and having the second largest power market in India. High power tariff to industries and poor quantity and quality of power supply reduce the competitiveness of Tamil Nadu’s industries. The financial stress of the TNEB, arising largely from cross subsidy to agriculture (and now the domestic consumer segment also), has increasingly constrained its investment ability to improve the quality of power supply. Like many other states, Tamil Nadu will need to find a political solution to the metering of agriculture pump sets and reduction of cross-subsidy to improve the competitiveness of industry and services.

A clear regulatory framework for support of public private partnerships in infrastructure needs to be put in place which would define the role of the government and the private sector, lay out the risk sharing principles and also regulate the tariff regime for private roads. An important priority is to press forward with fiscal reform to create fiscal space for investment in the infrastructure sector.

**Priority Reforms**

Priority reforms comprise the following areas: labor market flexibility; a more responsive urban land supply system; more efficient tax policy and administration; continuing reform to ease entry and operation; power sector reform; and scaling up PPP for sustainable infrastructure development. Some of which are not entirely in the state’s purview, but which the state can articulate in its dialogue with the central government. The wide scope of issues is not surprising and will thus require an institutionalized dialogue between the Government and the private sector for setting priorities and finding solutions.
Traditional sources of agricultural growth face major constraints

While agricultural sector growth rates in Tamil Nadu were among the highest in India during the 1980s and early 1990s, deceleration in growth since the mid-1990s is of increasing concern to policymakers. During the 1980s agricultural GSDP grew at 3.4 percent, exceeding the all-India agricultural growth of 2.9 percent. But repeated drought in the nineties meant that the state's agricultural growth rate was only 2.9 percent a year, compared with 3.2 percent for the nation. Analysis has shown that a one percent increase in rainfall relative to the mean is associated with a 0.3 percent increase in real agricultural GSDP relative to the trend agricultural GSDP.

There are three salient features of Tamil Nadu's agriculture that set the political economy context for searching a viable strategy for revitalizing agriculture growth: water scarcity; the large share of rice and sugar cane (both water-intensive crops) in total irrigated land; and the dominance of small and marginal farmers in overall agriculture production. Faster growth in agriculture is central to rural development and poverty reduction in Tamil Nadu. Although agriculture accounts for only 14% of Tamil Nadu's GSDP and non farm income accounts for about 50% of rural household income, farm income accounts for about half of household income for 35 million people (56 percent of the state's population) who live in rural areas.

Traditional sources of agricultural growth, however, face major constraints including growing water scarcity, increasing land degradation and declining farm sizes, and rising costs of agricultural labor. The agricultural sector faces increasing competition for water from industry and domestic users and intensifying interstate competition for surface water resources. In many parts of the state, the rate of extraction of groundwater has exceeded recharge rates, contributing to falling water tables. Efficient water resource management is a key priority for not only agriculture but also the entire state economy requiring complex regulatory and institutional changes beyond the medium term.

Crop diversification important for future agricultural growth

Given water scarcity, diversification into less-water intensive higher-value products is the most promising avenue for future agricultural growth. Broader institutional and policy reforms are required to efficiently manage scarce water resources, decentralize the agricultural extension system, improve rural infrastructure to facilitate efficient markets, and reorient public expenditure towards growth-enhancing areas such as rural roads, markets and agricultural research.

Marginal Cost pricing of water and electricity will rationalize water use

Gradual steps towards marginal cost pricing of water and electricity, (perhaps combined with compensation to farmers in the form of income transfers or more reliable electricity supply), would help rationalize water use in Tamil Nadu. The agricultural power tariff introduced in March 2003 included a flat rate for unmetered connections of Rs.250 per horsepower a year and Rs.0.20 per kilowatt-hour for metered connections. Along with the reintroduction of agricultural power tariff, the government announced an income support scheme for smallholders and marginal farmers. Under the income support scheme, the Government of Tamil Nadu provided smallholders and marginal farmers a transfer of up to Rs. 1,250 a year. This was a significant step toward creating a more direct and transparent system of subsidies to farmers and other target groups and ensuring the separation of commercial operation of the power utility from the need for subsidy. However, these
initiatives were rolled back after the national elections in 2004.

Metering of farmers is critical to link agricultural tariffs to consumption levels. Metering will also enable power subsidy to be better targeted. If farmers' costs and incomes varied according to the amount of electricity (and water) used with well irrigation, farmers would have an incentive to shift some land from water-intensive crops towards less water-intensive crops. Greater attention to marketing infrastructure, strengthening the research and extension system to meet the needs of diversified agriculture, the development of tools for farmers to better manage risks, improving irrigation pump set efficiency and putting in place safety net programs to cushion against the risk of diversification particularly for small and marginal farmers who rely mainly on agriculture subsistence income may create an environment within which higher power charges would be more palatable for farmers.

**Governance and Service Delivery**

The government's capacity to deliver services needs strengthening

The strengthening of public expenditure management and financial accountability would need to be supported by public administration reform to enhance service delivery. Tamil Nadu has done well in delivering key services. A recent survey conducted by the Public Affairs Center reveals that the state has the country's best public distribution and school education systems, and the second best public drinking water and road transport services. Tamil Nadu's performance is not a uniform picture: health services, for example, are ranked fifth.

Tamil Nadu faces several critical challenges that need to be addressed to preserve and extend the gains made so far. To support fiscal reform and the reform of the investment climate, service delivery reform would also need to focus on strengthening the effectiveness of the government by rationalizing its role and responsibilities, simplifying decision-making processes, improving the stability of staff tenure, and enhancing critical services delivery which have a large public interface through a combination of measures such as agency reform, e-governance, and public private partnerships. Further, the reform would need to address the transparency issues regarding government and corruption, through a major overhaul of the public procurement system, enacting new "Right to Information" legislation, and strengthening the anti-corruption machinery.

**Improving Civil Service productivity is key to efficient government**

The civil service in Tamil Nadu has proliferated in the last twenty years: Tamil Nadu today possesses the highest ratio of civil servants per hundred population in India of any major state after Punjab. To rationalize and restructure the civil service and improve its productivity, the Government constituted a Staff and Expenditure Reforms Commission (SERC) in December 2001 to systematically review and realign the roles and responsibilities of each of the 140 departments and identify redundant departments/functions/posts, including areas where the government should exit and let the private sector take over. The exercise was carried out with the benefit of extensive consultation within the government, including with staff associations and unions, as well as consultation with the public. The SERC reports have identified about 85,000 surplus posts, and 113,000 vacant posts made feasible by hiring freeze. The reduction in the core civil service size (posts) by 2007/08 (from 2002/03) can be achieved by abolishing 85,000 posts using 2002/03 as the base year. The abolishing of the surplus posts will enable a more efficient allocation of staff across departments within the targeted ceiling.

To simplify the decision-making process, the SERC also reviewed the functioning of the
Secretariat, focusing on improving efficiency through delegation to heads of departments, level-jumping, the introduction of the single-file system, and computerized file monitoring and greater flexibility for redeploying staff. The government has issued orders permitting level jumping of files.

Responding to the problem of pre-mature transfers, the Government introduced a system of formal counseling for transfers in both the Health and Education Departments. The Government has also issued orders regarding norms to be followed in transfers covering the entire civil service. The order specifies transferring authorities, established norms for three- to seven-year tenure, limited transfers to 20% of cadre strength and to the season only, and announced the creation of a public transfer database on the internet to track transfers over time.

Room for improving Service Delivery
While Tamil Nadu has done well in service delivery in some key areas relative to the rest of the country, there is still room for improvement. A number of reforms are ongoing; these include improving the Registration Department by introducing a computerized guidance value calculation software package for use in its sub-registries, and promoting the development of kiosks in villages to improve rural service delivery and empower rural citizens.

Over the next few years, in addition to policy and institutional reforms in critical sectors such as water supply and sanitation, education and health to enhance service delivery, the Government plans to focus on improving 10 critical services with a large public interface, including regional transport services, commercial tax, stamps and registration for property transfers, district administration, and local bodies. It plans to accomplish this through a combination of measures such as e-governance, process reengineering, citizens' charters, and partnerships with the private sector. Revision of citizen charters for agencies with large public interface must be done on a priority basis (e.g. district hospitals) and surveys used to provide feedback.

Systemic reforms required to improve Transparency
Tamil Nadu was the first Indian state to introduce legislation, in October 1998, to improve transparency in public procurement and to regulate tendering and contracting procedures of government departments, statutory bodies, public sector enterprises and other local bodies. The pace of procurement reform has been accelerated, focusing on the implementation of the Act. The government has completed a three-year comprehensive procurement reform action plan. This will include: setting up a complaint/challenge/appeal mechanism; finalizing and issuing five sets of Standard Bidding Documents; finalizing the revision of Finance, Accounts, and Public Works codes; improving works procurement procedures; introducing code of ethics for officials and the business community and tightening enforcement; evaluation of reservation and exemptions with a view to provide a level-playing field; enlarging the scope of rules to cover consultant selection procedures; and issuing guidelines and directives on procedural improvements.

In addition to ongoing systemic reforms to prevent corruption (e.g., procurement reform, business deregulation, e-governance, and fiscal transparency), enforcement efforts need strengthening. The Vigilance Commission and its investigating agency, the Department of Vigilance and Anti-Corruption (DVAC) function as government agencies. Neither the Vigilance Commission nor the DVAC possessed a public website to disseminate performance information. The government needs to consider
the creation of an independent institutional mechanism to focus on corruption and grievance redressal in service delivery, and greater transparency in the functioning of DVAC.

Tamil Nadu passed the country’s first Right to Information (RTI) Act in 1997; the Act itself, however, was flawed with numerous exemptions. The law falls below GoI’s standards set in the Freedom of Information Act (2002), as well as the standards of state laws in Delhi, Karnataka, and Maharashtra. The Government is currently preparing a new draft law that will provide for minimal exceptions, an independent appeals process, penalties for non-compliance, and more automatic disclosure of information by departments.

**Poverty and Human Development**

The capacity to monitor the progress of poverty and human development remains critical.

About 12 million people live in poverty in Tamil Nadu. Scheduled castes and tribes are highly represented among the poor due to their owning less land, and of lower quality, as well as other assets (particularly human capital). Important challenges in the non-income dimensions of poverty remain to be tackled in health, education, water supply and sanitation and nutrition.

The broad structural reform program thus needs to be supported by protecting the poor and vulnerable through targeted interventions. The Tenth Five-Year Plan provides a detailed description of the poverty-reduction programs, which are wide ranging, to cover health, education, water supply and sanitation, and food security. These programs include schemes targeted to particular social and demographic groups such as scheduled castes and tribes, women and children. The specific interventions broadly match the spatial and social needs revealed by the poverty diagnostics although there is scope for improving the design and targeting efficiency. To this end, strengthening poverty monitoring and evaluation for effective targeting is an important focus area. For example, developing strong institutional capacity for evaluation based learning is invaluable for improving the targeting in schemes such as the Public Distribution System. Similarly, building institutional capacity for an effective monitoring and feedback mechanism that ensures aligning of budgets to priority needs in education, health and broader aspects of service delivery will be important in the coming years.

There appears to be a case for paying special attention to the rural areas in the Coastal North and the South, and possibly to the urban areas in the Coastal North. Scheduled Castes and Scheduled Tribes also appear to face particular barriers to upward mobility, and the data suggest that these stem at least in part from three sources: access to land, education, and regular non-farm employment. Addressing them will therefore be a vital part of any poverty alleviation strategy pursued by the state.

**Investment in poverty monitoring and evaluation important for developing a comprehensive poverty reduction strategy**

Developing a comprehensive poverty reduction strategy will involve more investment in poverty monitoring and evaluation (M & E). This is not a problem particular to Tamil Nadu: it is common to all of the states in India, as it is to most of the developing world. Monitoring of extant anti-poverty policies and social services more generally is, however, important if one is to gauge whether implementation is proceeding according to plan and achieving its stated objectives. The Government of Tamil Nadu is an ideal agent for engaging in M & E, given its voluble commitment to combating poverty, openness to receiving feedback, and rich human capital resources. Impact evaluations are most appropriate to programs which are innovative, replicable,
The capacity to monitor the progress of poverty and human development and link that with overall policy and poverty-reduction interventions remains critical. There is also scope for aligning the various programs listed in the Tenth Plan to improve coordination and targeting: many programs are not coordinated, with multiple, overlapping and sometimes different objectives.

**Capacity to manage a complex and growing reform agenda requires strengthening**

Substantial capacity building and broad-based knowledge partnerships can help address the management of reforms in priority areas such as water resources management, agriculture diversification, public expenditure management, and public-private partnerships in infrastructure financing and development.

In summary, much has been achieved but a lot remains to be done. Political economy and capacity constraints may result in temporary reform uncertainty. What is critical is commitment to reform, as well as the sequencing and prioritization of reforms, and careful managing of trade-offs in reform gains, costs, and risks. To do so, it is important to build a broadly-shared consensus through public debate and to carefully design a minimum set of policies and programs to compensate for the impact of reform, so as to maintain a critical mass of support for reforms to proceed.
Development Outcomes and Challenges
1 Development Outcomes and Challenges

Development Outcomes

Millennium Development Goals (MDGs). A graphical analysis of Tamil Nadu’s performance against six of the MDGs is presented below (Figure 1.1). Tamil Nadu is on track to meet most of the MDGs, with trend performance better than required for such important MDGs as poverty reduction, child malnutrition, school enrollment, and infant mortality. Reduction in the discrepancy of male-to-female literacy is slightly below the target.

Poverty outcome. Tamil Nadu’s performance in poverty reduction was above India’s average in

Figure 1.1: Progress in Tamil Nadu toward Key Millennium Development Goals (MDGs)

Note: The baseline for the MDGs is based on extrapolation from existing data to the MDG baseline year, 1990.
the 1990s (Figure 1.2), according to the Deaton and Dreze estimates (2002). Rural poverty in Tamil Nadu fell from 38.5% in 1993/94 to 24.3% in 1999/2000, compared with an all-India decline from 33% to 26.3% (Table 1.1). Rural poverty varied widely across regions in 1993/94. As rural poverty has fallen, the sharp regional variation has also attenuated. Rural poverty is the highest in the coastal north. Poverty rates in urban areas also tend to be lower than those in rural areas. Urban poverty fell from 20.8% in 1993/94 to 11.3% in 1999/2000, compared with an all-India decline from 17.8% to 12%. Thus, compared with the all-India performance, Tamil Nadu achieved an above-average reduction in both rural and urban areas. Tamil Nadu ranks sixth out of the 15 major states in per capita income.

It is important to note that poverty estimates in India based on the 55th round National Sample Survey Organization (NSSO) Consumer Expenditure Survey have been the subject of much analysis and debate. Depending on the

![Figure 1.2: Tamil Nadu's performance on economic growth and poverty reduction](image)

**Table 1.1: State-Specific Poverty Headcount Ratios in the 1990s (%)**

<table>
<thead>
<tr>
<th>State</th>
<th>Rural 1999/00</th>
<th>Reduction from 1993/94</th>
<th>Urban 1999/00</th>
<th>Reduction from 1993/94</th>
<th>Combined 1999/00</th>
<th>Reduction from 1993/94</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>26.2</td>
<td>3.0</td>
<td>10.8</td>
<td>7.0</td>
<td>21.7</td>
<td>4.5</td>
</tr>
<tr>
<td>Karnataka</td>
<td>30.7</td>
<td>7.2</td>
<td>10.8</td>
<td>10.6</td>
<td>25.1</td>
<td>8.1</td>
</tr>
<tr>
<td>Kerala</td>
<td>10.0</td>
<td>9.5</td>
<td>9.6</td>
<td>4.3</td>
<td>9.9</td>
<td>8.2</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>31.9</td>
<td>11.0</td>
<td>12.0</td>
<td>6.2</td>
<td>24.2</td>
<td>9.5</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>24.3</td>
<td>14.2</td>
<td>11.3</td>
<td>9.5</td>
<td>19.8</td>
<td>12.5</td>
</tr>
<tr>
<td>All-India</td>
<td>26.3</td>
<td>6.7</td>
<td>12.0</td>
<td>5.8</td>
<td>22.7</td>
<td>6.5</td>
</tr>
</tbody>
</table>

**Source:** Deaton and Dreze (2002). These figures differ from the GoI and WDI estimates since they make different adjustments for survey questionnaire changes and urban-rural price differentials. The GoI estimates show that Tamil Nadu's poverty headcount was reduced from 35.4% in 1993/94 to 21.1% in 1999/2000.
specific model used to adjust for comparability between the NSSO rounds of 1993-94 and 1999-2000, there are different estimates on the extent of poverty reduction between these two years. The Government of India's estimate shows that Tamil Nadu's poverty headcount was reduced from 35.4% in 1993/94 to 21.1% in 1999/2000. An alternative estimate based on a model postulating a relationship between poverty and household characteristics (Kijima and Lanjouw, 2003, a Bank policy research working paper) shows poverty declined from 30.3% in 1993/94 to 28.9% in 1999/00. These different models also induce variations in the rural and urban headcount rates. A resolution of this debate is not possible for now, since there is no scientific way of determining which of these models better reflect the "true" picture - being essentially ex post methods of adjusting consumption expenditures to achieve comparability between the two surveys, using alternate sets of assumptions that cannot be tested. However, no matter which precise method is used, Tamil Nadu has made progress in poverty reduction in the latter half of the 1990s.

**Education and health outcomes.** Tamil Nadu has achieved notable success in human development outcomes. It has moved from being a near-average to a high-performing state, as indicated by the Human Development Index (HDI) measured in terms of longevity, education and command over resources. In 1981, its HDI ranked seventh, at 0.343, only slightly above the national average of 0.302. By 2001, however, Tamil Nadu's HDI rose to the third highest, at 0.531, higher than the national average of 0.472. Tamil Nadu has been a pioneer in India in integrating nutrition and increasing enrollment of children in elementary education. Education and health outcomes in the state have also improved across gender, caste, income and regional dimensions, particularly in the access to primary-level health and education services. The well-known Noon Meal Scheme (NMS), which started in 1982, covers all children ages 2-15 in both rural and urban areas. The main objective of the NMS was to ensure nutritional support to children but also to act as an effective incentive for achieving universal education. The program has been emulated by other states and has recently been viewed by the GoI as a model.

Tamil Nadu's success is the result of sustained economic growth and an effective human development (HD) strategy. This strategy has focused on three main areas: (i) expanding the coverage of social services, (ii) improving quality of the services provided, and (iii) ensuring wide participation of the poor and other marginalized groups. A political consensus for investing in human capital by successive state governments' and the use of a multi-sectoral approach to addressing human capital formation has also contributed to human capital gains.

**Gender equity.** Thirty-three percent of seats are reserved for women in all statutory and non-statutory committees of the state government. Tamil Nadu's performance with respect to female literacy, female infant mortality rate, female life expectancy and fertility rates shows that the status of women in Tamil Nadu is higher than in most Indian states. The Gender Development Index (GDI) for Tamil Nadu is 0.654 (2001), as against the all-India average of 0.560. Socio-economic empowerment of women through the provision of opportunities for education, self-employment and training are priorities. A key initiative is the Tamil Nadu Women's Development Project (Mahalir Thittam); the project supports over 187,000 Self-Help Groups, with membership of 3.1 million and savings of about Rs6 billion. Moreover, owing to assistance in establishing credit linkages with financial institutions, the

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Self-Help Groups have been able to access credit assistance amounting to Rs.10 billion.

**Economic growth.** The liberalization in the 1990s accelerated economic growth in Tamil Nadu, increasing average real GSDP growth rates to 6.4% from 5.4% in the 1980s. Tamil Nadu's per capita income growth ranked the third highest among Indian states in the 1990s. The faster growth of industry and services relative to agriculture has changed the shares of these sectors in the GSDP (Figures 1.3 and 1.4). Tamil Nadu has been one of the most favored foreign and domestic investment destinations in India; but India as a whole has lagged behind some other countries. Tamil Nadu accounts for 60% of merchandise exports of four southern states, 15% of all-India merchandise exports and 17% of all-India IT exports; in 2001/02, it exported US$6.5 billion worth of merchandise and US$1.2 billion worth of IT services. IT has been Tamil Nadu's strongest growth sector since 1997/98, growing by nearly 40% on an annual average basis. Traditional exports, such as textiles, ready-made garments and leather goods, have grown by only 3-6% on an annual average basis over the same period.

Economic growth has slowed since the late 1990s. The slowing is mainly the result of a decline in agriculture largely on account of three statewide droughts and their spillover impact on other sectors (see page no. 10 for analysis).

**Development Challenges**

Notwithstanding positive development outcomes, Tamil Nadu faces many development challenges. Still a low-income state, Tamil Nadu has a relatively high poverty incidence, and gender, caste, and intra-state disparities in key poverty (Figure 1.5) and social indicators. The fiscal crisis beginning in 1998/99 and slowdown in economic growth since the late 1990s not only seriously threaten the prospect for sustained poverty reduction in the future but also endanger the gains made to date.

**Poverty remains high.** With GSDP per capita of about US$588 (2003/04), Tamil Nadu remains a...
low-income state. About 12 million people live in poverty. Scheduled castes and tribes are highly represented among the poor. This is certainly due in part to their owning less land (Table 1.2), and of lower quality, as well as other assets (particularly human capital), than households which are not of the scheduled castes.

Rural poverty is concentrated among those with marginal landholdings and dependent on rain-fed agriculture. As one moves from the lowest- to the highest-income quintiles of rural household income, the contribution of agricultural wage income to total income decreases monotonically, while that of cultivation and non-farm sources increases monotonically (Table 1.3). Reinvigorating agriculture growth and accelerating industrial growth, together with solid growth in the tertiary sector, remain critical for sustained poverty reduction. Data limitation prevents a fuller understanding of urban poverty.

Important challenges in the non-income dimensions of poverty remain. High drop-out

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### Table 1.2: Rural Poverty Incidence and Shares by Land Ownership among SC/ST’s

<table>
<thead>
<tr>
<th>NSSO Round</th>
<th>Extreme Poverty Incidence</th>
<th>Poverty Incidence</th>
<th>% of rural SC/ST population</th>
<th>% share of extreme poor</th>
<th>% share of the poor</th>
<th>Extreme Poverty Incidence</th>
<th>Poverty Incidence</th>
<th>% of rural SC/ST population</th>
<th>% share of extreme poor</th>
<th>% share of the poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>No land</td>
<td>24</td>
<td>47</td>
<td>27</td>
<td>23</td>
<td>24</td>
<td>21</td>
<td>40</td>
<td>17</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>&gt;0 &amp; 0.4 ha</td>
<td>31</td>
<td>57</td>
<td>62</td>
<td>61</td>
<td>32</td>
<td>58</td>
<td>71</td>
<td>71</td>
<td>73</td>
<td></td>
</tr>
<tr>
<td>&gt;0.4 &amp; 1 ha</td>
<td>33</td>
<td>56</td>
<td>10</td>
<td>12</td>
<td>53</td>
<td>74</td>
<td>8</td>
<td>13</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>&gt;1 &amp; 2 ha</td>
<td>21</td>
<td>45</td>
<td>4</td>
<td>3</td>
<td>40</td>
<td>70</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>&gt;2 &amp; 4 ha</td>
<td>0</td>
<td>11</td>
<td>2</td>
<td>0</td>
<td>17</td>
<td>50</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>&gt;4 ha</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>overall</td>
<td>28</td>
<td>53</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>32</td>
<td>57</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Note: (i) Extreme poverty is defined as per capita consumption rank <20% in the total consumption distribution. (ii) Poverty is defined as per capita consumption rank <40% in the total consumption distribution.

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2 Poverty incidence of 19.8% is based on Angus Deaton and Jean Dreze (2002).
and low completion rates continue to reduce the effectiveness of Tamil Nadu’s secondary education program. Completion and drop-out rates still mask disparities across the state (Figure 1.6). For example, about 15 percent of students drop out at the primary level, nearly a third by elementary school, nearly three-fifths prior to completing Grade X (or SSLC) and about three-fourths by Higher Secondary. There are still gender, caste, inter-district, and urban-rural disparities. The gender gap in education is especially larger among poorer households. Scheduled castes and scheduled tribes also have significantly lower educational attainment than non-scheduled castes/scheduled tribes.

### Table 1.3: Household Income Shares by Source in Rural Tamil Nadu

<table>
<thead>
<tr>
<th>Quintile</th>
<th>Cultivation</th>
<th>Agriculture</th>
<th>Non farm</th>
<th>Non farm</th>
<th>Non farm</th>
<th>Total</th>
<th>Non farm</th>
<th>Other</th>
<th>Real Per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>wage Labor</td>
<td>wage Labor</td>
<td>employment</td>
<td>Regular</td>
<td>sources</td>
<td></td>
<td>sources</td>
<td></td>
<td>Income Rs.</td>
</tr>
<tr>
<td>Lowest</td>
<td>26.3</td>
<td>51.6</td>
<td>11.4</td>
<td>7.3</td>
<td>1.1</td>
<td>19.8</td>
<td>2.3</td>
<td>1093</td>
<td></td>
</tr>
<tr>
<td>Q2</td>
<td>27.8</td>
<td>27.5</td>
<td>18.2</td>
<td>14.1</td>
<td>10.9</td>
<td>43.2</td>
<td>1.6</td>
<td>2130</td>
<td></td>
</tr>
<tr>
<td>Q3</td>
<td>32.6</td>
<td>21.6</td>
<td>15.5</td>
<td>18.0</td>
<td>10.9</td>
<td>44.4</td>
<td>1.4</td>
<td>3377</td>
<td></td>
</tr>
<tr>
<td>Q4</td>
<td>35.7</td>
<td>14.9</td>
<td>14.2</td>
<td>7.8</td>
<td>23.4</td>
<td>45.5</td>
<td>4.0</td>
<td>5431</td>
<td></td>
</tr>
<tr>
<td>Highest</td>
<td>42.8</td>
<td>5.2</td>
<td>7.0</td>
<td>9.7</td>
<td>33.7</td>
<td>50.4</td>
<td>1.6</td>
<td>12292</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>37.7</td>
<td>13.7</td>
<td>11.0</td>
<td>10.7</td>
<td>24.8</td>
<td>46.4</td>
<td>2.1</td>
<td>4867</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** NCAER Human Development Survey 1993/4

**Note:**

1. Income from farm sources refers to cultivation income.
2. Agriculture wage labor income refers to income from wage labor on another agricultural production unit (farm, plantation, etc.).
3. Non-farm wage labor income corresponds to income from casual, usually daily wage, employment in non-farm activities.
4. Non-farm self employment income corresponds to income from home enterprises and entrepreneurial activities.
5. Non-farm regular employment income refers to income from regular, medium to long-term, salaried employment in non-farm activities.
6. Income is expressed in annual, 1993, terms (adjusted for spatial price variation using the price indices proposed by Deaton and Tarozzi, 2000).

and low completion rates continue to reduce the effectiveness of Tamil Nadu’s secondary education program. Completion and drop-out rates still mask disparities across the state (Figure 1.6). For example, about 15 percent of students drop out at the primary level, nearly a third by elementary school, nearly three-fifths prior to completing Grade X (or SSLC) and about three-fourths by Higher Secondary. There are still gender, caste, inter-district, and urban-rural disparities. The gender gap in education is especially larger among poorer households. Scheduled castes and scheduled tribes also have significantly lower educational attainment than non-scheduled castes/scheduled tribes.

### Figure 1.6: Education Status by Wealth Group

**Source:** Filmer and Pritchett (1999).
With regard to health challenges the crude birth rate (CBR) has been hovering around 19-20, neo-natal mortality has been stagnating, and the female infant mortality rate remains high. There are significant rural-urban differentials and inter-district variations. The state also faces a high rate of malnutrition in children, and confronts a high prevalence of HIV/AIDS. Tuberculosis is reemerging in association with HIV/AIDS and non-communicable diseases are on the rise.

Rapid fiscal decline. Traditionally a fiscally better-managed state, Tamil Nadu experienced an unprecedented fiscal crisis beginning in 1998/99. The crisis manifested in rapid growth in revenue (current) and fiscal deficits, growing debt and contingent liabilities, and worsening composition in expenditure favoring non-development expenditure. The fiscal crisis seriously crippled the state’s ability to finance development spending, which is essential for accelerating growth, reducing poverty, and improving social outcomes. The ratio of fiscal deficit to GSDP increased from 2.3 percent in 1997/98 to an estimated 4.5 percent in 2002/03, including the clearance of Rs. 3,062 crore in payment arrears accumulated from prior years (Figure 1.7 & 1.8).

The increasing reliance on borrowing to finance growing recurrent expenditure steadily increased the state’s debt burden. The debt-to-GSDP ratio climbed from 16.2 percent in 1997/98 to 28 percent in 2002/03. The ratio of debt to revenue receipt increased from 125 percent in 1997/98 to 212 percent in 2002/03. Debt accumulation resulted in rapid increase in interest expenditure. Furthermore, guarantees as a percent of GSDP rose to support the market borrowing of public enterprises. Adding guarantees to explicit public debt, the maximum liabilities of the Government as a percent of GSDP increased from 21.4 percent in 1997/98 to about 34 percent in 2002/03 (Figure 1.9).

The rapid fiscal deterioration is attributed mainly to: (i) rapid growth of expenditures on salaries, retirement benefits, and pensions, following the implementation of the Sixth State Pay Commission award along the lines of the Central Fifth Pay Commission’s award (the previous state Government implemented, in 1998, the award with retroactive effect to 1996); (ii) a growing...
burden of subsidies (particularly food subsidy); (iii) a further decline in Tamil Nadu's share in central tax devolution following the Eleventh Finance Commission's award; (iv) a growing debt and interest burden arising largely from increased borrowing to support the growing revenue deficit; and (v) higher contingent liabilities associated with fiscal support to the public sector units, cooperatives, and the statutory boards. It must be recognized that these systemic factors were undercurrent even before the crisis, and the implementation of the Sixth State Pay Commission's recommendations triggered the fiscal risks. The fiscal crisis has been a factor in the state's ability to respond to recent growth slowdown and real growth in capital outlay has been negative in the period since 2000/01.

**Challenges of accelerating economic growth.**

Growth slowed from an annual average of 6.6% from 1990/91 to 1998/99 to an annual average of about 3.7% from 1999/00 to 2002/03. Much of the recent slowdown is attributed to the impact of the droughts on agriculture and their spillover to other sectors. Tamil Nadu's agriculture is vulnerable to periodic droughts due to its dependency on
rainfall. More frequent than in the recent past, three annual droughts including the century’s worst statewide drought in 2002, led to an annual average of -3.9% growth during 1999/00-2002/03 compared with an annual average of 4.5% in the previous nine years. Despite vulnerability to droughts, Tamil Nadu’s agriculture has done better than the Indian average in growth and productivity in the past two decades. The weak performance in the agriculture sector has spilled over to the service and manufacturing sectors whose growth has also recently slowed down.

Although droughts are exogenous shocks, there are structural impediments, overcoming which could put economic growth on a higher trajectory path of 8% targeted by the GoTN to accelerate the pace of poverty reduction. Tamil Nadu’s agriculture faces challenges of growing water scarcity, land degradation, decline in farm sizes, and rising cost of agricultural labor. Rigid labor regulations, a complex and cascading indirect tax system, protracted exit and bankruptcy procedures, and infrastructure deficiencies are among the key constraints to better manufacturing performance in India. The 2003 investment climate survey of the manufacturing sector in Tamil Nadu reaffirms this assessment. Although manufacturing is recovering in India and in Tamil Nadu, higher and sustained manufacturing growth requires second-generation reforms to improve the investment climate.

Higher manufacturing growth, together with the growth of the service sector, is critical to absorbing surplus agriculture labor and reducing rural poverty. The primary sector accounts for 50% of total employment, industry accounts for 24%, and the tertiary sector accounts for 26%. Tamil Nadu has had higher rural non-farm employment than other Indian states (Table 1.4),

<table>
<thead>
<tr>
<th>Proportion of Economically Active with Primary Employment in</th>
<th>Tamil Nadu</th>
<th>Andhra Pradesh</th>
<th>Karnataka</th>
<th>Kerala</th>
<th>All-India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultivation and other</td>
<td>0.26</td>
<td>0.35</td>
<td>0.46</td>
<td>0.26</td>
<td>0.44</td>
</tr>
<tr>
<td>Agricultural wage labor</td>
<td>0.35</td>
<td>0.37</td>
<td>0.31</td>
<td>0.26</td>
<td>0.23</td>
</tr>
<tr>
<td>Non-farm casual daily wage labor</td>
<td>0.16</td>
<td>0.07</td>
<td>0.07</td>
<td>0.18</td>
<td>0.10</td>
</tr>
<tr>
<td>Non-farm self employment</td>
<td>0.10</td>
<td>0.14</td>
<td>0.09</td>
<td>0.16</td>
<td>0.23</td>
</tr>
<tr>
<td>Non-farm regular salaried labor</td>
<td>0.13</td>
<td>0.06</td>
<td>0.06</td>
<td>0.14</td>
<td>0.11</td>
</tr>
</tbody>
</table>


In 1998-99, Tamil Nadu had the highest rice, sugar cane and groundnut yields in India and cotton yields in the state were second only to Gujarat. Increases in yields enabled land productivity to grow by 6.1 percent per year between 1987/88 and 1993/94 from Rs 16,423/ha to Rs 23,459/ha (in constant 93/94 Rs), but by only 2.4 percent per year between 1993/94 and 1999/00 (to Rs 27,099/ha in constant 93/94 Rs). Likewise, average labor productivity in agriculture increased by an average of 4.6 percent per year between 1987/88 and 1993/94 from Rs 6,681 per worker to Rs 9,024 per worker (in constant 93/94 Rs), but by only 2.4 percent per year between 1993/94 and 1999/00 to Rs 10,434 per worker (in constant 93/94 Rs).


The increase in new investment commitments in manufacturing from April 2001 to April 2003 was highest in Tamil Nadu compared with other major Indian states, based on data from the Center for Monitoring of Indian Economy.
and industrial activities are more spread across the state than most Indian states. Non-farm activities—manufacturing and services—account for about 50% of rural household income (Table 1.3). Faster expansion of the manufacturing and service sectors would help reduce the impact of seasonality of rural employment, with acute vulnerability during the droughts, on rural incomes.

### Reform Agenda

**Achieving fiscal correction and stabilization.** The most immediate challenge that faced Tamil Nadu in 2001/02 was to reverse the rapid fiscal decline and create fiscal space for development spending. With salaries and pension of government employees (accounting for 2% of the state’s population)—accounting for government’s entire own revenue during the crisis, or salaries, pension, interest, and subsidies accounting for 94% of the state’s total revenue, there was little fiscal space left for essential infrastructure and social spending. In fact, about 70% of the net borrowing of the state government in 1999/00 was for debt repayment. The resultant liquidity crisis, led to accumulation of arrears that reached 1.7% of GSDP in 2000/01 and 2% of GSDP in 2001/02.

The then newly elected Government tabled a White Paper in the state legislature in August 2001. It analyzed the systemic causes of the fiscal deterioration, and served as a platform to launch a fiscal reform program. To quote the White Paper, "Without a firm commitment to fiscal discipline and prudent management of State finances, no Government can fulfill the mandate to it by the people."

Over the next two years, the government ambitiously embarked on reforms touching a number of areas in both revenue and expenditure. It proceeded to do so at a rapid pace to catch up with other reforming states such as its neighbors Andhra Pradesh and Karnataka. Some of the reforms were bold and path breaking both in the context of the past history of the state, such as the Public Distribution System or agriculture power tariff, and in the national context such as pension reforms. The reforms were undertaken, notwithstanding a difficult economic environment posed by successive droughts and the low economic growth. Significant gains were made over the next two years and aggressive fiscal reform targets were set for the future. These would have enabled improvement in spending efficiency by making fundamental changes to the way the budget was prepared and executed. By attempting expenditure reallocation the program sought to improve growth and human development achievement.

But negative electoral results in the national elections in April-May 2004, in the state, brought about a number of policy changes involving significant rollback of key policy reforms. What followed was a series of quick reversal of significant reform measures (power, PDS and reintroduction of free bus passes for students and other user charges), adding increased fiscal cost to the budget making it more difficult in the future to return to the policy reform path. The fiscal reform effort suffered a setback jeopardizing the realization of the projected medium-term fiscal adjustment and expenditure restructuring in the Medium-Term Fiscal Program.

Critical elements of the fiscal reform program included: the development of a multi-year framework for fiscal adjustment; improving legislative oversight and fiscal transparency; restructuring high-cost public debt and management of guarantees; improving the efficiency and equity of the tax administration and rationalizing user charges; reorienting expenditure from current consumption to growth-enhancing and poverty-reducing investment; reforming state-owned manufacturing enterprises and ailing cooperatives; and strengthening public expenditure management and financial accountability to increase the efficiency of public spending.
The most challenging part of the fiscal reform program continues to remain restructuring spending on salary and pension and on explicit and implicit subsidies. The challenge is compounded by the constraint on increasing revenue resources.

**Improving investment climate for manufacturing and services.** Recognizing the role of the private sector as an engine of economic growth, the Government has put emphasis on streamlining complex government regulations over private investment and production, and on strong partnership with the private sector for sustainable infrastructure financing and development. Tamil Nadu is at the forefront of such partnership with a number of pilots that are the first in India (Box 1.1). The critical role of the private sector is facilitated by increasing recognition of the

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### Box 1.1: Public Private Partnership in Infrastructure Service Delivery

- **The Tirupur Water Supply Scheme**, the first water sector related project developed under the PPP framework in India. After a gestation period of almost 10 years, GoTN accelerated and completed legal, financial and management agreements between July 2001 and March 2003. The construction is on schedule. A total of Rs.45 crore equity and subordinated debt financing from GoTN has leveraged additional equity financing of Rs.217 crore and leveraged a debt of Rs.700 crore including financing from Tirupur Exporters Association and foreign investors. The project will supply water to the fast-growing garment export industry in Tirupur, domestic consumers in Tirupur Municipality and surrounding villages, as well as a sewerage system for the Tirupur Municipality and onsite sanitation facilities for slums. User charges are based on cost recovery with cross subsidies between industrial and domestic consumers.

- **The Alandur sewerage project** is the first such project in India using a PPP framework (BOT format) to provide underground sewerage to a town of 125,000 people near Chennai. Public awareness and support was sought through an extensive communication campaign. Some 15,000 households out of 17,000 have contributed Rs. 5,000 per household representing one third of the project cost. A notable feature is the tariff structure, developed on full user charge recovery with cross subsidies for the poor. The first community participation project, has also suffered a number of set backs due to some lack of forward planning, i.e. delays in selection of an operator for O&M of the sewerage scheme; miscommunication on the distinction between upfront payment of capital cost through community participation and a separate connection fee to each house to be levied separately. These are lessons, which can be incorporated in repeat or scaling up projects.

- **The East-Coast Highway Project** on road upgrading, operation and maintenance. The Tamil Nadu Road Development Company (TNRDC) was set up in 1998 to catalyze private sector investment in the road sector and commercialize O&M. Its equity of Rs.10 crores was split 50:50 between public and private funds. The first upgrading project financed by TNRDC is the 113 Km. long East Coast Road (ECR) connecting Chennai and Pondicherry at a cost of Rs. 60 crore. A Rehabilitate-Improve-Maintain-Operate-Transfer (RIMOT) framework was applied and commercial operations on the road commenced in March 2002. The RIMOT framework requires user charges to recover improvement and maintenance costs only, leading to lower tolls; project returns are capped at 20% and surplus if any, is reinvested in the road sector in Tamil Nadu.

- **Tamil Nadu Urban Development Fund (TNUDF)** for credit enhancement capital market financing of urban infrastructure projects. Financed through a World Bank Loan, GoTN Line of Credit, and equity from banks in 1996, the Fund had approved loans of Rs.492.27 crore as of March 2003. Notable projects are Karur Toll Bridge, Madurai Ring Road, and Pooled financing for smaller towns for water and sanitation, solid waste contracts and storm water drains. TNUDF has structured investments in basic civic amenities on the basis of debt servicing capabilities of Urban Local Bodies (ULBs) and assisted in technical and financial capacity enhancement of ULBs. The few privately contracted projects have so far had a good track record of implementation. TNUDF lends to those ULBs which are receptive to undertaking institutional and financial reforms.
positive role of the private sector in infrastructure development; it is also necessitated by the fiscal crisis and the large backlog in infrastructure investment and maintenance.

**Reinvigorating agriculture growth.** This remains critical since a vibrant agriculture sector encourages industrial growth and farm income accounts for 78% of the income of the poorest 20 percent of the rural population. Traditional sources of agricultural growth, however, face major constraints including growing water scarcity, increasing land degradation and declining farm sizes, and rising costs of agricultural labor (Box 1.2). Given water scarcity, diversification into less-water intensive high-value products is the most promising avenue for future agricultural growth. Broader institutional and policy reforms are required to efficiently manage scarce water resources, decentralize a traditionally top-down centralized extension system to respond to diversified agriculture, improve rural infrastructure to facilitate efficient markets, and reorient public expenditure towards growth-enhancing areas such as rural roads, markets and agricultural research and extension. This requires to be combined with appropriate levels of cost recovery for water, power and other inputs and safety nets for expected loss of farmers' income in the transitional period.

**Improving public administration and enhancing service delivery.** Although Tamil Nadu has one of the better records in public administration and service delivery among Indian states, the state is not immune to problems common across Indian states. To support the fiscal reform and the reform of the investment climate, the reform would also need to focus on strengthening the effectiveness of the government by rationalizing its role and responsibilities, simplifying decision-making processes, improving the stability of staff tenure, and enhancing critical services delivery— which have a large public interface through a combination of measures such as agency reform, e-governance, and public private partnerships. Further, the reform would need to address the transparency of the government and anti-

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**Box 1.2: Challenges to Sustaining Agriculture Growth in Tamil Nadu**

Tamil Nadu is one of the driest states in India, with an average of only 925 millimeters of rainfall per year. The state has a dry season that extends over five months of the year (January through May) even in good years, and severe droughts occur in three out of every ten years severely limiting cultivation of crops between the months of June and September. The per capita availability of water resources of Tamil Nadu is only 900 cubic meters compared to an all-India average of 2200 cubic meters per annum. Irrigation through a combination of canals, tanks, and wells, increases the reliability and availability of water for farming, and is essential for successful cultivation of crops in much of the state. Nonetheless, seasonality of supply and scarcity of water limit cultivation to only one crop per plot for most of the state. In addition to growing water scarcity, the agricultural sector faces increasing competition for water from industries and domestic users and intensifying interstate competition for surface water resources. In many parts of the state, the rate of extraction of groundwater has exceeded recharge rates contributing to falling water tables. Water quality issues are also of increasing concern. Effluents discharged from industries as well as heavy use of pesticides and fertilizers have had a major impact on surface water quality, soils and groundwater.

Agricultural land resources have also come under increasing pressure because of rapid population growth and increasing urbanization. The available cultivable land per rural resident has declined from 0.22 ha/capita to 0.15 ha/capita between 1971/72 and 1997/98. The growing pressures on land coupled with skewed pricing policies and rural poverty have contributed to land and soil degradation. As a result, poor soil fertility, salinity, water logging, over grazing, and deforestation are growing problems and pose serious constraints to the performance of the agricultural sector in some parts of the state.

corruption, through a major overhaul of the public procurement system, enacting new "Right to Information" legislation, and strengthening the anti-corruption machinery (Box 1.3).

**Strengthening poverty monitoring and evaluation.** The broad structural reform program needs to be supported by protecting the poor and vulnerable through targeted interventions. The Tenth Five-Year Plan provides a detailed description of the poverty-reduction programs, which are wide ranging, to cover health, education, water supply and sanitation, and food security. These programs include schemes targeted to particular social and demographic groups such as scheduled castes and tribes, women and children. The specific interventions broadly match the spatial and

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**Box 1.3: Some important Governance and Service Delivery Challenges in Tamil Nadu**

- Tamil Nadu has registered some of the best human development indicators in India after Kerala. A recent survey conducted by Bangalore's Public Affairs Center (PAC) reveals that it possesses the country's best public distribution and school education systems, and the second best public drinking water and road transport services after Gujarat. This, of course, is not a uniform picture: health services, for example, are ranked fifth.

- One key issue is the proliferation of the bureaucracy which has grown exponentially in the last twenty years. In order to get a grip on the problem, GoTN appointed a Staff and Expenditure Commission (SERC) to suggest ways of reducing the size of the civil service. SERC has submitted all its reports, which pinpoint redundant positions in Tamil Nadu's 140 field departments, as well as the Secretariat; recommend strategies for rightsizing, such as redeployment, compulsory retirement, and a targeted form of VRS; and proposes broader reforms to enhance efficiency, such as faster file movement, more delegation to field offices, and outsourcing several tasks.

- The civil service faces a problem of frequent transfers that undermine service delivery by disrupting managerial continuity and generate corruption. This is also a national phenomenon and different states have attempted to tackle it in different ways. For instance, GoTN has responded to this problem by introducing a system of formal counseling for transfers in both the Health and Education Department to reduce discretion in the process. But further steps could be taken, particularly legislation to ensure a normal term of three years, place quantitative limits on transfers in the aggregate and by cadre, and create statutory boards and/or transferring authorities to better streamline the transfer process. A database to systematically monitor transfers is necessary.

- Tamil Nadu was the first state to pass a comprehensive law to regulate procurement and ensure access to information. The procurement law is sound and GoTN has recently begun further reforms, such as creating standard bidding documents and harmonizing codes and rules across government with the procurement law. Tamil Nadu was also the first state in the country to adopt a Right to Information (RTI) law in 1997: The law, however, was seriously flawed and GoTN has now decided to replace it with a new and better law. GoTN has also used its website to provide a wealth of information to the public, including Government Orders, laws and rules, and information on departments and agencies.

- On the other hand, Tamil Nadu's anti-corruption institutions need strengthening. GoTN's High Level Committee on Administrative Reforms and the Prevention of Corruption in its 1997 report recommended the creation of an independent Vigilance Commission. The best example of a successful independent anti-corruption institution is Karnataka's Lok Ayukta, who has the authority to investigate both corruption cases and grievances arising out of maladministration involving civil servants and Ministers; exercises supervisory authority over the police wing of the Lok Ayukta (prior to 1984 the police wing functioned as the Vigilance Establishment under government control), and possesses a large budget of Rs. 6.7 crore per annum.

*Source: Tamil Nadu: Governance Challenges. World Bank, 2004.*
social needs revealed by the poverty diagnostics although there is scope for improving the design and targeting efficiency. To this end, strengthening poverty monitoring and evaluation for effective targeting is an important focus area. For example, developing strong institutional capacity for evaluation based learning is invaluable for improving the targeting in schemes such as the Public Distribution System. Similarly, building institutional capacity for an effective monitoring and feedback mechanism that ensures aligning of budgets to priority needs in education, health and broader aspects of service delivery will be important in the coming years.

Impact of reform on growth and poverty:
- Fiscal correction and sustainability can exert a positive impact on economic growth and poverty reduction in four ways: (i) by reallocating public expenditures from consumption to growth-enhancing and poverty-reducing productive spending; (ii) by strengthening public expenditure management to help increase the efficiency of public spending; (iii) by achieving a sustainable and transparent fiscal environment and increased spending on infrastructure that encourages private investment, including private spending on critical infrastructure and basic services; and (iv) by creating and protecting the fiscal space for the various targeted poverty-reduction programs envisaged in the Tenth Plan.
- Streamlining business regulations and improving infrastructure will improve the investment climate for private sector development. This particularly benefits medium and small enterprises as complex regulation and infrastructure bottlenecks tend to disproportionally affect smaller businesses. The acceleration of economic growth led by the private sector remains fundamental to poverty reduction.
- The reform component of public administration and service delivery will help address issues of common concern for all critical infrastructure and service delivery sectors relevant to poverty reduction. Streamlined government functions, simplified decision making, the stability of staff tenure, and transparency and anti-corruption measures would all contribute to improved service delivery and poverty reduction.
- The government's strengthened capacity to manage the reform process—including the capacity to evaluate and monitor major poverty-reduction interventions and link policy, expenditure and poverty reduction—will help strengthen targeted poverty-reduction interventions to the poor and disadvantaged groups.
Achieving Fiscal Correction and Stabilization
Achieving Fiscal Correction and Stabilization

Tamil Nadu's Fiscal Reform

Facing an unprecedented fiscal crisis, the Government of Tamil Nadu launched a program of fiscal correction and stabilization in 2001. To quote the August 2001 White Paper of the Government of Tamil Nadu: "Without a firm commitment to fiscal discipline and prudent management of State finances, no Government can fulfill the mandate to it by the people." The White Paper, tabled and debated in the state legislature, analyzed the systemic causes of the fiscal deterioration and articulated the need for fiscal reform and stabilization. Substantive reforms were undertaken from late 2001/02 to 2003/04. However, electoral defeat in the national election in April-May 2004 led to the rolling back of reforms. The rollbacks have resulted in: free power being restored to all farmers, substantial reduction in electricity tariff for domestic consumers, restoration of free/subsidized bus travel to private school and college students, and withdrawing PDS targeting by imposing income ceiling and rice coupons in favor of universal coverage. Minor ones have included withdrawing hospital visiting fees and outpatient charges. It is uncertain how far the rollback would go. The rollback of key subsidy reform policies mean the government's projected medium-term fiscal adjustment will prove difficult to achieve unless policy reforms that underpinned the MTFP are persevered with.

Paragraphs below summarize critical elements of the fiscal reform: the development of a multi-year framework for fiscal adjustment; improving legislative oversight and fiscal transparency; improving the efficiency and equity of the tax administration and rationalizing user charges; reorienting expenditure from current consumption to growth-enhancing and poverty-reducing investment; reforming state-owned enterprises and ailing cooperatives; and strengthening public expenditure management and financial accountability to increase the efficiency of public spending.

Development of a medium-term fiscal program.

The annual budget of the state Government, as in other states, did not reflect a medium-term perspective. The budgeting process was an incremental exercise with no clear links between policies, budget, and outcomes. Fiscal accounting, being on the mandated cash system, did not fully capture deterioration in the fiscal condition, owing to non-reporting of accrued liabilities (arrears and nonpayment of actual expenditures as in 1999/2000, 2000/01, and 2001/02) and contingent liabilities, such as guarantees. Financial losses of the state-owned enterprises were not consolidated with the state government's accounts, which therefore provided an incomplete picture of the underlying fiscal trend.

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The state legislature enacted a Fiscal Responsibility Act in May 2003, the third Indian state to do so. The Act set fiscal targets for reducing the budget fiscal deficit to 3% of GSDP and the revenue deficit to revenue receipts ratio to a level below 5% by March 31, 2008, and capped risk-weighted guarantees at 75% of revenue receipts of the previous year, or 7.5% of GSDP. The GoTN also signed a Memorandum of Understanding (MOU) with the GoI on the State’s Fiscal Reform Facility in September 2003, which set a path for sustained reduction in the ratio of the revenue deficit to revenue receipts.

Guided by the Fiscal Responsibility Act, the Government of Tamil Nadu developed its first medium-term fiscal program (MTFP), a five-year framework, which was envisioned to be an annual rolling document institutionalized into the budget formulation process. The first MTFP was presented to the state legislature in February 2004, along with the state’s budget for 2004/05. Subsequent MTFPs were envisioned to be presented with subsequent annual budgets, along with reports on performance against targets.

The MTFP explicitly incorporated important off-budget activities and other contingent liabilities into the multiyear adjustment framework. First, the accounts of the Tamil Nadu Electricity Board were consolidated with the Government’s budget to arrive at a consolidated deficit. Second, off-budget borrowing serviced by the Government of Tamil Nadu was integrated with the state’s public debt. Third, capital work executed from the Public Account but financed from off-budget borrowings through Public Deposit Accounts, thus distorting the fiscal deficit, were fully integrated within the fiscal framework. Fourth, comprehensive and robust estimation of accrued pension liabilities and emerging cash flow needs based on the inherent demographics of the workforce replaced ad hoc incremental budgeting.

Prudent management of guarantees is an essential part of the medium-term fiscal adjustment. The 2002/03 budget classified and reported guarantees by risk weight for the first time. The next step would be to establish an institutional framework for screening competing demands for the issue of guarantees while staying within the limits set by the Fiscal Responsibility Act.

The MTFP is underpinned by a continuation and deepening of taxation and expenditure reform, and reforming state-owned enterprises and cooperatives to reduce subsidies and liabilities. But recent decisions extending free power to all agriculturists, slashing power tariff to...
domestic consumers to pre-reform levels of 2001 (expected to cost government about Rs. 920 crore in 2004/05), withdrawal of PDS targeting (will raise food subsidy by about Rs. 130 crore in 2004/05), restoration of transport subsidy (student bus passes & concession fare will cost Rs. 125 crore in 2004/05), constitute reform setbacks. They bring into question the validity of the MTFP and the commitment of the government to fiscal reform.

**Reforming the taxation system.** The potential for substantially increasing the tax revenue in Tamil Nadu is limited for three reasons. First, Tamil Nadu's own tax revenue effort is already among the highest in Indian states. Second, India's Constitution places limitations on the taxation power of states. The fastest growth sector in Tamil Nadu is the services sector, taxation of which is reserved for the central Government. Third, successive central Finance Commissions have reduced the share of Tamil Nadu in the pool of net shareable central taxes, from 8 percent (Seventh Finance Commission) to 5.4 percent (Eleventh Finance Commission). The contribution of the share of central taxes to Tamil Nadu's revenue declined from 21 percent in 1992/93 to 15 percent in 2002/03.

There is, however, considerable scope to improve the efficiency, equity, and administration of the state tax system (Box 2.1). In particular, the state's sales tax (63 percent of the state's own revenue) consists of sales tax, entry tax, resale tax, additional tax, and surcharges, which imposes high effective tax on inputs with no rebates and results in a negative cascading impact on manufacturing costs. The entry tax on goods into local areas from outside Tamil Nadu negatively affects trade and investment. The relatively high stamp duty on immovable property encourages evasion and value under-reporting in property transactions. The tax administration imposes high compliance costs because of its lack of self-

### Box 2.1: Incidence, Effective and Efficiency Costs of the State's Sales Tax Regime

Some estimates based on tax data for 50 top commodities in 2002/03 indicate that the complex web of multiple layers of state sales taxes induces a number of equity, effectiveness, and efficiency problems.

The final effective tax burden varies widely across commodities and the distribution of the burden is not desirable. For example, some essential goods such as medicines and medical appliances, toothpaste and toothbrushes bear a relatively high tax burden (effective rates of the combined state sales taxes, including the Tamil Nadu general sales tax, additional sales tax, surcharges, and CST, are in the range of 9% and 18%, respectively), whereas gold and silver bear relatively low tax burden (subject to effective sales tax rate of just 1 percent).

On the other hand, the existing exemptions and leakages (through administration and valuation process) lead to huge revenue losses. The general sales tax revenues foregone-estimated as the product of the average general sales tax rate (or the ratio between the general sales tax collection and taxable turnover) and the difference between reported and taxable turnover-are high: 22% in 2002-03. As the calculations are based on the official tax returns data, the estimate of the revenue loss does not include any leakage attributable to evasion and avoidance, but is based simply on the statutory exemptions and leakage during the assessment.

The imposition of multiple taxes without an effective mechanism for offsetting the input taxes and especially the recent levy of the resale tax-risk the problem of cascading. A simple effective tax rate estimation confirms this risk. Inputs bear more than 30% of the total general sales tax collection. The effective rate of the general sales tax alone, on inputs-defined as the ratio between the tax on inputs and taxable turnover of inputs-is approximately 5.7%. The total general sales tax, additional sales tax, and surcharges on inputs account for almost 32 percent of the total collection, and the effective tax rate is 6.7%.

**Source:** Tamil Nadu: Improving Investment Climate, World Bank, 2004.
assessment for large businesses, lack of electronic filing, and protracted dispute resolution procedures, which encourage undesirable frequent contacts between businessmen and tax officials.

To provide an overall policy framework for reforming tax policy and administration, the Government established a Tax Reform and Revenue Augmentation Commission in June 2002, headed by the well-known Dr. Rajah Chelliah. The Government has begun implementing key recommendations of the Commission (e.g., the stamp duty on immovable property). The introduction of the VAT to replace the current sales tax system should resolve the main problems related to the state’s sales tax system. Tamil Nadu is at an advanced stage of preparing for the introduction of the VAT set for national introduction on April 1, 2005.

On the next important reform area, the Government of Tamil Nadu has reduced the stamp duty on immovable property to a uniform 6 percent, from 8 percent in urban areas and 7 percent in rural areas. The transfer duty on immovable property, which was set at a uniform 5 percent, has also been reduced to 2 percent. The effective stamp duty is hence a uniform 8 percent, down from 12-13 percent. To identify measures to maintain revenue neutrality following the rate change, the practice of duty avoidance and evasion schemes and the impact of the reduced rate on conveyance of immovable property on revenue collection will need to be reviewed. Reforms also need to be planned for other taxes and duties (such as stamp duties on other dutiable instruments) based on systematic review of these taxes, taking into consideration efficiency, equity, and collection costs.

Excise revenues are derived mainly from privilege fees on Indian-made foreign spirits, excise duties, and fees on liquor. The Tamil Nadu State Marketing Corporation has the exclusive right of wholesale and retail supply of Indian-made foreign spirits for the state and is responsible for collecting the excise duty. The overall tax burden on liquor is high but largely comparable with those in other states in India. Given that Tamil Nadu maintains a public monopoly responsible for collecting excise duty directly from a small number of distilleries, there is no evidence that the high effective tax rate induces widespread evasion that would put the revenues on the wrong side of the Laffer curve. Reforms could be envisaged regarding the calculation of excise duties, switching from a specific to an ad-valorem excise, following the Maharashtra example.

Entry taxes on motor vehicles and goods risk having an unintended negative impact on trade and investment. They hinder inter-state trade, induce a high-cost state economy, and negatively affect the competitiveness of Tamil Nadu as an investment location. As a revenue source, they are insignificant and are justified primarily as an additional means of fostering sales tax compliance. The business community in Tamil Nadu has asked that the entry taxation be abolished once the VAT is introduced. This request is fully justified.

Building on the ongoing efforts to improve the tax administration, a medium-term action plan is being formulated to reform the tax administration. It focuses on improving corporate planning, strengthening human resources, and restructuring the tax administration, moving it from focusing on enforcement to service-oriented compliance. Annex I has details of a suggested plan for improving Tamil Nadu’s Tax Administration.

**Improving non-tax revenue.** Revenue collection in Tamil Nadu relies primarily on the state’s own tax system (70 percent of total revenue). Another 15 percent of revenue comes from shared central taxes devolved to Tamil Nadu. Only 7 percent of total revenue is from non-tax revenue. Tamil
Nadu ranked low in non-tax revenue relative to 14 major Indian states (1985-2000). Some user charges (such as bus fare) do not go directly to the state’s treasury but are collected by state-owned enterprises, and regular revisions of these charges could reduce the required budgetary support. Although low non-tax revenue indicates the potential for increases, such decisions are frequently constrained by political difficulties.

Under the fiscal reform program, user charges were increased on a variety of services provided by the state and state-owned enterprises: bus fares increased by 27 percent; irrigation rates and water supply rates applicable to commercial consumers and to local bodies that meet infrastructure costs were increased; and sewerage costs for non-domestic connections have also increased. In addition, two revisions of power tariffs have been undertaken and a power tariff for agriculture was reintroduced after 12 years of free power (as of July 2004 to be compensated by the government budget to the power utility), hospital visiting fees and a charging system for use of diagnostic equipment have been introduced, and court fees have been increased. But in recent actions the state restored free power to agriculture and slashed power tariff to domestic consumers by 32-36%, restored free bus passes to students, withdrew hospital visiting fees and restored ex gratia payments to STU and Tamil Nadu Electricity Board (TNEB) employees at 1.67% (in addition to the bonus of 8.33%) besides announcing wage negotiations with the workers of these entities and restoration of 15 days earned leave encashment that was earlier suspended. These constitute a setback to cost recovery and restructuring initiatives. Further increases in user charges will therefore continue to be politically challenging.

Reforming the pension system and rationalizing salary expenditure. Tamil Nadu has the highest number of civil servants per hundred people of any major Indian state after Punjab: 2.13 compared with 1.4 for the country as a whole. While the roots of overstaffing can be traced to decisions made in the 1980s, its negative impact on the current salary and pension structure adds to the current fiscal stress. As a result of implementing in April 1998 the Sixth State Pay Commission, pension and salary growth accelerated and appropriated an ever-larger share of the state’s revenue in 1999/2000: 56 percent of the state’s revenue expenditure, 68 percent of the state’s total revenue, and 91 percent of the state’s own tax revenue. Worse, these shares underestimate real liabilities, as a liquidity crisis in 1999/2000 forced the Government to postpone sizable payments of salary and pension (Rs. 1,823 crore to employees who retired between January 1996 and March 1998) for five years. The present Government started to clear these dues in 2003/04.

To address the rapid growth of salaries and pensions, the most serious threat to fiscal sustainability, the Government adopted a number of measures. A Staff and Expenditure Reform Commission was established in December 2001 to systematically identify surplus positions, posts, functions and departments for redeployment and streamlining (Box 2.2). The Commission has identified about 85,000 surplus posts and 113,000 vacant positions, while 10 departments have been identified for closure. The Commission’s reports on 140 departments and agencies are under review.

A ban has been imposed on the creation of new posts and a freeze declared on the creation and filling of vacancies through direct or compassionate appointments, except for essential staff (teachers, health workers, police). In another move, 23,123 live posts (road gang workers and people’s welfare workers) were abolished. After the Commission’s review, the Government issued orders to abolish 40,500 surplus posts in vacant positions created by the hiring freeze. The remaining surplus posts are to
be abolished over the next few years mainly through attrition and redeployment of staff. The Government also rationalized employee compensation and benefits by withdrawing surrender leave encashment and the annual Pongal Bonus, and has delayed the announcement of additional Dearness Allowance installments (always with prospective effect). However, in a recent setback (post national elections) the Government decided to retain the services of 15,500 temporary employees who were recruited during a civil servants’ strike in 2003 making further employee restructuring efforts more difficult. The Government also carried out pension reform to reduce current and contingent pension liabilities: a defined contribution system for employees hired after April 1, 2003, has been introduced, the qualifying tenure of service required to receive full pensions has been increased by three years, and the basis for calculating eligible pensions was changed to the last 10 months average pay rather than the last drawn pay. The Government of Tamil Nadu has carried out a massive exercise to collect data and project pension liabilities and cash flows under the various retirement programs, not only for the state civil service but also for local bodies and economic growth and poverty alleviation in Tamil Nadu.

There are four key features of the SERC’s working that bear comment. First, the SERC experience is fundamentally an in-house assessment of redundancy, unlike the externally-driven assessments conducted by consultants supervised by the Administrative Reforms Commission (ARC) in Karnataka, the Institute of Public Administration in Punjab, and consultants in Orissa.

Second, the SERC reports, which focus on both the Secretariat and 140 field departments provides the most targeted identification of surplus posts in any state that has attempted such an exercise, far more pin-pointed than the externally-conducted analyses in Karnataka, Punjab, and Orissa, which have proven less useful in identifying opportunities for pruning staff. The criteria for regarding a post as surplus include: (a) assessing posts in relation to existing work norms, (b) establishing new work norms in the light of technological change, and a concomitant reduction in staff, (c) analyzing whether a department needs to perform a particular function at this time and adjusting staff size accordingly, and (d) reducing posts by promoting outsourcing across government.

The Commission pared about 23% of all Group A posts, which constitute only 1.7% of the core civil service (excluding non-pensionable employees); 12% of Group B posts (10.04% of core), 9% of Group C posts (75.3% of core), and 40% of Group D (13% of core). Staff cuts were thus highly disproportionate for Groups A and D and mildly so for Group B; Group C, including a large contingent of teachers, faced only a small cut relative to its share of the civil service.

Third, the process of formulating the reports was marked by extensive consultation. The SERC reviewed approximately 10 departments a month; for each department, the process involved an initial round of consultation with the Secretary and Departmental Heads (HoD’s), followed by intensive discussions with lower-level officials and unions, and a concluding wrap-up session with the Secretary.

Staff associations were asked to fill out a separate questionnaire asking them to evaluate the merits of the single-file system and level-jumping; identify areas for decentralization of authority within departments; re-evaluate work norms in the light of new technology; indicate areas of excess or inadequate staffing; and classify functions best done only by government, by government and NGO’s or the private sector together, and the private sector alone. Staff Associations were also asked to suggest ways of reducing administrative costs generally. The Commission received hundreds of suggestions on rationalization from the public via its website. The expert probing of the SERC Chairman in in-depth interviews with department officials, high and low-level, combined with data derived from the questionnaires, yielded inside information on redundant and/or vacant posts, and conferred legitimacy on the exercise.

major state-owned entities such as the Tamil Nadu Electricity Board and the State Transport Corporations. This has enabled a comprehensive and robust estimation of pension liabilities and emerging cash flow needs, which take into consideration the demographics of the workforce.

The Government of Tamil Nadu has already issued a Government Order establishing a new defined contribution scheme for all civil servants hired with the status of pensionable service after April 1, 2003. The Government of Tamil Nadu is looking to developments at the Government of India level, both for detailed parameters and rules and institutional arrangements (recordkeeping, investment policy). But given the relatively slow state of progress, it may be necessary to develop interim arrangements so that the new scheme can be implemented soon after the new entrants recruited since April 2003 will have passed through their probationary period and become eligible for pensionable service. The implications and potential costs of different options are being reviewed.

Rationalizing subsidies and improving targeting.
Direct subsidies were the third fastest growing revenue expenditure, next to pension and interest expenditure. The largest subsidy went to food (of which the rice subsidy accounts for 90 percent) distributed through the public distribution system (PDS). Food subsidies accounted for 67 percent of direct subsidies or 8.5 percent of the state's revenue in 2000/01. The PDS is probably the most important safety net program in India. A survey conducted by the Public Affairs Center shows that Tamil Nadu's PDS ranks first in the country on several parameters, including access, usage, and reliability. Tamil Nadu's PDS had universal coverage until 2002, with all 16 million families in the state entitled to the PDS.

Substantive PDS reform was undertaken from 2002 to 2003, but the reform has suffered a setback. Rice procurement by the state through the Tamil Nadu Civil Supplies Corporation has been replaced by purchases from the Food Corporation of India, saving milling and inventory costs and lowering the cost of purchase. Production incentives given by the state over the minimum support price set by the Government of India have been eliminated. About 4 million out of 16 million families chose to opt out of PDS rice through a self-selection scheme. Rice coupons were then introduced to reduce the number of households eligible for PDS rice further to 10.4 million. Income criteria to determine PDS eligibility-monthly household income of Rs.5,000, income tax and sales tax assesses-was introduced in 2003 for voluntary compliance. But both rice coupons and income targeting have been withdrawn by the GoTN after the national election in April-May 2004. The PDS coverage is likely to increase to 12 million and the food subsidy bill to Rs. 930 crore in 2004/05, which is below the maximum subsidy amount of Rs.1,540 crore incurred in 2000/01 but higher than the projected Rs. 768 crore in the MTFP.

Reforming public sector units and cooperatives.
Implicit subsidies and fiscal support to the public sector enterprises and cooperatives (through, for example, low user charges, interest subsidies, and loan write-offs) and guarantees to these entities have led to growing contingent liabilities. State transport units, with 120,000 employees and an accumulated loss of Rs.2,090 crore as of March 2002 (Rs. 2,166 crore as of March 31, 2004), accounted for about 70 percent of employment and 73 percent of accumulated losses of all public sector units in 2001/02. The 18 cooperative spinning mills and 16 cooperative sugar mills,

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9 The pension exercise is the largest among the Indian states the Bank has been working with. The quality and speed of data collection are impressive.
10 A well-known NGO in India.
employing 20,000 people, dominate the financial losses incurred by the cooperative sector. There are also nine public Statutory Boards formed under independent legislative acts, spanning from electricity to maritime transport to pollution control. The TNEB, accounts for 80 percent of employment of the nine Statutory Boards, and dominates the balance sheets.

The state’s strategy for reforming the state transport units (STUs) comprises improving internal efficiency, downsizing the work force, adjusting the fare structure, and implementing partial privatization. Public transport bus fare was increased by 27 percent and annual bonus and ex gratia payments to STUs employees were cut from about 20 percent to the statutory minimum of 8.33 percent. The crew-to-bus ratio has been reduced from 7.9 to 7.6. The STUs have been consolidated from 18 state transport units to 7 which is expected to result in a saving of 10 percent on overhead cost. As a result, the financial performance of the state transport units has improved somewhat though not consistently. In 2002/03, the STUs incurred a loss of Rs. 4 crore showing an improvement in performance, but in 2003/04 there appears to have been a slide in performance with a pre-audit loss figure of Rs. 32 crore. Further reform plans include: rationalizing the crew-to-bus ratio to reach a target level of 6.5, and implementing a phased program of privatizing 20 percent of routes.

The Government announced a policy decision to exit all manufacturing public sector undertakings (PSUs) and sick cooperative spinning and sugar mills, following the GoI framework and guidelines for Voluntary Retirement Scheme (VRS) prior to closure and divestment. To facilitate divestment, institutional mechanisms, the Cabinet Committee on Divestment and a high-powered Interdepartmental Committee on Divestment have been established. A legislative amendment to the Tamil Nadu Cooperative Societies Act, enabling sale of assets of sick cooperatives, has also been passed by the state legislature. All cooperative spinning/sugar mills identified for closure are sick mills.

Eight public sector undertakings, eleven out of eighteen cooperative spinning mills and two out of sixteen cooperative sugar mills have been closed. The VRS has been accepted by 8,426 employees. The VRS has also been accepted by 2,554 employees in twelve more public sector undertakings enabling restructuring of these entities. The Tamil Nadu Industrial Explosives Limited was chosen to be privatized first but progress has been slow. Counseling has been initiated for the retrenched employees.

The Tamil Nadu Electricity Board. The Tamil Nadu Electricity Board (TNEB), a state monopoly, is relatively efficient in the Indian context. With the second largest power market in India, per capita consumption of electricity in the state is 567 kilowatts a year (national average of 355 kilowatts). In 2001/02, 61 percent of the electricity was sold on a metered basis—much better than in other states (34 percent in Karnataka, 41 percent in Andhra Pradesh, 39 percent in Gujarat, and 47 percent in Maharashtra). Technical and distribution losses are about 18 percent, much lower than those in many other Indian states. The TNEB has an active enforcement system to penalize power theft. Collection efficiency has been consistently high (about 98 percent).

Yet financial losses rose steadily from 1997/98 to 2001/02. Earnings before interest, depreciation, tax, and amortizations (EBIDTA) turned negative in 1999/2000, reaching negative Rs. 1,225 crore in 2001/02 (Figure 2.1). The distress is attributed to increasing power purchases costs and increasing cross-subsidization. Sales to subsidized categories (residential, agriculture) grew rapidly while the subsidizing High Tension industrial sales remained stagnant with increasing dependence on self-generation. The state has a
2,475 megawatt captive generation capacity. From 1996/97 to 2002/03, the proportion of purchased power to total power input increased from 31 percent to 48 percent.

At the same time, the average cost of purchases increased from Rs.1 per kilowatt-hour to Rs.2.68 per kilowatt-hour, largely because of high-cost Independent Power Producers (IPPs). The severe droughts in 2001 and 2002 depleted cheaper hydro resources, forcing their replacement with more expensive thermal power.

The financial distress constrains the TNEB’s ability to make investments, resulting in generation shortage and uneven quality of supply. As in many other Indian states, long-term PPAs for contracting generation capacity have not worked well and have resulted in high IPP tariffs. In its recent tariff order, the Tamil Nadu Electricity Regulatory Commission directed the TNEB to explore options for reducing IPP tariffs to more reasonable levels.

A number of initial steps were undertaken from late 2001 to 2003. The Government made the Tamil Nadu Electricity Regulatory Commission functional in 2002. Two tariff adjustments—a 16.5 percent increase in December 2001 and a 13.5 percent increase in March 2003 (latter by the Commission)—have helped to reduce cross-subsidies and improve the financial health of the TNEB. All new agriculture consumers were metered from July 2002. The Government also brought onto its budget Rs. 1,962 crore of the TNEB’s past dues to central power utilities to clean up the TNEB’s balance sheet.

Reducing agriculture cross subsidies in the power sector has proven to be extremely difficult. If cross-subsidy issue is not addressed, then either the state budget would have to bear an increasingly larger subsidy burden or the tariff of subsidizing users (e.g., industrial and commercial users) would have to be increased. Increasing industrial power tariff, which is already high, would force more industrial and commercial consumers to leave the state utility grid, putting further pressure on the state utility’s finances.

When implementing the agriculture tariff set by the regulator in March 2003, to reduce the negative impact of the tariff on small and marginal farmers, the Government implemented a direct subsidy scheme for smallholders and marginal farmers (Rs.100 crore) and hut dwellers (Rs.14 crore), a significant experiment toward a direct and transparent subsidy system. Even then the bulk of the subsidy burden (about Rs. 3,500 crore) rested with the TNEB. Agriculture metering and the introduction of power sector tariff for agriculture became contentious political issues in Tamil Nadu during the May 2004 national elections. Following the elections, GoTN followed Andhra Pradesh in announcing...
free power to farmers thus reversing the nascent reforms. The Government also reversed its earlier 30% increase in the tariff for domestic consumers. The experimental direct subsidy to farmers was given up in favor of budget support to the TNEB for costs incurred towards free power to agriculture and hut dwellers (Rs. 114 crore) as well as subsidized power to domestic consumers.

The reversal in the tariff for domestic consumers will have a much larger immediate fiscal impact: of about Rs. 720 crore. With tariff increase unlikely in the next few years, given recent events, overall losses could exceed the reformist business plan by Rs. 923 crore in 2004/05 to Rs. 2,034 in 2006/07 under a conservative scenario. Under more aggressive assumptions, losses could be higher by Rs. 1,200 crore in 2004/05 climbing to Rs. 2,681 crore in 2006/07. This of course assumes there is no financing constraint. Budget support of this order to finance TNEB’s resource gap will strain fiscal recovery. Financing TNEB’s resource gap through state guaranteed borrowing would increase GoTN’s contingent liabilities and financing costs of TNEB besides the high opportunity cost that this involves in terms of resource misallocation. In any situation the financial recovery of TNEB is unlikely to be sustained, investments are likely to be constrained, and finances and service quality are likely to deteriorate. Further, in both scenarios, the consolidated fiscal deficit will be back at or above pre-reform levels, and productive spending will be crowded out by power subsidies.

The long-term financial sustainability of the power sector in Tamil Nadu, as in other Indian states, will require the formulation and implementation of a comprehensive reform program that addresses the requirements of India’s new Electricity Act 2003— including competition in the power sector and metering all un-metered consumers. But detailed implementation arrangement of the Act remains unclear in key aspects.

Institutional reform of, and restructuring requirements for, Tamil Nadu’s power sector need to be developed and implemented in accordance with the provisions of the National Electricity Act and the specific needs of the state. Key aspects to be addressed include the generation cost, the ability to attract sustainable private investment, and human resource requirements.

The experience of metering existing consumers in other states has generally been unsuccessful and will remain politically challenging in Tamil Nadu as well. A consensus is emerging that introducing metering of agriculture pump sets requires an integrated solution that incorporates water and power issues and demonstrates improved efficiency of pump sets and better delivery of paid-for services (power, irrigation, extension, post harvest marketing), resulting in higher farm incomes.

Improving public expenditure management. The Government of Tamil Nadu has initiated reforms of the systems and processes of budget formulation and execution. While the existing annual budget system is functional, reforms are needed to achieve the Government’s development objectives and to adapt the institutional arrangements to support the fiscal strategy. The key challenge is to ensure that a comprehensive resource framework and a medium-term perspective effectively guide the three objectives of budget management: aggregate fiscal discipline in line with the medium-term fiscal program, strategic policy decisions by the Government within the constraints of the fiscal program, and efficient use of public expenditure in government operations. In each of these areas, the Government of Tamil Nadu has initiated or proposed major actions.

The Tamil Nadu Fiscal Responsibility Act (FRA) lays the foundation for aggregate fiscal discipline
by emphasizing transparency and disclosure of the medium-term fiscal program with each budget. In addition to the required political commitment to the fiscal adjustment, credible medium-term fiscal planning will require strengthened government capacity to project revenue over a multiyear period, and key indicators such as the fiscal deficit will have to be made consistent with standard international practice to be fiscally transparent and to facilitate monitoring of fiscal trends. International experience suggests that fiscal responsibility legislation is neither essential nor sufficient for fiscal adjustment, but that it can be a useful institutional complement to fiscal policy reforms.

Performance in the four other Indian states that have so far passed FRAs (Karnataka, Kerala, Punjab, and Uttar Pradesh) has been mixed with different levels of ownership and commitment. More attention will be required both by government and by outside parties to comply with FRA provisions post-adoption.

To improve the strategic budgetary tradeoffs on policy initiatives, Tamil Nadu needs to substantially strengthen its upstream capacity for policy formulation. Government departments in Tamil Nadu prepare specific policy notes to set out government sectoral objectives and articulate how government expects to achieve its objectives through service delivery, financing, partnership, or regulation of private activity (Box 2.3). Such policy notes, appropriately strengthened in process and content, could form the basis for linking the government’s objectives in specific sectors with departmental budgetary preparation and financial requirements. This is necessary to ensure that well-crafted departmental policy proposals, together with their financial implications, are submitted for cabinet review and discussion during budget formulation. The establishment of a Policy Review Committee, to be chaired by the Development Commissioner, could provide leadership and focus to this key capacity-enhancing reform. The Policy Review Committee can rely on a network of public and private institutions to undertake public policy research and analysis. An appropriately staffed cell of the Planning and Development Department can be established to develop and maintain the network relationship with institutions.

Current processes for budget formulation in Tamil Nadu distinguish between existing expenditure commitments (Part I) and new expenditure commitments (Part II)—making them

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**Box 2.3: Policy Note on Demand No. 41: School Education, 2003/04**

The policy note begins with a clear statement of objectives—encompassing inputs and outputs, with an explicit indication of budget for 2003/04 of Rs. 4,203.8 crore, of which Rs. 3,946 crore is non-plan allocation and Rs. 257 crore is plan allocation. It identifies the "new schemes" under Part II, including various deferred maintenance items (repairs to office buildings, etc.) and a listing of recent accomplishments (number of vacant teacher positions filled, orders issued for village libraries, counseling system for teacher transfers, etc.). The principal thrust of the note, however, is covered by specific chapters for each topic—elementary education, secondary and higher secondary education, teacher training, etc. Under elementary education—the policy note cites the Compulsory Education Act of 1994/95 and identifies objectives (full enrollment, retention until eighth standard, quality education for learning competence, micro-level decentralized planning, and community participation). The structure of the policy note suggests an informational purpose rather than a document that seeks to make the case for a policy initiative or to justify a specific funding request. For the most part, it reports agreed objectives and indicates programs that are under way to achieve stated objectives with occasional discussion of financing being supplemented by central programs (such as the Education for All program).

*Source: GoTN's Budget Documents.*
extremely amenable to adaptation to improve cabinet decision-making on policy priorities within the medium-term fiscal program. The Standing Finance Committee of Cabinet can be made responsible for reviewing new policy and project commitments under Part II of the proposed budget and ensuring that priorities are funded within the agreed fiscal constraint. Current budget instructions require departments to submit multiyear budgets for both Part I and Part II. In subsequent years, the budget documentation needs to be improved to provide a clearer link between policy priorities and goals, budget allocations and performance.

The operational efficiency of government departments is a function, among other things, of the predictability of budgetary resource flows, appropriate incentives and managerial discretion for department and project managers, and periodic evaluations of the effectiveness of government programs. An earlier submission of the draft budget to the legislature can help bring budget approval closer to the start of the fiscal year, facilitating budget execution. A review of budget execution processes can help identify and address current weaknesses. Together with improvements in internal control systems, the Government should explore an increase the scope for virement within departmental budgets. The Government should also plan to constitute a standing Expenditure Review Committee to oversee time-bound implementation of expenditure rationalization recommendations of the Staff and Expenditure Reform Commission and to undertake rolling annual reviews of departments to identify unproductive programs and to rationalize and improve efficiency of existing programs.

**Strengthening financial accountability.** The framework for public financial accountability in Tamil Nadu is generally sound. Its strengths include the oversight role of legislature over public finances, regular compilation and timely preparation of monthly accounts and presentation of annual financial statements (usually within six months after close of accounts), and the constitutionally guaranteed independence and broad mandate of the Comptroller & Auditor General. Nevertheless, several areas need strengthening and enforcing to make the public financial accountability system effective and to support the objectives of the Government’s medium-term fiscal and governance reform program.

The need for reform is particularly evident in the area of budget execution procedures, including the weaknesses in internal controls and the need to eliminate or reduce reliance on Personal Deposit Accounts in the Public Accounts, which distort expenditure and the fiscal deficit. It is also necessary to modernize the existing computerized treasury systems with upgrading and networking, to improve the quality of internal audits, and to have more effective legislative oversight and timely responses and follow-up to audit observations.

The Government of Tamil Nadu has started classifying and reporting details of guarantees in the budget document with a risk rating of the guarantees. A committee headed by the Chief Secretary was formed to review and discuss the status of responses to audit observations in biyearly meetings.

The Government of Tamil Nadu has outlined an agenda for further strengthening financial management, and has prioritized the following actions from the year 2004/05 onwards.

- **Budget execution.** The Government intends to review budget execution procedures to identify systemic constraints to effective execution, and to define and implement appropriate remedies.

- **Internal control.** The Government intends to address and strengthen certain basic
financial management and internal controls that could affect the reliability of fiscal and financial information, improve the overall internal control environment, and reduce the risk of misuse of public funds. Proposed actions include taking stock of and formulating rules for write back, opening, and validity of the Personal Deposit Accounts in the Public Accounts. The Government also intends to develop measures to address key internal control issues such as reconciliation of accounts, reconciliation of loans and advances, timely submission of utilization certificates, and incentives for compliance.

- **Treasury.** Plans are to be drawn up and implemented to upgrade and network the computerized setup for the Treasury (including departments under the letter of credit system), and develop a financial management information system for departments. The plan would also address the need for extending computerization to drawing and disbursement offices to enable computerized bill preparation, recording, and control over commitments.

- **Internal Audit.** The Government of Tamil Nadu would create a working group to review the scope, coverage, and focus of existing internal audit function, with a view to moving toward a "risk-based" audit approach and to implementing the recommendations of the working group on a pilot basis.

- **External audit and legislative oversight.** To make the proceedings of the committee headed by the Chief Secretary more effective, a database of all the audit observations would be prepared to monitor and improve the responsiveness to the audit observations. One senior official within the finance department would be responsible for maintaining the database and following up on the audit responses.

### Initial Outcome of Fiscal Reform

This section reviews the initial outcome of the fiscal reform program. The projected adjustment path as prescribed by the MTFP is summarized in the next section, along with the implications to the adjustment of the recent reform reversals (see page no. 19).

**Revenue performance.** Tamil Nadu already has one of the highest own tax/GSDP ratios in India but the ratio had fallen to less than the level of 10% achieved in the early 1990s. The Government made significant efforts to increase the tax-to-GSDP ratio from 8.8% in 2001/02 to 9.4% in 2003/04. Buoyancy in sales tax revenue was restored, with near 14.5% average growth in 2002/03 and 2003/04. The state’s own annual incremental revenue almost trebled from Rs.538 crore in 2001/02 to Rs.1,561 crore in 2002/03 and Rs. 1,603 crore in 2003/04.

**Expenditure composition.** The composition of recurrent expenditure improved, with a significant narrowing of the gap between revenue expenditure and revenue receipts. Most notably, salaries and pensions as share of the state’s own tax revenue was reduced from a peak of 100% in 1999/00 to 71% in 2003/04, and as a share of revenue expenditure, reduced from 56% to 45% over the same period. The food subsidy was reduced from a high of Rs. 1,540 crore (7.3% of revenue expenditure) in 2000/01 to Rs.800 crore (3.2% of revenue expenditure) in 2003/04. Non-wage O&M as a share of revenue expenditure declined from 9.3% in 1999/00 to 8% in 2001/02, but rose back up to 9.9% in 2003/04. Tamil Nadu’s outstanding small savings debt stock as of March 31, 2002, with interest rates above 13% was Rs.4,400 crore, or about 12% of debt stock. Over 2002/03 and 2003/04, GtN swapped Rs. 3,100 crore of small savings debt under the GoI debt swap scheme. The remaining
small savings debt stock has been swapped in 2004/05. Annual interest savings will be over Rs. 200 crore. Consequently, interest expenditure has held steady at 20% of revenue receipts in 2002/03 and 2003/04. In addition, GoTN repaid about Rs. 700 crore to NABARD and about Rs. 500 crore in off budget borrowing in 2004/05.

**Budget deficit improves.** The impact of the fiscal adjustment program has been impressive. While the revenue (current) deficit declined from 2.1% of Gross State Domestic Product (GSDP) in 2000/01 to 0.9% of GSDP in 2003/04 and 2004/05(RE), the fiscal deficit declined from 4% of GSDP to 2.4% of GSDP in 2003/04 but has risen to 2.9% in 2004/05(RE). The state also achieved a primary surplus of 0.3% of GSDP in 2003/04 as compared to a deficit of -2.5% of GSDP in 1999/00. But an attempt to boost capital outlay by almost 22% over budgeted estimates in 2004/05(RE) will turn the primary surplus of 2003/04 to a small deficit of 0.3% in 2004/05(RE). It remains to be seen whether the state is able to spend as much by the fiscal year end as the higher outlay is unprecedented.

**Consolidated fiscal deficit performance.** A key objective of fiscal adjustment was cleaning up of accumulated arrears from prior years. A large amount of arrears, Rs. 3,062 crore equaling to 2% of GSDP, was cleared in 2002/03, including Rs.1,100 crore arrears from 2001/02, and the securitization of Rs.1,962 crore of dues to central electricity utilities by the Tamil Nadu Electricity Board. There are pension arrears of Rs. 1,000 crore from 1999/00 when the previous Government postponed these payments for five years due to a liquidity crisis. These arrears are included in the MTFP for clearance by paying Rs. 2,500 crore, Rs.300 crore and Rs.450 crore over three years from 2003/04 to 2005/06 although their actual clearance can take a little longer. Despite clearing up the arrears, the consolidated fiscal deficit was reduced from a peak of 6.7% of GSDP in 1999/00 to 4.8% in 2002/03 (Table 2.1). The close to two percentage point reduction from 1999/00 to 2002/03 was largely attributed to an increase in the ratio of the state’s own tax revenue to GSDP (from 8.6% in 1999/00 to 9.3% in 2002/03), and a reduction...

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**Source:** GoTN’s Budget documents and TNEB’s accounts.

**Note:**
- Deficits in 2000/01 and 2001/02 were lower due to accumulation of arrears.
- Data for 2002/03 includes clearance of arrears equal to 2% of GSDP.
- Pension arrears in 1999/00 are included for clearance in 2003/04, 2004/05 and 2005/06, respectively.

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11 The consolidated fiscal deficit of 5.8% in 2000/01 and 5.2% in 2001/02 underestimated real levels owing to accumulation of (non-pension) arrears: Rs.2, 345 crore (1.7% of GSDP) in 2000/01 and Rs.3, 062 crore (2% of GSDP) in 2001/02.
in the ratio of salaries to GSDP (from 6.5% in 1999/00 to 5.2% in 2002/03). Unfortunately, capital outlay and net lending suffered a reduction equaling to 0.4% of GSDP (due largely to a lack of financing and implementation capacity). The consolidated fiscal deficit is estimated to have decreased to about 3.8% of GSDP in 2003/04 based on estimates for TNEB as against the MTFP target of 4.8% of GSDP for the year.

The financial performance of the Tamil Nadu Electricity Board improved during the period 2001/02 to 2003/04. TNEB’s EBIDTA is estimated to have decreased from negative Rs. 1,207 crore in 2001/02 to negative Rs. 537 crore in 2002/03. The net loss before subsidy is estimated to have been reduced from Rs. 1,854 crore to Rs. 1,253 crore over the same period. The financial performance of the state transport units (STUs) also improved, with net loss reduced by 98.6% between 1999/00 and 2002/03. But failure to revise transport fares since December 2001 has meant that the momentum of improvement in financial performance has been lost. Consequently, the STUs net loss increased from Rs. 4 crore at the end of 2002/03 to Rs. 32 crore at the end of 2003/04 (pre-audit).

Guarantees outstanding were 6% of GSDP in 2003/04, below the ceiling of 10% of GSDP (un-weighted guarantees) set by the Fiscal Responsibility Act (also lower than, for example, Andhra Pradesh at 10%). The Government for the first time classified guarantees under five risk categories (from very high risk to nil risk) as per the guidelines issued by the Reserve Bank of India, and made the information public via the 2003/04 budget. The risk-weighted guarantees (Rs. 3,362 crore) amounted to about 2% of GSDP in 2003/04. A guarantee redemption fund along the lines recommended by the Reserve Bank of India has been established. The Government also intends to institutionalize the process of evaluating requests for guarantees.

The GoTN signed up to the Fiscal Reforms Facility of Government of India in 2003. As per the Memorandum of Understanding, GoTN was required to achieve a Revenue Deficit to Revenue Receipts ratio of 17.4% in 2003/04. GoTN instead has achieved a major improvement over the target by achieving a ratio of 6.5%. The Twelfth Finance Commission (TFC) has fixed Tamil Nadu’s share in the total divisible pool of central taxes at 5.305% as opposed to the prevailing 5.385%, a marginal decrease. But states’ share in the centre’s divisible tax pool has been increased from 29.5% to 30.5%, keeping the effective share of Tamil Nadu unchanged at 1.6% of central taxes during 2005/06-2009/10. The total devolution of central taxes to Tamil Nadu over the five year period is estimated by the TFC at Rs. 32,553 crore. The TFC has also recommended debt relief to the states in the form of restructuring of all central loans with state governments as of March 31, 2004 outstanding as of March 31st, 2005. The loans will be consolidated and rescheduled at 7.5% interest rate repayable over twenty years. This has been made conditional on states’ enacting Fiscal Responsibility Legislation, which Tamil Nadu government has already enacted making it eligible straightway. As a result, Rs. 6,872 crore of

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12 The finances of the state transport units have not been incorporated into the consolidated fiscal deficit. The Bank’s work on states’ fiscal reform has focused so far on incorporating the finances of the power sector into the consolidated fiscal deficit.

13 The risk weights used are as follows: 100% risk weight assigned to the very high risk category, 75% to the high risk category, 50% to the medium risk category, and 25% to the low risk category. The nil risk category used by the government is treated as off-budget borrowing.
outstanding central loans on Tamil Nadu government’s books will be restructured. The interest gain is estimated at Rs. 1,195 crore in Tamil Nadu’s case over the period 2005/10. The TFC has also recommended debt write-off linked to reduction in the revenue deficit of the state government. Under the scheme, a certain proportion of repayment of rescheduled debt will be written off by Government of India over the period 2005/06 to 2009/10. The quantum of write-off is linked to the absolute amount of reduction in the revenue deficit each year with the ultimate objective of eliminating the revenue deficit by 2008/09. Tamil Nadu can benefit to the extent of Rs. 1,718 crore in debt write-offs under the scheme. Tamil Nadu also gets Rs. 1,214 crore in grants for maintenance of roads and bridges, Rs. 242 crore for maintenance of public buildings, Rs. 30 crore for forests, Rs. 40 crore for Heritage conservation, Rs. 250 crore for development of urban areas and Rs. 50 crore for sea erosion over 2005/06 to 2009/10.

GoTN’s MTFP has been revised along with the 2005/06 budget and accelerates the fiscal adjustment path when compared to the first MTFP. The revised MTFP builds in the TFC’s award conservatively as opposed to the actual award thereby providing a revenue cushion. The state benefits from TFC’s debt restructuring and debt write-offs while it is not affected by the abolition of central lending in support of state plans. However, to take advantage of the debt write-off the state has to stay on track to eliminate the revenue deficit by 2008/09 which is also the state’s revised MTFP target. If the GoTN maintains its current rate of progress, it is well poised to take full advantage of the TFC’s recommendations. The costs of policy reversals of 2003/04 have thus been absorbed in 2005/06 but pose an underlying medium term fiscal threat unless effectively addressed.

Medium-Term Adjustment Path

Consolidated fiscal deficit. The medium-term adjustment path under the first MTFP (2003/04-2008/09), which was tabled in the state legislature on February 11, 2004, was predicated on maintaining an increasing own revenue effort progressing from 10.2% of GSDP in 2002/03 to 10.4% in 2008/09 with the state’s own tax revenue improving from 9.3% of GSDP in 2002/03 to 9.8% in 2008/09 and further reorienting expenditure from salaries, pensions, and subsidies to non-wage O&M and capital investments, while stabilizing the consolidated fiscal deficit (see Table 2.2) to achieve a targeted real GSDP growth rate of 6% by 2008/09.14

The reversal of some reforms—PDS, bus travel concessions and electricity tariff after national elections in May have resulted in mid year expenditure of Rs. 1,000 crore. Additional expenditure of Rs. 650 crore was provided for in supplementary budgets increasing expenditure in 2004/05 to about Rs. 1,650 crore over the budgeted estimates (about 5% of projected expenditure in 2004/05). But lower expenditure under salaries and pensions of Rs. 1,500 crore in the 2004/05(RE) as compared to the budget estimates and stronger than projected revenue growth has meant that the fiscal deficit in 2004/05(RE) is projected to be lower at

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14 The MTFP was drawn up by the Government using 2003/04 (revised estimates) as the base. Subsequently, higher GoI devolution in March 2004 and savings under salaries and pensions and lower capital outlay resulted in the state exceeding the MTFP projections for 2003/04. With revised estimates for 2004/05 available to government and taking into account the impact of policy changes, the TNEB’s accounts for 2003/04 and 2004/05, the salary cost of 15,500 new hires, the Twelfth Finance Commission’s award, revised GSDP growth projections etc. the first MTFP has been updated along with the budget for fiscal 2005/06. However, it is useful to look in detail at the first MTFP as this was the state’s first effort at fiscal projections and formed the basis for budget 2004/05.
Rs. 5,447 crore (3% of GSDP) as compared to the budgeted Rs. 6,921 crore (3.8% of GSDP). The lower fiscal deficit also builds in higher capital outlay and non-wage operations and maintenance expenditure of Rs. 1,100 crore as compared to the budget. As it stands, the increase in subsidy expenditure implies little threat to achieving the MTFP targets in the near term. But an opportunity is being lost of trying to correct resource misallocation and thereby decreasing underlying fiscal risks on the expenditure side.

Revenue performance. The ratio of revenue to GSDP was projected to increase from 13.3% in 2002/03 to 13.7% by 2007/08 in the first MTFP. The scope for increase in the tax ratio is constrained: by the already high tax effort in Tamil Nadu; the Constitutional restriction on state taxes to certain types and activities (particularly the state's inability in taxing the bulk of the fast growing services sector), the secular decline in Tamil Nadu's share in shared taxes devolved by the central government, the relatively slower GSDP growth in Tamil Nadu in recent times and the perceived political difficulty of substantial increases in user charges.

Expenditure composition. The share of non-wage O&M and capital outlays and net lending to GSDP is projected to rise from 2.9% in 2002/03 to 3.6% in 2008/09 in the first MTFP, owing largely to the projected decline in the share of salaries (from 5.2% of GSDP to 4.3%) and food subsidies (from 0.8% of GSDP to 0.3%) over the same period. However, reversal in policy reforms pertaining to subsidies (see page no. 19) may make expenditure adjustment relatively slow. It is not certain now whether the GoTN can undertake higher non-wage O&M and capital outlay without raising the fiscal deficit given the fiscal cost of the new policy choices. The decline in the share of salaries is to come from a combination of two factors: the net attrition of 2.8% per year

15 Four broad sets of factors have additionally helped the state meet the challenge of the additional expenditure: (i) salaries and pensions have remained virtually flat in nominal terms in 2002/03 and 2003/04 (ii) the government expects conservatively to realize Rs. 1,500 crore of savings under salaries and pensions expenditure as compared to the budget in 2004/05, (iii) interest expenditure savings consequent to debt restructuring in 2004/05 and (iv) revenues have been growing well during the fiscal year 2004/05 exceeding the Budget projections (15% over 2003/04 as opposed to annual 3% in the MTFP).
during the MTFP period (which are explained by the projected retirement patterns and hiring freeze) and the slower growth in the cost of living indexation of wages (i.e., dearness allowances).

**Priority development expenditure.** The first MTFP projected an increase in development expenditure (capital outlays and non-wage O&M) in priority infrastructure and social sectors (roads, rural water supply and sanitation, irrigation, elementary education (ages 6-14), nutrition and health). However, the fiscal costs of the policy reversals would shrink the resource space originally envisioned in the MTFP to make the desired expenditure adjustment.

Since about 80% of total expenditure is inflexible in nature (salaries, pensions, interest, subsidies and transfers), reform will have to target these heads of expenditure if resources are to be found for non-wage O&M and capital outlay without expanding the fiscal deficit. The long-term economic growth consequences of poor expenditure composition can be costly. The ability to increase social expenditure in critical areas such as education, health, water supply and sanitation, and nutrition may be affected. To put the Rs. 1,100 crore expenditure on annual power subsidy in perspective: the state spends about Rs. 1,400 crore only (4% of total expenditure) on the entire health sector and Rs. 750 crore (3% of total expenditure) on water supply and sanitation. The higher subsidy burden therefore represents a lost opportunity to improve social outcomes.

Pension reform (see page no. 24) has slowed growth of pension liabilities-reducing the implicit pension debt by 7% of GSDP. However, it is not realistic to expect reduction in pension expenditure in the short to medium term. This is mainly due to the long-term nature of pension policies, the acquired rights of existing employees, the aging civil service which, measured by per hundred population, is larger than all other Indian states except Punjab, and the need for the Government to contribute to the new defined contribution scheme.

**Revised MTFP.** The MTFP has been revised to reflect changes in policy, TFC’s award, changes in underlying economic growth scenario and builds on the 2004/05(RE). The revenue growth assumptions are conservative. For instance in 2005/06, tax devolution to the state from the centre has been budgeted by the centre at Rs. 5,041 crore as compared to Rs. 4,407 crore in the first MTFP, a gain of Rs. 634 crore if realized. The GoTN in its 2005/06 budget has gone along with a more conservative assumption of Rs. 4,672 crore, thus providing an inbuilt revenue cushion. The buoyancy of Sales tax is assumed at 1.05 from 2006/07 onwards; state excise growth at 3.5% per annum, vehicles tax at 8% per annum and stamp duty at 5% per annum. The revised nominal GSDP growth assumptions although higher than the first MTFP is still an annual average 10.4%. The revised MTFP targets revenue surplus in 2008/09 as against a marginal revenue deficit in the first MTFP. The fiscal deficit is to be reduced to 3% of GSDP by 2005/06 as against the TFC’s requirement of doing so by 2008/09. The revised fiscal targets are shown in Table 2.3.

**Fiscal Sustainability and Risks**

If the fiscal reform and MTFP are broadly on track, Tamil Nadu’s debt stock is expected to stabilize around 31% of GSDP in 2005/06, a level below that in many other Indian states. However, due to fiscal cost of recent policy reversals, the debt to GSDP ratio may increase from 31% of GSDP in 2004/05 to 32.3% of GSDP by 2008/09.

Tamil Nadu’s long-term fiscal sustainability will depend critically on two factors: The first is the evolution of key national macroeconomic variables-real interest rates on government
borrowing, inflation rate, and actual devolution of the center's shared taxes. The second factor consists of the evolution of two key variables—the state's economic growth and the primary deficit—that will depend largely on the policies and reforms of the state government. The central government can still influence these two key variables through for example: tax devolution policy, the Pay Commission, and policies of a concurrent nature affecting economic growth (e.g., labor market reform and bankruptcy procedures). To stabilize the debt-to-GSDP ratio over the long term, the government will need to implement reform measures that stimulate economic growth, eliminate primary deficit, or lower the effective interest cost of borrowing—or all.

There are significant risks to fiscal adjustment across Indian states; Tamil Nadu is no exception. These risks are:

- Political resistance to adjustment. Correction of the distortions and fiscal excesses of several decades entails large short-term costs. These affect many vested interests and are often met with strong resistance. The resistance typically intensifies near and during elections. Prior to the national elections in April-May 2004, the political leadership had provided strong support for reform. However, after the electoral loss some critical reforms were rolled back.

- A key challenge in fiscal adjustment is the perceived political difficulty of increasing user charges. This is amply illustrated by the difficulty of pricing power supply to agriculture. Providing increasing budgetary support would derail fiscal recovery. Financing the deficit through arrears or guaranteed-backed borrowing would increase the government's contingent liabilities.

- Unexpected macroeconomic shocks could threaten Tamil Nadu's fiscal sustainability. India's large fiscal imbalances could pose a threat to sustained economic growth. Slower growth and high fiscal deficits may translate into higher borrowing requirements but also put pressure on interest rates on government borrowing. This would negatively affect the ongoing debt restructuring efforts at the state level, hence the trajectory of debt sustainability. Since interest and real growth rates tend to be negatively correlated, it is very likely that if interest rates start rising, economic growth will decline, resulting in a rise in the debt-to-GSDP ratio unless fiscal policy is adjusted. For instance debt dynamics modeling indicates, the combination of rising nominal interest rates (say between 11% and 14%) and economic slowdown (to 3%) implies that the government will have to run surpluses in the range of

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Table 2.3: Primary, Revenue, Fiscal and Consolidated Deficit as a Percent of GSDP Under Tamil Nadu's revised MTFP (March, 2005)

<table>
<thead>
<tr>
<th></th>
<th>2003/04*</th>
<th>2004/05(RE)</th>
<th>2005/06(BE)</th>
<th>2006/07</th>
<th>2007/08</th>
<th>2008/09</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Deficit</td>
<td>0.3</td>
<td>-0.3</td>
<td>-0.5</td>
<td>-0.2</td>
<td>0.1</td>
<td>0.4</td>
</tr>
<tr>
<td>Revenue Deficit</td>
<td>-0.9</td>
<td>-0.9</td>
<td>-0.7</td>
<td>-0.6</td>
<td>-0.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Fiscal Deficit</td>
<td>-2.4</td>
<td>-2.9</td>
<td>-3.0</td>
<td>-2.6</td>
<td>-2.2</td>
<td>-1.9</td>
</tr>
<tr>
<td>Consolidated Fiscal Deficit</td>
<td>-3.8</td>
<td>-3.9</td>
<td>-4.2</td>
<td>-3.5</td>
<td>-2.7</td>
<td>-2.3</td>
</tr>
</tbody>
</table>

Source: GoTNs MTFP, Budget Speech 2005/06.
* Accounts, positive sign indicates surplus.
0.9-1.9% of GSDP in order to avoid increasing the debt-to-GSDP ratio beyond 35%.\(^\text{16}\)

- A decline in central government revenue transfer poses another risk. Successive federal Finance Commissions have reduced the percentage share of Tamil Nadu in the pool of net shareable central taxes, and the contribution of the share of central taxes to Tamil Nadu’s revenue declined from 21% in 1992/93 to 15% in 2002/03. The TFC’s award will be a determinant of the pace of fiscal adjustment at the state level. Central transfers to states (both as share of revenue and GDP) have fallen over time because of decrease in the revenue to GDP ratio of the GoI (Box 2.4). Further tax sharing is necessary to reduce vertical imbalances between expenditure responsibilities of states and their revenue powers and to address the revenue concerns of relatively better-off states. For example, the GoI can assign the right to states to tax a larger share of services and raise the constitutional ceiling on the professional tax. If and when the central government reduces or abolishes the Central Sales Tax, Tamil Nadu, as an exporting state, will lose tax revenue, and it is important that it have other sources available to it as compensation. Moreover, introduction of VAT (from April 1, 2005) should be on the basis of floor rather than harmonized rates, so that states like Tamil Nadu do not lose revenue as a result. Any shortfall in revenue due to VAT introduction could jeopardize Tamil Nadu’s medium-term fiscal program.

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**Box 2.4: Central Transfers to States have fallen**

As Figure 2.2 shows, central transfers have fallen over the last two decades largely because GoI revenue has fallen as a percentage of GDP, and to a lesser extent because there has been a decline in grants to the states as a percentage of central (gross) revenue. In the last few years, stronger revenue growth, and an increased share going to the states have helped reverse the long-term decline in GoI transfers to states. However, transfers are yet to reach the 5% of GDP level last seen in the early nineties.

**Figure 2.2: Trends in GoI revenues and Transfers to States**


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\(^{16}\) Details of the model are presented in the report Tamil Nadu: Fiscal Reform and Sustainability, World Bank (2004).
External shocks are a major source of risk to fiscal adjustment. Tamil Nadu's agriculture is vulnerable to periodic droughts due to its dependency on rainfall. More frequent than in the recent past, three annual droughts including the unprecedented century's worst statewide drought in 2002, led to an annual average of -3.9% growth during 1999/00-2002/03 compared with an annual average of 4.5% in the previous nine years. The droughts have greatly contributed to the slowdown in economic growth as well as the financial deterioration of the power sector in 2001 and the slower recovery in 2002, notwithstanding tariff adjustments. Drought(s) during the medium-term adjustment period could seriously affect economic growth (and hence tax collection) and the TNEB.
Improving Investment Climate for Manufacturing and Services
Fiscal reform must be complemented with a strong program to improve investment climate for accelerating economic growth and meeting the poverty reduction objective. The slowdown in economic growth in Tamil Nadu since the late 1990s and the structural impediments to faster economic growth would affect the pace of poverty reduction. The debt dynamics analysis underscores the importance of accelerating economic growth to achieve fiscal correction and sustainability. Faster economic growth positively influences not only debt sustainability but also employment and income generation, facilitating a larger distribution of reform gains.

Cross-country evidence has demonstrated a strong link between investment climate and growth. There could be considerable growth gains from improvement in investment climate in Tamil Nadu. Investment climate influences the expected returns and flow of foreign and domestic investment to a country or a location. In addition to macroeconomic policy, political stability and national policy towards foreign trade and investment, investment climate comprises of two critical factors: efficacy and transparency of regulatory framework for factor markets (labor, capital and land), for taxation policy and administration as well as for starting or exiting a business; and quality and quantity of available physical and financial infrastructure. Findings from the investment climate surveys in Tamil Nadu suggest that cumbersome and excessive regulation and infrastructure bottlenecks are major or serious constraints to growth. Accelerating economic growth will

17 41% of respondents in a World Bank/CII survey identified infrastructure as a severe bottleneck to improving the investment climate as compared to 25% in Gujarat. 47% felt power was a severe bottleneck, 43% felt transport was a bottleneck (second highest after Karnataka's 50%). Senior management in the survey reported spending 13% of their time dealing with regulations as opposed to say Haryana 10%. Tamil Nadu's manufacturing establishments reported an average of 11 official inspections a year as compared to 5 in Maharashtra and 6 in Karnataka. 14% of respondents (second highest after Gujarat's 21%) in Tamil Nadu felt constrained by overstaffing. 42% respondents reported corruption as a growth bottleneck better than Karnataka's 65% but worse than Andhra Pradesh's 10%.

require sound policy, institutions and infrastructure development to support private sector development.

Priority reforms concern labor market flexibility, a more responsive urban land supply system, more efficient tax policy and administration, streamlining regulations over entry, exit and operation, power sector reform and scaling up PPP for sustainable infrastructure development. Several important issues are exclusively or largely within the purview of the central government: labor reforms, the introduction of VAT, exit policy and bankruptcy procedures, and key infrastructure such as national highways, international air markets, major ports and rails systems. Within the federal framework, Tamil Nadu can explore reform opportunities.

**Removing Regulatory Burdens**

The regulatory framework is broadly understood to include the following three areas: factor market regulations, i.e., regulations of labor, capital, and land markets; tax and customs administration; and regulations of entry, exit and operation through regulation requirements and bankruptcy laws. Tamil Nadu has made reform efforts to improve the regulatory environment for the private sector such as the entry regulation for larger investment projects and regulation and streamlining regulations over compliance with labor regulations, but the regulatory environment generally continues to be complex. Many of the issues such as labor regulations, indirect tax, exit and bankruptcy procedures are largely within the purview of the central government.

**Labor market rigidity.** Labor market restriction on hiring and retrenching workers is one of the greatest challenges of doing business in India, according to the Global Competitiveness Report. India ranks 73rd of 75 countries. Rigid labor regulations have prevented Tamil Nadu from unleashing its full potential in labor productivity. Tamil Nadu is known for its good industrial relations and its highly educated, hard working and a disciplined labor force.

There are three main issues with labor legislations. The national Contract Labor Act 1970 restricts the hiring of contract labor. Any firm employing more than 100 employees must seek official permission for retrenchment or closure based on the national Industrial Disputes Act of 1947. The regulatory maze is complex, leading to high compliance cost and rent-seeking. There are 23 Union Acts and seven State Acts and Rules which are enforced by the Labor Department in Tamil Nadu. For each of these subjects there are different enactments by the center as well as implementing rules by the state. Many regulations are excessive and outdated (e.g., no overlapping of shifts, capping of overtime, official permission required for working on Sunday or holidays, specified number of food cafeterias, and over 60 types of minimum wages).

Rigid labor regulations deter greater employment generation. Stringent labor institutions tend to benefit a narrow segment of the population comprising the organized and unionized labor, intermediaries in the labor market, and corrupt officials, at the expense of a much larger segment of the labor force comprising the unemployed, those employed in the unorganized sector, and/or agricultural laborers who are seeking jobs in the organized industrial sector.

Labor regulations are largely within the purview of the central government. Nonetheless, within the federal framework, Tamil Nadu can explore ways to rationalize and consolidate implementing rules concerning the legal framework governing labor and statutory compliance requirements to create elbow room for contractual labor relationship and for easing threshold for retrenchment. The experience of Maharashtra and Andhra Pradesh in attempting a more
flexible interpretation of the central regulations may be of relevance to Tamil Nadu.

**Constraints in finance.** The issues of access to and cost of finance are at the purview of the central government, thus affecting all states. The key obstacles are high interest costs, collateral requirements, and burdensome paperwork. Recent downward trend in interest rates has been a factor responsible for revival of industrial growth. India's Small and Medium Enterprises (SME) sector still faces a relatively high cost of capital, owing to market and policy failures. There is an adverse selection in the credit appraisal process for SMEs, and interest rate premium for the higher transactions costs in dealing with small borrowers, the lack of sufficient credit information on these firms, their frequent inability to provide collateral, problems in collecting collateral (typically land/property) from small borrowers due to the lack of updated land/property records and the uncertainty surrounding land ownership, resulting in higher costs of default and contract enforcement.

**Urban land market constraints.** Urban land markets play a critical role in urban infrastructure. They provide the physical space for industrial, commercial and residential development as well as providing rights of ways for critical infrastructure systems such as roads, transit, water and sanitation and power networks. Significant and growing demand for urban land requires an efficient land delivery system, effective land zoning and a regulatory process for infrastructure and housing development review and permission. Rapid urbanization and demographic growth—from 19 million urban population to 27 million in the 1990s in Tamil Nadu—generate significant demands for urban land (Table 3.1). In order for cities to grow, either agricultural land at the periphery or vacant and underutilized land in urban areas must be developed.

The initial assessment found the following systemic weaknesses in urban land market in Tamil Nadu: Master plan designations in the absence of complementary incentives and measures make the supply of land for development inefficient; land acquisition and project development is complex, time consuming and expensive; obtaining permission and license for building construction industry is complex and time consuming; floor space Indices (FSI) are overly restrictive; over-designed subdivision regulations exacerbate the effects of low FSI; rent control, though not enforced for all buildings, also limits supply by discouraging owners from redeveloping properties to more intensive uses; taxes on land transfers are high comparing with international practices; and considerable land across cities held by government agencies is immobilized. These systemic weaknesses have led to more expensive facilities and housing than

<table>
<thead>
<tr>
<th>Metropolitan Area</th>
<th>Annual Projected Population growth</th>
<th>Annual Employment growth</th>
<th>Annual Projected Urban Land Requirements (hectares)</th>
<th>Annual Projected Industrial Land Requirements (hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chennai (1991-2011)</td>
<td>180,000</td>
<td>24,400</td>
<td>1,900</td>
<td>250</td>
</tr>
<tr>
<td>Coimbatore (1991-2001)</td>
<td>46,000</td>
<td>17,600</td>
<td>600</td>
<td>160</td>
</tr>
<tr>
<td>Tirupur (2001-2021)</td>
<td>16,800</td>
<td>17,000</td>
<td>420</td>
<td>200</td>
</tr>
</tbody>
</table>

*Note:* Data from the master plans of the three cities.
necessary, promoting urban sprawl, and led to 1.3% lost GDP per year for India.

Urban land issues are within the purview of the state government. It is important to rationalize regulations on urban land zoning and development controls, and project approval and land acquisition processes, and develop a more effective planning and management system to facilitate infrastructure development. As a first step to prepare for reforms, the Government of Tamil Nadu is undertaking a comprehensive urban land audit in Chennai, in collaboration with the private sector and an academic institution and planned to extend the audit to secondary cities.

Constraints in the sales tax system. While the Tamil Nadu sales tax system generally is buoyant and the state has one of the highest own tax effort, it has a number of features which have a negative impact on the investment climate and long-term growth. The existing sales tax regime, the main source of Tamil Nadu's own revenues, is inefficient with multiple rates, non-standard classification of goods, and concentration of taxation on certain sectors. It has a relatively high tax burden on inputs, with the effective tax rate on inputs at 6.7% and taxation on inputs accounting for 32% of the total collection. Figure 3.1 depicts effective tax rates in 2002/03 for select commodities. The complex structure induces high compliance costs, while the frequent ad-hoc changes in the tax regime generate uncertainty for businesses.

The tax on entry of goods into local areas, combined with the still restrictive trade policy of the central government, impact negatively on trade and investment. The tax is cascading on input imports, and the concession rate and offsetting are limited and nontransparent. The levy of entry tax on certain inputs currently not produced in the state also leads to higher cost of production and may thereby divert investment from Tamil Nadu to other states. High stamp duty on conveyance of immovable property-higher than that in many other countries, combined with an unreliable property valuation system, result in high transaction costs, "lock in" effect of less efficient real estate transactions, under reporting of transactions, and administrative and judicial disputes. Recently, as part of tax reform in Tamil Nadu, the effective stamp duty has been reduced to a uniform 8%, down from 12-13%.

The tax administration imposes high compliance costs by, for example, lack of self-assessment in the sales taxation for large businesses and of electronic filing, cumbersome registration procedures, and time-consuming dispute resolution, which all encourage undesirable frequent contacts between businessmen and tax officials. Compliance management in Tamil Nadu continues to be enforcement-oriented, without enough focus on taxpayer service and information.

Figure 3.1: Effective Tax rates on Selected Commodities

![Figure 3.1: Effective Tax rates on Selected Commodities](image)

Source: GOTN's Commercial Tax Department.
Many of the tax policy problems, common across states, may be resolved with the introduction of the VAT system (set for April 1, 2005). Given the federal structure, the state's role in designing tax policy and administration is limited but there is considerable room for reforms to reduce the impact of taxing inputs and complexity of tax policy and administration and reduce transaction costs.

Regulation of entry and exit. Easy entry of new producers and exit of inefficient producers are a powerful force in driving industry-wide productivity growth. New producers bring innovation, risk taking, and dynamism into a sector, forcing existing producers to continue to innovate and improve productivity or exit.

Tamil Nadu has made progress in simplifying regulations over business entry. The sequential and protracted approval process involving multiple government departments/agencies has been replaced by a streamlined and coordinated one for large investment projects. However, 19 percent of business managers still identify license and permits as a major constraint. The streamlined process for large investment projects needs to be extended to all small and medium-sized projects. The process of getting a planning permission, construction and building licensing for the construction industry is time consuming, procedurally complex, lacks clarity of rules and coordination between concerned departments. Moreover, large projects throughout the state need to be sent to Chennai for review. The approval process can take up to two to three years.

An important entry deterrent has been the Small-Scale Industry Reservation (SSIR) policy by the central government. This policy discourages economies of scale and greater efficiencies by inhibiting small firms from investing beyond the stipulated limits, expanding their operations in the domestic market, and then moving into exports. Although some of the important items have been de-reserved (e.g., garments, toys and leather products), SSIR has had significant negative impact over decades on the competitiveness of Indian industries.

Despite the remaining influence of the SSIR, Tamil Nadu can further streamline entry regulations in two areas: streamlining regulations concerning construction and real estate industries and extending the simplified entry regulation covering large investment projects to smaller projects in every level of investment.

Exit and bankruptcy procedures, both at the purview of the central government, remain outdated and ineffective, leading to inefficiencies and making industrial restructuring almost impossible. The Amendments to the Companies Act (2002) should improve the bankruptcy framework. The effectiveness of the amendment will depend on the repealing of the Sick Industries Companies Act and the pace of labor market reform.

Resolving Infrastructure Bottlenecks

Infrastructure is more developed in Tamil Nadu than in many Indian states but compares poorly with other emerging economies. Close to 40% of surveyed managers and about 50% of exporters in Tamil Nadu view infrastructure as a major impediment to investments and growth. The infrastructure constraints are across-the-board including power, transport, ports and water. Substantial investment requirements also arise from rapid urbanization in Tamil Nadu. Box 3.1 reflects the World Bank's own interaction with entrepreneurs in Tirupur, India's leading hosiery exporting centre.

Power has become a top infrastructure constraint despite the relative efficiency of the state power utility and having the second largest power market in India. High power tariff to industries and poor quantity and quality of power supply reduce the competitiveness of Tamil Nadu's industries. The
financial stress of the TNEB, arising largely from cross-subsidy to agriculture (and now the domestic consumer segment also), has increasingly constrained its investment ability to improve the quality of power supply. Captive generation sets in operation as a share of total electricity sold in Tamil Nadu has reached 15%, with a statewide average captive plant load factor of 25%. The capital cost of captive generation sets constitutes about 11% of total fixed assets for small businesses. Like many other states, Tamil Nadu will need to find a political solution to the metering of agriculture pump sets and reduction of cross-subsidy to improve the competitiveness of industry and services.

On transport, India has no access-controlled expressways linking the major economic centers, while for example China has built substantial expressway capacity (over 27,000 kilometers) since the mid-1990s. Poor riding quality and congestion result in truck and bus speeds on Indian highways that average 30-40 kilometers an hour, about half the expected average. Demand for road transport has been increasing rapidly in Tamil Nadu with vehicle registrations growing by about 14% annually during the 1990s. However, road network supply and quality have not kept pace with the growing demand, leading to serious network deficiencies in terms of slow response to growing demand, inadequate road capacity and maintenance, severe road congestion and high rate of accidents.

Tamil Nadu has initiated measures to improve the transport network. The East Coast Highway undertaken by Tamil Nadu Road Development Company, a joint venture between GoTN and

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**Box 3.1: Infrastructure Bottlenecks Facing TEKIC in Tirupur**

The Tirupur Export Knitwear Industrial Complex (TEKIC) is one of the major industrial estates or clusters in Tirupur. Tirupur has a population of about 420,000, but exports US$1 billion in knitwear, accounting for about 18% of total Indian knitwear exports in 2000/01.

TEKIC has 189 laid out sheds situated in and around 100 acres of land and 148 industrial units with small and medium investment in operation. Most firms in the complex export to US and Europe markets. In the last three years, member firms have exported about Rs.1750 crore of knitwear (close to US$400 million). The complex employs about 10,000 workers. A World Bank team met with a dozen representatives of businesses in the complex in May 2003. The following infrastructure constraints were highlighted by the representatives:

- Power cuts and fluctuation make it difficult to use precision machinery and equipment which are essential for export products;
- Road congestions around the complex, in Tirupur and to the ports.

Adding to these are the rigid labor regulations which make it difficult to efficiently adjust workforce to meet seasonal variations in business demand, while such variations are typical in garment exports.

TEKIC faces huge competitive pressure with the phasing out of quota-based export system under the Multi-Fiber Agreement. Infrastructure investments are thus urgently needed to make it possible for TEKIC to prepare for competition.

The urgently required infrastructure requirements according to the entrepreneurs are:

- Setting up a power plant to provide reliable quality power supply.
- Strengthening and widening the existing road and providing storm water drain; developing a new road connecting Vilayapuram in Tirupur (Kangayam road) and Periyapalayam in Tirupur (Uttukkuli Road); building a high-level bridge across river Noyyal to interconnect the above roads.

**Source:** Tamil Nadu: Improving Investment Climate, World Bank (2004).
Infrastructure Leasing & Financial Services, is an excellent example of public private partnerships for rehabilitation and maintenance of roads, and could be applied more widely to upgrade the road network. The provision of state equity and other financial support such as “viability gap funding” are also methods of leveraging public funds, which GoTN is considering. A clear regulatory framework for support of public private partnerships needs to be put in place which would define the role of the government and the private sector, lay out the risk sharing principles and also regulate the tariff regime for private roads. An important priority is to press forward with fiscal reform to create fiscal space for investment in the infrastructure sector.

There are complex administrative barriers, high transaction costs and delays relating to shipping, trucking, and customs administration of exports and imports at major ports. The entire cargo transport chain from inland to a European port is estimated to cost 15% higher, and many days of delay, than the reform scenario.

On water supply, unreliability and shortage are a major weakness in Tamil Nadu’s physical infrastructure. The problem, however, is not limited to Tamil Nadu alone. Across India about 54% of businesses rely on own wells. The problem in Tamil Nadu is more acute because of the absolute scarcity of water resources in the state. Renewable freshwater resources are scarce, owing to high variability of rainfall and resulting low river flows and periodic drought. Ground water has been overly exploited. Many of the most important aquifers of the state have been tapped at an unsustainable rate. Businesses report an average of 11 days per month of interruption in water supply from the public line, against the all-India average of 4 days per month and only about half day per month in Malaysia. The economic cost of raw water is high, but water user charges are well below cost recovery. Industrial consumers pay substantially higher tariff to cross subsidize domestic users.

Public and private partnership in infrastructure finance and development. Fiscal distress in Tamil Nadu (as well as in many other Indian states) is a major constraint on the public financing of badly needed infrastructure investment and maintenance. Planned capital outlays and net lending covering all sectors is about US$750 million in 2004/05, or 1.9% of GSDP. This is already much higher than the US$300 million in 1997/98 (1.2% of GSDP) before the start of the fiscal crisis. Assuming the success of the fiscal adjustment, capital outlays per year are estimated to increase gradually to only about US$1.2 billion, or about 2.1% of GSDP in 2007/08. This would, however, satisfy only a fraction of investment demands.

Another constraint is the limited local municipal government revenues from user charges, under assessment of property taxes, and drying up of institutional financing backed by state guarantees. Table 3.2 presents an assessment of urban investment resource needs estimated by the Second State Finance Commission. For Tamil Nadu public and private partnerships in infrastructure financing and development are therefore not only a fiscal necessity but also within the broader reform context in India of creating sustainable financial structures which link liberalizing domestic capital markets with urban infrastructure financing needs.

Tamil Nadu has been at the forefront of experimenting with public-private partnerships in infrastructure financing and development (Box1.1). These reforms have shown that private sector participation under appropriate regulatory arrangements would help not only address the problem of low capital outlay owing to fiscal constraints but also highlight the benefits of increased efficiency in infrastructure financing, delivery, and management. For example, in the
East-Coast Highway (100km) project, the GoTN’s contribution of Rs.10 crore leveraged an investment of Rs.51 crore from the private sector. It will also save the Government more than Rs.100 crore through savings on future maintenance expenses and ensure sustained O&M spending for the entire 30-year concession period.

Experiences with implementation have underscored the importance of the following key factors for a successful public-private partnership pilot: providing selective credit enhancement to Urban Local Bodies and developing financing mechanisms with targeted use of state government contribution and guarantees and link municipal financing with domestic capital markets; leveraging private equity and debt financing to multiples of initial public investment; user fees based on improved service delivery and cost recovery with cross subsidies between consumer categories; building in consideration of operations and maintenance spending when planning a project; and proactive support from the government in inter-departmental co-ordination, close monitoring and trouble shooting; and transparency in bidding and contracting. In addition, a supportive political environment, regulatory certainty (for user charge regimes, concessions and contracting out, and dispute resolutions), operational restructuring to improve the functioning of public institutions, and initial equity participation are important in reassuring private promoters and attracting co-financing from financial institutions. The thrust of reforms should be on sustaining and enhancing project cash flows, rather than relying on government subsidies and guarantees.

With industry and service sectors accounting for over 83% of GSDP, Tamil Nadu is among the more rapidly urbanizing states in India, which is causing growing pressure on urban land and infrastructure. With public/private collaboration, the Government has initiated a comprehensive assessment of urban land markets and projections of future land supply requirements in Chennai, the state capital. Such projections will facilitate the development of an efficient, cost-effective, and financially sustainable urban land delivery system to meet the growing needs for urban infrastructure. The land market audit is planned to be extended to selected cities and towns.

The Government has plans to issue an Infrastructure Policy Paper and establish an Infrastructure Development Board with membership of the private sector to implement...
the gradual scale up of public-private partnerships. Given the intrinsic link between urban land markets and infrastructure development, and based on international experience, pilot projects in urban areas can be initiated to focus on using land value capture to mobilize public finance, structuring partnerships with the private sector in finance and development, using value capture to finance housing projects for the poor, and integrating sustainable environment management with urban land management and infrastructure development.

**Special economic zones.** Special economic zones (SEZs) have been envisioned in India as a scaled-up version of the export processing zones (EPZs) to overcome the constraints of poor infrastructure and high regulatory burdens. GoTN has recently unveiled its own special economic zones policy providing broad guidelines with specifics being worked out. International experience of EPZs and SEZs is mixed, which can provide lessons for the design of a policy and regulatory framework for SEZs. Unless SEZs can significantly overcome key constraints facing the private sector, SEZs will simply be a physical scaling up of EPZs while experience of EPZs in India is mixed. State-wide broader regulatory reforms and infrastructure improvements continue to be important.

**Institutionalizing Public and Private Sector Dialogue**

Development and implementation of a reform agenda that addresses complex regulatory and infrastructure issues will require an institutionalized dialogue between the Government, the private sector, and civil society for setting priorities and finding solutions. The recent establishment of an Advisory Industrial Council, to act as a think tank for the government, is an important step forward. The Council and its Consultative Working Groups can serve as an apparatus to formalize the dialogue between the Government and the private sector.

Tamil Nadu may draw valuable lessons from the type of Councils which has been key in the development of international competitiveness in Asia, particularly in South Korea, Taiwan (China), Singapore, and some other countries. Key factors contributing to the success of these institutions include political support, a clearly-defined decision-making authority in the Council, an accountable implementation mechanism, broad-based private sector participation that is not perceived as representing special interest groups, and a public information and education campaign to build a shared consensus that can transcend any changes at the political level.
Reinvigorating Agriculture Growth
While agricultural sector growth rates in Tamil Nadu were among the highest in India during the 1980s and early 1990s, deceleration in growth since the mid-1990s is of increasing concern to policymakers. During the 1980s agricultural GSDP grew at 3.4 percent, exceeding the all-India agricultural growth of 2.9 percent. Adequate rainfall contributed to even higher growth in the early 1990s: between 1989/90 and 1994/95 agriculture grew by 7.2 percent in Tamil Nadu, compared with 3.1 percent in all of India. But between 1994/95 and 1999/2000 agriculture in Tamil Nadu suffered from severe consecutive droughts and grew only 1.3 percent a year, compared with 2.9 percent for all of India. As a result, the state's agricultural growth rate during the 1990s was only 2.9 percent a year, compared with 3.2 percent for all of India. Regression analysis showed that a one percent increase in rainfall relative to the mean is associated with a 0.3 percent increase in real agricultural GSDP relative to the trend agricultural GSDP.

Faster growth in agriculture is central to rural development and poverty reduction in Tamil Nadu. Although agriculture accounts for only 14% of Tamil Nadu's GSDP and nonfarm income accounts for about 50% of rural household income, farm income accounts for about half of household income for 35 million people (56 percent of the state's population) who live in rural areas. Reinvigorating agriculture growth remains critical since a vibrant agriculture sector encourages industrial growth and farm income accounts for 78% of the income of the poorest 20 percent of the rural population (with estimates ranging from 7.4 million people (20.6 percent of the rural population) to 11.4 million (31.8 percent of the rural population). Given the importance of agriculture in the incomes of the poor in Tamil Nadu, growth in labor-intensive agriculture could further reduce rural poverty through higher yields to small producers, higher real wages to agricultural laborers, and increased income and employment opportunities with forward and backward links to the rural non-farm sector.

**Salient Features of Agriculture**

There are three salient features of Tamil Nadu's agriculture that set the political economy context for searching a viable strategy for revitalizing agriculture growth: water scarcity; the large shares of rice and sugar (both water-intensive crops) in total irrigated land; and the dominance of small and marginal farmers in overall agriculture production.

**Water scarcity.** Tamil Nadu is one of the driest states in India. Per capita availability of water resources in Tamil Nadu is only 900 cubic meters a year, compared with 2,200 cubic meters for all of India. The state's dry season lasts five months (January through May) even in good years, and severe droughts occur in 3 of 10 years, severely limiting cultivation of crops between June and September. Irrigation through a combination of canals, wells, and tanks increases the reliability and
availability of water for farming and is essential for cultivating crops in much of the state. But the seasonality and scarcity of supply limit cultivation to only one crop per plot for most of the state (in 1998/99 average cropping intensity was only 1.20 in Tamil Nadu, compared with 1.34 for all of India), 96% of surface water for irrigation has been utilized and ground water resources are depleting.

Today the state relies equally on surface and groundwater sources for irrigation, though its reliance on groundwater has been steadily increasing. Approximately 30 percent of the net irrigated area is watered by canals and 21 percent by tanks, while 49 percent is fed by wells. The remaining area is irrigated by other sources such as streams and springs. Rain-fed agriculture, employing approximately 25 percent of farmers, accounts for 46 percent of the net sown area of 5.5 million hectares.

The agricultural sector faces increasing competition for water from industry and domestic users and intensifying interstate competition for surface water resources. In many parts of the state, the rate of extraction of groundwater has exceeded recharge rates, contributing to falling water tables. Of a total of 1.8 million wells in the state, approximately 10 percent are now defunct. The depth of bore wells in hard rock area has increased to as much as 600ft to 1000ft. Today, use of dug wells as a source of irrigation is only possible in canal and tank command areas; only bore wells remain operational in hard rock areas (mainly in the western part of the state). Water quality is also a growing concern. Effluents discharged from industries and heavy use of pesticides and fertilizers have had a major impact on surface water quality, soils, and groundwater.

**Rice and sugar.** Rice and sugar, both water-intensive crops, account for nearly 40% of gross cropped area and almost 70% of irrigated area in Tamil Nadu. Rice dominates agricultural production, accounting for about a third of total gross cropped area and nearly 60% of irrigated area in Tamil Nadu (over 90% of paddy is irrigated). Pulses (18% of total cropped area), millet (11%), and groundnuts (10%) require less water than rice or sugar cane, and millet and pulses are grown almost exclusively on non-irrigated land. About 5% of total cropped area is devoted to sugar cane, all of it irrigated (accounting for almost 10% of irrigated land). Cotton occupies about 3% of cropped area, and about a third of the cotton crop is irrigated.

The livestock and fisheries subsectors are also important in Tamil Nadu. The state ranks second among Indian states in egg production and ninth in milk production. In 2001/02 Tamil Nadu accounted for approximately 6 percent of national milk production and 11.9 percent of egg production. The state is also relatively well endowed with fisheries, accounting for 13.2 percent of total marine fish production and 4 percent of in-land fish production in India. In all, crop agriculture, livestock, and animal husbandry account for 92.2 percent of total value added in agriculture and allied activities, with fishing accounting for 4.5 percent and forestry for 3.3 percent.

**Dominance of small and marginal farmers.** The average size of individually-held farms is only 0.91 hectares, with over half the farms smaller than 0.5 hectares. Nearly three-quarters of farms are smaller than 1 hectare, accounting for only 30.2 percent total cultivable land. In comparison, the average farm size in India is 1.41 hectares, with 62 percent of farmers holding less than 1 hectare.

**Efficient Water Resource Management**

Efficient water resource management is a key priority for not only agriculture but also the
entire state economy. It requires complex regulatory and institutional changes beyond the medium term. There are three main issues concerning the management of water resources: fragmentation and lack of strategic coordination; distorted pricing of water; and decline in the quantity and quality of public investment in irrigation structure.

**Institutions for water resource management.** Institutional weaknesses have undermined proper management and development of water resources in the state. As is common in many Indian states, inadequate priority to and funding for operations and maintenance led to rapid deterioration of surface irrigation. There was also minimal involvement of farmers in the operations and maintenance of irrigation systems. Management of water resources is fragmented and lacks strategic coordination across key institutions. But recent efforts have been made to address many of the issues plaguing the water sector.

Important legislation has been enacted to require rainwater-harvesting structure in all public buildings to recharge the groundwater and arresting seawater intrusion; a massive and successful public campaign has been underway. The Government is also moving away from fragmented management of water resources toward a holistic river-basin framework, with the participation of all stakeholders. The River-Basin Management Council in two out of 17 river basins has been established, a first in India. A basin perspective helps minimize negative impacts on downstream human and ecological uses. A groundwater policy is being prepared. The state has drafted a Water Policy, initiated steps for irrigation management transfer, and passed a Groundwater Regulation and Management Act, one of the first states in India to do so. The State Legislative Assembly passed the Tamil Nadu Farmers Management of Irrigation Systems Bill (FMIS) in May 2000.

There are three priorities for more efficient institutional management of water resources. The first is the need to develop a state-wide water resources management strategy which examines competing uses for water and a strategic framework for inter-sectoral allocation of scarce water resources. The second is the need to introduce specific, legally enforceable water entitlements to various users in a river basin and or aquifer framework. The third is the need to clarify and develop rules and a framework for interplay among various agencies and institutions on the management of water resources policy, i.e., the River-Basin Management Council, farmers' water user associations, local governments, and Water Resources Organization under the Public Works Department. Irrigation management transfer is at an early stage in Tamil Nadu and water user associations are not yet fully functional, though the FMIS Act mandates the transfer of irrigation management to farmers. Further, the separation of a regulatory function and service delivery function, currently held by the Public Works Department, would be required.

**Pricing of water and electricity.** Under the current system of economic incentives (prices, subsidies, taxes), the cost of water for farmers and other water users does not reflect the scarcity value (opportunity cost) of water. Throughout India, farmers using surface water for irrigation from canals or tanks are implicitly subsidized because water charges fall short of operations and maintenance expenditures. Between 1990 and 2002 farmers using groundwater for irrigation in Tamil Nadu also benefited from free agricultural power supply. Subsidizing irrigation water means that the environmental costs of water use are not being internalized, reducing incentives for water conservation, encouraging the cultivation of water-intensive crops, and contributing to environmental degradation. The irrigation and agricultural power subsidies have contributed to the state's large fiscal deficit. These subsidies also have a high opportunity
cost in terms of other social and economic expenditures foregone.

In 2003, the Government of Tamil Nadu announced increases in irrigation water charges. Previously, water charges were levied by the Government of Tamil Nadu at a base rate (which varied according to crop, season, and soil quality) plus an additional charge equivalent to six times the base rate. This additional charge was transferred to the local panchayats. Beginning in July 2003, an additional water charge of Rs. 150 per hectare was imposed, de-linked from any additional cess. With this change, farmers were to pay the original charge plus the Rs. 150 per hectare. In addition, the FMIS Act empowered water user associations to charge users between Rs. 250 and Rs. 500 per hectare. This fee could be retained by the associations for operation and maintenance of the systems turned over to them. These provisions for irrigation water charges allowed full cost recovery of required operations and maintenance expenditures. The extent to which farmers were actually being charged the proposed water rates is unclear.

The agricultural power tariff introduced in March 2003 included a flat rate for unmetered connections of Rs. 250 per horsepower a year and Rs. 0.20 per kilowatt-hour for metered connections. Along with the reintroduction of the agricultural power tariff, the government announced an income support scheme for smallholders and marginal farmers. Under the income support scheme, the Government of Tamil Nadu provided smallholders and marginal farmers a transfer of up to Rs. 1,250 a year. This was a significant step toward creating a more direct and transparent system of subsidies to farmers and other target groups and ensuring the separation of commercial operation of the power utility from the need for subsidy. However, in a recent development power supply to agriculture is now free again and the direct subsidy scheme to farmers has been replaced by non-transparent budgetary support to the TNEB.

In any case the flat rate charge of Rs. 250 a year for a five horsepower pump set would have had only a small effect on net returns to land and management, reducing them by only 4.9 to 6.5 percent. Costs of crop cultivation using well irrigation would have risen by only Rs. 625 per hectare (annual charge pro-rated for one season) to Rs. 1,250 per hectare (for sugar cane grown over eleven months). However, such increases were also against the background of repeat droughts starting in 1999 which have reduced significantly agriculture growth and income (see page no. 10).

Increases in electricity charges would have little effect on overall rice production and market prices but a major effect on sugar cane production. Since only about 10 percent of rice area cultivated is irrigated with well water (about 200 thousand hectares), changes in electricity pricing would have only marginal effects on production. And since rice is also supplied by net public distribution (averaging 1.2 million tons a year from 1997/98 to 2001/02, 18 percent of net production) and private market trade from neighboring states (estimated at 1.0-1.3 million tons in the drought year 2002/03), the effect of lower rice production from well irrigated areas on market prices of rice would likely be small. Impact on sugar cane production would be much higher however, as essentially all sugar cane is irrigated in part with well water.

If electricity charges are raised to the estimated marginal economic price of electricity to agriculture of Rs. 3.1 per kilowatt-hour, irrigation costs would rise to about Rs. 4,600 per hectare for paddy and sugar cane, reducing returns to land and management by 35.9 percent for paddy and by 23.8 percent for sugar cane. Likewise, total returns to land, labor, and capital (value added) fall sharply for paddy and sugar cane irrigated by wells when the cost of electricity for pumping is included.

It has been well recognized in India that the power subsidy is regressive, and farmers most at
risk from drought are those without a pump set. But the reality is that nearly three-quarters of farms are smaller than 1 hectare, which may not be all poor, but they are not too far from subsistence living. Unless an integrated service package is provided to farmers, reducing power cross-subsidy is politically difficult. As a way to move forward, Tamil Nadu may carry out a small scale experiment of providing a community of farmers with the best facilities they need and assuring them of a minimum of their present income levels and asking them to pay for power and then examine whether their incomes levels increase or decrease in this experiment.

**Challenges of Agriculture Diversification**

Even with efficient management of water resources, diversification into higher value, less water-intensive products, such as fruits, vegetables, spices, and livestock products, may be one of the most promising sources of future agricultural growth, simply because of the aggregate scarcity. Tamil Nadu’s agro-climatic conditions are well suited for diversified agriculture. Rapidly increasing incomes and changing patterns of food demand also provide strong impetus for diversification. Increased agricultural diversification and private investments in processing for many of the higher value agricultural commodities are likely to generate new rural non-farm employment opportunities and contribute to higher rural incomes.

Notwithstanding its importance, there are daunting challenges in diversifying agriculture. Simply raising water and electricity tariffs has not only met political resistance but also would not provide sufficient incentives for farmers to move toward less water intensive crops. Currently in addition to having price incentives to grow rice and sugar, farmers engaging in rice and sugar production also have an extension system supporting them and a government procurement system to protect them against crop failures associated with droughts, market risks, and infrastructure constraints which reduce farm gate prices. Pure market pricing solution and deregulation will not work in a complex context of political economy and institutions.

Broader policy and institutional reforms are required to form a coherent package. The required reforms are: decentralizing a traditionally top-down centralized extension system which cannot respond to market signals for more diversified agriculture; facilitating efficient markets; developing a rural credit market, and developing an insurance and safety net program to cushion against the risk of diversification particularly for small and marginal farmers who rely mainly on agriculture subsistence income; and a delivery package to improve farmer income associated with gradual adjustment of input pricing.

**Decentralizing the extension system.** The agricultural extension system in Tamil Nadu, like the rest of the country, is still organized around a modified Training and Visit approach and continues to focus on major food-grains. There is little coordination among line departments (agricultural, animal husbandry, fisheries) in their extension approach. The highly centralized extension system cannot meet the needs of diversified crops and products. A wide range of product types would require a decentralized and flexible extension system that can respond to market signals.

The extension system is slowly changing, however, and the promotion of public-private partnerships in extension is encouraging and offers potential for both cost-savings and greater efficiency. The Government of Tamil Nadu also plans to link agricultural, horticultural, and agricultural engineering extension systems and units to improve the extension capacity for horticultural development. Related to extension, an assessment of the state’s comparative advantage in producing higher value crops for the domestic and export markets would also help in setting
future research and development priorities. Re-orienting agricultural research to make it more farmer-responsive would likewise improve the output of a system that has enjoyed much success in rice technology development in the past.

**Facilitating efficient markets.** Well functioning agricultural markets are also important for successful agricultural diversification. Unlike most Indian states, where wholesale marketing is restricted to regulated markets, Tamil Nadu permits traders to transact sales outside of regulated markets. Private markets account for about 90 percent of the statewide trade in major crops. Regulated markets, in which licensed traders bid for farmer produce through a tender system, account for only 10 percent.

Further, if recent policy reforms removing restrictions on purchase, movement, stocking and sales of paddy and 13 other crops by the private sector are consistently implemented at the local level, they can be expected to improve marketing efficiency, reducing the margin between producer and consumer/export prices. Reductions in marketing costs are also necessary in order for production increases to lead to higher agricultural incomes, particularly for perishable high-value products (e.g., fruits, vegetables, animal products). Private investments in processing and marketing horticultural and export crops have enjoyed some success (for example, turmeric exports from Erode). Contract farming involving business agreements for the purchase of outputs and often the provision of inputs and extension advice is increasing, particularly for sugarcane, cotton, and horticultural crops.

Inadequate transport network including major ports is a major constraint to well-functioning agriculture markets as it impedes the efficient transportation of agriculture products from farm gates to consumers, increasing transportation and delay costs. These are particularly important constraints for high-value agriculture products such as cut flowers, vegetables, fruits, and fishery products.

**Developing safety nets.** Whether agricultural diversification reduces rural poverty in Tamil Nadu will depend on the extent to which small and marginal farmers, who dominate Tamil Nadu’s agriculture (see page no. 56), adopt new technologies and have access to markets, the magnitude of employment and real wage rate gains, and the size of linkage effects with rural non-agriculture. Furthermore, periodic droughts bring about volatility in production and income, dramatically increasing vulnerability for small and marginal farmers, who rely on subsistence living and have less non-farm income and assets to mitigate the impact of volatility. The implications of an agricultural diversification strategy involving higher risk crops and capital-intensive technologies (drip irrigation) must be assessed. This assessment should review crop and drought insurance instruments, and the potential for innovations in these instruments to enable rural farmers, particularly poor farmers, to better manage risks.

Increasing employment and earnings in the dry season is especially important for the rural poor. Increased availability of water and greater efficiency of water use in the dry season (for example, through the widespread adoption of drip irrigation) could enable cultivation of crops year-round, providing employment in agricultural production and processing. Dissemination of new production technology and establishing markets

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19 In May 2003, following the February 2002 central Government order removing licensing restrictions on rice and 13 other crops, the state Government withdrew its licensing system for these crops. Restrictions on purchase, movement, stocking, and sales of these commodities have been removed, though some provision remains for Government intervention in the case of high market prices for goods distributed through the public distribution system.
for dry season crops remains an important unresolved issue, however. Contract farming (Box 4.1) may help overcome these problems, if competition between firms helps farmers maintain their share of the value of the final product sales.

**Improving Public Expenditure.** Although public expenditure on agriculture in Tamil Nadu is relatively high among Indian states, the composition of expenditure is a problem. Expenditure on agriculture, allied activities, and irrigation as a share of agricultural GSDP is higher in Tamil Nadu than in most major agricultural states in India. Between 1998 and 2000, public expenditure on agriculture equaled 11 percent of total agricultural GSDP in Tamil Nadu, compared with 7.8 percent in all of India. Public agricultural capital expenditure in the state is relatively low as a share of agricultural GSDP compared with the all-India average, while the opposite is true of revenue (i.e., current) expenditure. This is a situation for concern since capital investment is important for future growth. Furthermore, a large share of revenue expenditure is incurred on staff salary, and food and irrigation subsidy, leaving operating expenses under funded. Gross fixed capital formation in agriculture increased

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**Box 4.1: Contract farming in Tamil Nadu**

Contract farming involves a business agreement between a farmer and a firm in which the firm provides inputs, extension services, processing and a ready market in return for a guaranteed source of supply of the output product. Such arrangement between sugar mills and cane farmers has long been practiced in Tamil Nadu and other parts of India. For other products, however, restrictions on private sector trade motivated by a general mistrust of traders, along with the structural characteristics of output markets (including the inability to differentiate products by quality or brand) have greatly limited the scope of contract farming.

**Rice:** Beginning in a limited way in 2002/03, EID Parry sold approximately 60 tons of improved seeds for super fine quality 'Ponni' rice (enough for about 800 hectares) and provided extension services to sugar cane farmers who sold sugar cane to the firm’s sugar mill in Cuddalore, but were also willing to grow rice. With the improved rice technology, paddy yields were approximately 25 percent higher than normal yields of 3.75 tons/hectare. Moreover, because of drought, market prices were about 20 percent higher than the previous year. EID Parry later purchased the output. In the absence of an explicit sales contract, though, the firm risked not being able to purchase supply for its rice mills. The entrance of large private firms into rice markets has only been possible with the removal of stocking limits (in May 2003), and other restrictions on movements of paddy and rice.

**Cotton:** Cotton contract farming started in about 1200 hectares in the 2002-03 season. The farmers have the option to sell cotton to the contractor or to any other buyer under the market prices prevailing during harvest period. For the services provided by the contractor, a nominal charge will be levied on the farmer on a unit area basis.

**Gherkin:** Gherkin cultivation and processing started in India in the early '90s and at present is spread over 7,900 hectares in the three southern states of Karnataka, Tamil Nadu and Andhra Pradesh. There are about twelve companies operating in the state and each company has agricultural extension team of 5-25 who identify farmers and then enter into a buyback contract with them.

**Poultry:** Contract farming for poultry is also practiced in Tamil Nadu. For broilers, firms supply chicks, feed, medicines and technical guidance to the farmers. The firms then buy the birds when they are eight weeks old at a predetermined price.

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20 Agricultural public expenditure as a share of expenditure on Economic Services and Agricultural GSDP are averages of data from 1998/99-2000/01.
by 15 percent during the 1990s, due primarily to private capital formation, which accounted for 88 percent of gross fixed capital formation in agriculture.

There remain, however, important roles for the public sector in promoting agro-food system and agro-enterprise development. In addition to policies that establish "rules of the game" and address market failures, public investments in the road network to strengthen connectivity can contribute to reduced costs of marketing. Reorienting public expenditure from consumption to growth-enhancing areas in key public goods such as rural roads, markets and agricultural research and extension will facilitate productivity improvements and diversification of agriculture to higher value products. Tightening competition for limited fiscal resources heightens the urgency of appropriate public expenditure reallocation. Institutional reforms within government departments to ensure improved quality of delivery of rural-related public goods and services is also important (see Section II on fiscal reform and V on public administration reform).

Greater attention is also needed for modernizing irrigation infrastructure and scaling up the adoption of water-saving irrigation technologies. While the use of sprinkler and drip technology has been promoted in the state, their high capital cost constrains widespread adoption by smallholders and marginal farmers. More affordable technology or a suitable system of targeted subsidies should be developed to increase the use of sprinkler and drip systems.
Improving Public Administration and Enhancing Service Delivery
Improving Public Administration and Enhancing Service Delivery

While the main objective of fiscal consolidation and reform is to correct aggregate expenditure imbalance to create the fiscal space for priority spending in infrastructure and social sectors, it is critical that the expenditure allocated to the priority sectors and areas be spent efficiently. To this end, the strengthening of public expenditure management and financial accountability would need to be supported by public administration reform to enhance service delivery.

Tamil Nadu has traditionally had capable public administration. It has moved from a near-average to a high-performing state as indicated by the HDI, which is measured by longevity, education, and command over resources. Tamil Nadu's HDI, though ranked seventh place in 1981 rose to the third highest among 29 Indian states in 2001. Tamil Nadu has also done well in delivering key services: A recent survey conducted by the Public Affairs Center reveals that the state has the country's best public distribution and school education systems, and the second best public drinking water and road transport services after Gujarat. This, of course, is not a uniform picture: health services, for example, are ranked fifth. Yet, notwithstanding this impressive record, Tamil Nadu faces several critical challenges that need to be addressed to preserve and extend the gains made so far.

To further improve public administration and enhance service delivery, the reform agenda would need to focus on the following areas which cut across sectors: (i) administrative reform to improve the efficiency of the government by rationalizing and restructuring government functions, simplifying decision-making processes, and improving the stability of staff tenure; (ii) improving services with a large public interface through a combination of measures, including agency reform and e-governance; (iii) transparency and anti-corruption by overhauling the public procurement system, ensuring the public's right to information, and strengthening the anti-corruption enforcement machinery.

Rationalizing the Role of Government

The civil service in Tamil Nadu has proliferated in the last twenty years: Tamil Nadu today possesses the highest ratio of civil servants per hundred population in India of any major state after Punjab. While restructuring the government has become imperative because of the fiscal crisis, a fundamental issue is to rationalize the role and functions of the government in an increasingly market-driven economy.

To rationalize and restructure the civil service and improve its productivity, the Government constituted a Staff and Expenditure Reforms Commission (SERC) in December 2001 to

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systemically review and realign the roles and responsibilities of each of the 140 departments and identify redundant departments/functions/posts, including areas where the government should exit and let the private sector take over (Box 2.2). The exercise was carried out with the benefit of extensive consultation within the government, including with staff associations and unions, as well as consultation with the public.

The SERC reports have identified about 85,000 surplus posts, and 113,000 vacant posts made feasible by hiring freeze. The surplus posts are targeted mainly at lower-level administrative posts and at those government functions no longer required in an increasingly market-oriented economy. The rationale for eliminating these posts is three-fold: (a) they are overstaffed in terms of existing work norms; (b) they are overstaffed in terms of the work that can be done by new technology; and (3) these tasks can be outsourced. There are no cuts in teachers, doctors and nurses, and police in front line service delivery.

The reduction in the core civil service size (posts) by 2007/08 (from 2002/03) can be achieved by abolishing 85,000 posts using 2002/03 as the base year. The abolishing of the surplus posts will enable a more efficient allocation of staff across departments within the targeted ceiling. The Government has commenced the implementation of the SERC’s recommendations by issuing orders to abolish 40,500 vacant surplus posts; an additional 10,000-15,000 posts which are currently live, are to be abolished in 2004/05. Downsizing has been difficult to accomplish in India, and Tamil Nadu could prove to be no exception, notwithstanding solid gains to date. Moreover, the recent decision of retaining the services of 15,500 temporary workers hired last year is not an encouraging sign of government commitment.

The Government has also issued an order allowing for the "progressive" outsourcing of all Group D categories (e.g., sweepers, security personnel), with the exception of office assistants, provided that new contractors give preference to existing employees on the nominal muster roll (N M R) or receiving daily or consolidated wages. The Government also plans to take actions on the SERC’s recommendations to further streamline public administration.

**Streamlining Decision Making**

Like many Indian states, the process of decision making is cumbersome and involves a large volume of paper work and multiple and often duplicating layers.

To simplify the decision-making process, the SERC also reviewed the functioning of the Secretariat, focusing on three issues: (i) improving efficiency through delegation to heads of departments, level-jumping, the introduction of the single-file system, and computerized file monitoring; (ii) greater flexibility for redeploying staff; and (iii) tightening up on discipline by tracking attendance. The Government issued an order in March 2002 permitting level-jumping—which reduces the number of layers through which a file passes to no more than three—for a variety of subjects including, among others, transfers, granting of annual pay increments, leave matters, and disciplinary cases. Another order in November 2002 allows departments to introduce the single-file system, which permits heads of departments to send an entire file directly to the Secretariat for approval on various subjects. A comprehensive e-governance strategy is being formulated to increase transparency, improve efficiency, and speed up decision making.

**Improving the Stability of Staff Tenure**

Tamil Nadu is not immune to the national phenomenon of frequent staff transfers, which undermines service delivery by disrupting managerial continuity and generates corruption by creating a market in posts.
Responding to the problem of pre-mature transfers, the Government introduced a system of formal counseling for transfers in both the Health and Education Departments. The new system is aimed at reducing discretion in the process by holding annual, open consultation to allocate postings in the presence of applicants based on transparent and publicly-known criteria. The Government has plans to introduce computerized counseling in health and education. The Government has also recently issued a Government Order (GO) covering the entire civil service. The GO specified transferring authorities, established norms for three- to seven-year tenure, limited transfers to 20% of cadre strength and to the season only, and announced the creation of a public transfer database on the internet to track transfers over time. The creation and implementation of a public transfer database on the internet to track transfers will provide a basis for formulating additional measures to improve the transfer process. Recent announcements of transfers (after national elections) however raises questions about the implementation of the GO.

Improving Critical Services with a Large Public Interface

While Tamil Nadu has done well in service delivery in some key areas relative to the rest of the country, there is still room for improvement. A number of reforms are ongoing; these include improving the Registration Department by introducing a computerized guidance value calculation software package for use in its sub-registries, and promoting the development of kiosks in villages to improve rural service delivery and empower rural citizens (Box 5.1). Rural land records have also been fully computerized. Urban municipalities have computerized many services, including the issuance of birth and death certificates, trade licenses and the collection of property taxes and water charges. Metrowater, Chennai’s public water utility, is a model of how to deliver services in a citizen-friendly manner.

Over the next few years, in addition to policy and institutional reforms in critical sectors such as water supply and sanitation, education and health to enhance service delivery, the Government plans to focus on improving 10 critical services with a large public interface, including regional transport services, commercial tax, stamps and registration for property transfers, district administration, and local bodies. It plans to accomplish this through a combination of measures such as e-governance, process reengineering, citizens’ charters, and partnerships with the private sector.

**Box 5.1: Rural Access to Services through the Internet (RASI) in Tamil Nadu**

RASI delivers a variety of services to rural villages using wireless technology connected to the state’s fiber optic network and the Internet Service Provider. It is based on public-private partnerships involving the Indian Institute of Technology Madras, N-Logue, a private company, the Center for Entrepreneurial Development in Madurai, and the GoTN. In villages located in Melur Taluq and Madurai districts, the kiosks were located in a prominent spot in the village. Villagers can send application forms on line to government offices for various certificates, which are collected by the operator and delivered to the applicants by hand. A web-camera installed at the kiosks allows people suffering from eye defects to send photos of their eye to Madurai’s Eye Hospital for an initial analysis; this has been extended to photographing diseased crops for analysis at the local agricultural university. When several cases of malaria broke out in a nearby village, health officials received an e-mail and arrived the following day. Critical information is online, such as crop prices, canal irrigation timings, guideline values, and eligibility criteria for schemes. RASI also offers business applications, such as linking villagers to buyers and sellers of farm equipment or providing them access to life insurance offered through the website of the Life Insurance Corporation of India.
Procurement Reform

Tamil Nadu was the first Indian state to introduce legislation, in October 1998, to improve transparency in public procurement and to regulate tendering and contracting procedures of government departments, statutory bodies, public sector enterprises and other local bodies. The Act has become a model for other states wishing to reform public procurement (e.g., Karnataka, Andhra Pradesh, and Punjab). The detailed rules and tendering procedures under the Act took two years to finalize and the Act and the Rules came into effect only in October 2000.

The pace of procurement reform has been accelerated, focusing on the implementation of the Act. It has completed a three-year comprehensive procurement reform action plan, based mainly on a study carried out by the World Bank for the Government.22 A dedicated central "Procurement Procedure Cell" was created in the Department of Finance in October 2002 to supervise the implementation of the agreed reforms and to serve as a central policy and oversight unit for public procurement in the state. Consultants have been selected for some high-priority items in the action plan, e.g., revision of Finance, Accounts, and Public Works codes; improving works procurement procedures; introducing code of ethics for officials and the business community and tightening enforcement; evaluation of reservation and exemptions with a view to provide a level-playing field; enlarging the scope of rules to cover consultant selection procedures; and issuing guidelines and directives on procedural improvements.

Right to Information

Tamil Nadu passed the country's first Right to Information (RTI) Act in 1997; the Act itself, however, was flawed. Exemptions are numerous and broad enough to make virtually all government information off limits to the public if interpreted literally. While most RTI Acts in India, and globally, provide for automatic and pro-active release of certain categories of information on a suo-motu or routine basis, there is no such provision in the Tamil Nadu law. It also lays down no penalties for non-compliance and fails to establish an independent channel for appeals. The law falls below GoI’s standards set in the Freedom of Information Act (2002), as well as the standards of state laws in Delhi, Karnataka, and Maharashtra.

The Government announced in the 2003/04 Tamil Nadu Governor’s Address the need to revise the Right to Information legislation. The Government is currently preparing a new draft law that will provide for minimal exceptions, an independent appeals process, penalties for non-compliance, and more automatic disclosure of information by departments. The GoTN hopes to submit this bill to the state legislature soon, for the purpose of providing a sound basis for implementation over the next three years.

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22 In November 2000, the World Bank carried out a Country Procurement Assessment Review (CPAR) for India, and selected Tamil Nadu as the first state to review, particularly to assess the effect of the Transparency Act. The report made a number of recommendations to further improve the efficiency, transparency and accountability of public procurement procedures and to minimize opportunities for corruption, as also to introduce modern concepts and technology in the procurement system.
Enforcing Anti-Corruption

In addition to ongoing systemic reforms to prevent corruption (e.g., procurement reform, business deregulation, e-governance, and fiscal transparency), enforcement efforts need strengthening. The Vigilance Commission and its investigating agency, the Department of Vigilance and Anti-Corruption (DVAC) function as government agencies. Quite unlike neighboring Karnataka’s independent Lok Ayukta who has the authority to investigate both corruption cases and grievances arising out of maladministration involving civil servants and Ministers and exercises supervisory authority over the police wing of the Lok Ayukta. The performance of the DVAC has been mixed, with high conviction rates drawn from a very small number of registered cases, mostly easy-to-prove ones for whom traps were set. Only 1% of petitions filed with the DVAC between 1993/94 and 2002/03 resulted in prosecution in any given year. Neither the Vigilance Commission nor the DVAC possessed a public website to disseminate performance information.

Building on various, ongoing governance reform initiatives, a Government Order was issued in February 2004 to establish a high-powered Governance Reform Commission to: (i) prepare an action plan with monitoring indicators for improving 10 critical services with a large public interface; (ii) suggest the structure and modality for an independent institutional mechanism to oversee public grievance management and handle corruption complaints in service delivery; and (iii) recommend measures to strengthen the government’s capacity to implement a broader program of governance reform including modalities for encouraging well-informed public debate and building broad-based consensus on priority issues. The Governance Reform Commission is, however, yet to begin functioning. Meanwhile, the government has announced the constitution of ‘Service Delivery Improvement and Grievance Redressal Committees’ at the levels of district, department and secretariat departments while a state-level joint council headed by the Chief Secretary would be reconstituted.
Notwithstanding good progress in reducing poverty and improving human development indicators in Tamil Nadu, poverty remains high, with 12-17 million out of 62 million people still below the poverty line. There are also emerging human development challenges (see page nos. 7 to 9). While broad-based economic growth is necessary for poverty reduction, programs targeted at the poor, disadvantaged and vulnerable are equally important to ensure that growth is more broadly shared and that the poor will be protected against the potential impact of, for example, the reduction of subsidies.

Tamil Nadu has a plethora of poverty-reduction programs. One of the most important ones is the public distribution system for food security. Another well-known program is the Noon Meal Scheme to provide incentives, particularly to the poor children for school enrollment. It will be important to strengthen monitoring and evaluations of targeted poverty-reduction interventions in order to inform better ways to improve targeting and rationalization across programs.

Effective poverty targeting needs to start with the identification of the poor and understanding the nature of poverty (both income and non-income) and identifying the key determinants of poverty. From available data - mainly NSSO, National Council of Applied Economic Research and National Family Health Survey (NFHS) - some important lessons regarding the relationship between poverty in Tamil Nadu and geography, asset ownership, occupation, demographics, health and education, and agriculture could be drawn.

These messages yield a number of broad implications regarding targeted poverty-reducing programs. In terms of targeting, there appears to be a case for paying special attention to the rural areas in the Coastal North and the South, and possibly to the urban areas in the Coastal North. Scheduled Castes and Scheduled Tribes (SC/STs) also appear to face particular barriers to upward mobility, and the data suggests that these stem at least in part from three sources: access to land, education, and regular non-farm employment. Indeed these three barriers, although especially acute for SC/STs, tend to be characteristic of the poor more broadly. Addressing them will therefore be a vital part of any poverty alleviation strategy pursued by the state.

There are a great many questions regarding poverty in Tamil Nadu that are difficult to answer for lack of data. The list of questions which remain unanswered is extremely long, but a couple of examples may serve to illustrate the consequences of data limitations facing poverty analysis.

First, since National Sample Survey (NSS) data are only representative at the NSSO regional
level, constructing more disaggregated regional poverty measures has not been possible. From the point of view of policymakers, and in particular against a background of decentralization, there is a real interest in knowing more about the geography of poverty at the level of 29 districts or the 384 blocks. For a state as large as Tamil Nadu with a population of 62 million, data disaggregated at the four regional levels cannot provide detailed geographic profile of the poor—i.e., where the poor are. Methods have been developed in recent years to combine survey with census data so as to produce detailed geographic profiles of poverty, but such methods have not yet been implemented in India. Such information is thus unlikely to become available in the short run.

Similarly, although we can glean some insights from NFHS data, we cannot paint a very detailed picture of urban poverty. This is clearly unsatisfactory since urban poverty promises to be a growing challenge with the rapid urbanization of the state.

Second, although data such as the NFHS do provide us a rich picture of women’s quality of life, it has little data regarding income or consumption. This makes it difficult to map these indicators into an understanding of poverty. Given that the Tamil Nadu government has been laying increasing emphasis on assisting women, it would no doubt be useful to systematically identify the challenges facing poor women. Although constraints on employment and earnings appear to be an important deterrent to upward mobility amongst women, as well as other disadvantaged demographic groups, especially SC/STs, we are not in the position to elaborate on the nature of these constraints, particularly in urban areas.

Developing a comprehensive poverty reduction strategy will involve more investment in poverty monitoring. This is obviously a grand undertaking, but the recent Below Poverty Line (BPL) survey is an important step in this direction. It asks a number of important questions regarding household characteristics, including income, asset ownership, and a few occupational and demographic characteristics. Since it is a census, the BPL is amenable to the addition of modules, which could be used to acquire data representative at least at the district level. Such an undertaking would be considerably facilitated by virtue of the fact that much of the necessary survey infrastructure is already in place. The BPL therefore offers a valuable opportunity to fill gaps in our knowledge regarding the nature and determinants of poverty in Tamil Nadu. Much remains to be learnt, however, about the quality and reliability of the BPL data that are currently being collected.

The BPL type of surveys can also be supplemented by sectoral MIS data. Various government departments in Tamil Nadu such as Social Welfare, Education, Health, and Rural Development collect and maintain useful data such as nutrition, infant mortality, primary school enrollment and dropout rates, maternal mortality. One deficiency is that these data from various departments are not integrated. With the ambitious e-governance project initiated to modernize the information system of the state government, a useful and important step can be taken to establish a central poverty and human development monitoring unit under the Planning Department to integrate monitoring (currently done by each of the concerned departments) for synergy and a common database that will facilitate systematic evaluations and policy feedback on poverty-reduction interventions.

The capacity to monitor the progress of poverty and human development and link that with overall policy and poverty-reduction
interventions remains critical. There is also scope for aligning the various programs listed in the Tenth Plan to improve coordination and targeting: many programs are not coordinated, with multiple, overlapping and sometimes different objectives. The government has plans to conduct evaluations of key programs. The Noon Meal Scheme may be a good program to begin the exercise. A comprehensive and well-coordinated monitoring and evaluation system will be essential to streamline the various projects currently envisaged and further strengthen the government’s efforts in poverty reduction.
Reform Challenges and Risks
Tamil Nadu faces the longer-term challenge of reform for accelerating economic growth and reducing poverty. Repeated droughts and growing waters shortages have heightened the importance of structural transformation. Such transformation will reduce the vulnerability of the economy to periodic drought, and free up scarce water resources to higher value-addition activities in the industrial and service sectors. The faster growth of these two sectors would help absorb agriculture surplus labor and reduce currently high unemployment rate of the state.

Reform priorities for the structural transformation to accelerate economic growth and reducing poverty are the following:

- Fiscal reform remains an immediate development challenge for Tamil Nadu, and India. Fiscal stabilization, correcting aggregate imbalances, and improving the composition of expenditure is critical for creating the fiscal space for priority spending in infrastructure and social sectors.

- Fiscal reform must be accompanied by strengthened public expenditure management and public administration to improve the effectiveness of public spending and service delivery.

- Fiscal adjustment alone without a complementary focus on the investment climate and economic growth is insufficient. Faster economic growth positively influences not only debt sustainability but also employment and income generation, facilitating larger distribution of reform gains.

- Even assuming the success of fiscal adjustment in accordance with the MTFP, public investments in infrastructure and basic services are likely to remain a fraction of investment needs. Thus, public-private partnerships in infrastructure financing and development under an appropriate policy and regulatory framework are essential.

It needs to be understood that many important policies are not within the purview of the state government. Policies of the central government affect fiscal sustainability and growth in states. These central policies include the share of the state in central tax devolution, the introduction of VAT, a macroeconomic framework that may affect interest rates on state debt, regulatory policies on private sector activities such as labor market regulations, business exit and bankruptcy procedures, and infrastructure policies and development affecting major ports, air markets, inter-state highways etc.

**Agenda for fiscal reform.** Putting Tamil Nadu’s fiscal reform in the Indian context, fiscal consolidation remains the most serious macroeconomic challenge facing India, with the general government deficit estimated at close to 10% of GDP and the debt/GDP ratio at 81% in
Almost half of the consolidated fiscal deficit is made up of states’ deficit. States’ fiscal reform has shown to be difficult, its progress uneven across states and several states have experienced varying degrees of policy reversals. Reforming civil service salaries, pensions, subsidies improving tax administration and reforming the power sector remain politically challenging. State reforms will be accelerated by the linking of central fiscal resource transfers to states with their fiscal performance. In this regard, strengthening of the initiatives already undertaken by GoI, such as the Fiscal Reforms Facility, will be important. A schematic list of necessary reforms in the broad area of fiscal and public expenditure management is presented at Annex 2.

MTFP will need to reflect the vision of the state in consonance with the state’s Fiscal Responsibility Act. To operationalize the development vision, policy formulation and budgeting need to be better integrated by ensuring that fiscal constraints are realistically identified and appropriately incorporated into each of these processes. As recognized by the GoTN, the fiscal crisis offers an opportunity to address systemic institutional weaknesses and minimize the recurrence of fiscal crisis. Recent policy actions undermine the reform framework and question government commitment. Institutional reform includes upstream budget formulation to downstream execution and accounting and audit (some of which will no doubt depend on consensus at the national level).

Tamil Nadu, (and India) will need to find a politically viable solution to power sector reform to resolve the twin problems of shortage and poor quality of power supply, as a viable power sector is critical for achieving fiscal stabilization, accelerating economic growth, and ensuring sustainability of ground water resources which are depleting at an accelerated rate. Although power theft and corruption are a lesser issue in Tamil Nadu reducing cross subsidy is critical to the financial viability of the power sector. To get the reform levers aligned so vested interests are not alienated and, most importantly, that poor people receive their rightful delivery of social services, is the challenge.

Equally challenging is expenditure reform which reduces and/or redistributes benefits. First, user charges have to keep step to improve service delivery. Second, there is limited scope for Tamil Nadu to increase its own tax revenues under the existing taxation powers conferred on states. Third, the increased infrastructure and social spending using newly created fiscal space (if fiscal reforms are successful) can only be gradual, and even in the long term cannot be increased rapidly if economic growth is not accelerated and if tax powers are limited. Fourth, it will take time for infrastructure and social spending to translate into tangible benefits.

The reform program of the government made a good beginning and its impact is positive in the fiscal turnout upto 2003/04. However, recent policy choices of reversing critical reforms already undertaken will impede expenditure restructuring efforts and jeopardize the gains made thus far. This poses a threat to fiscal consolidation besides affecting the credibility of the MTFP and fiscal and budgetary discipline. Particularly in the power sector, the government seems to have painted itself into a corner, and it is hard to see how in the current environment any plan for financial recovery can be worked out. If, as seems likely given what has just happened, there are no further tariff increases before the next state election, expected in 2006/07, power sector losses could, in that year, exceed what it projected in the reformist business plan by as much as Rs 2,000 crore or more than 1% of GSDP. In such a scenario, the consolidated deficit will be back at or above pre-reform levels, and productive spending will be crowded out by power subsidies. Tamil Nadu has no choice but to return to the path of fiscal
consolidation. Otherwise the success of the reform program initiated by the Government looks uncertain with every possibility of the state reverting to the fiscal distress highlighted in GoTN’s 2001 White Paper.

**Investment Climate:** The reform agenda deals with not only regulatory policies and practices concerning all factor markets (labor, land, and capital), but also regulation of entry/exit and tax policy and administration. Further, removing substantial infrastructure bottlenecks—power, road network, water supply, etc.—top the reform agenda. The wide scope of issues is not surprising, given that international competitiveness involves all critical chains of investment, production and marketing. The agenda will thus require an institutionalized dialogue between the Government and the private sector for setting priorities and finding solutions. The private sector must be a sounding board and source of information in formulating policy for the business environment.

Priority reforms comprise of the following areas: labor market flexibility; a more responsive urban land supply system; a more efficient tax policy and administration; continuing reform of entry and operation; power sector reform; and scaling up PPP for sustainable infrastructure development. Many of the issues concerning investment climate are exclusively or largely within the purview of the central government. This report confines itself to options for the reform agendas which are partially or mainly within the purview of the state government. These are presented at Annex 3. It must be recognized that there is a balance between comprehensive reform and strategic selectivity. Therefore, the proposed agenda serves as a menu of options from which a strategic yet programmatic reform agenda could be formulated based on the Government’s own internal consultation, opportunities and constraints. Many of the proposed reforms involve complex institutional reform that will take efforts beyond the medium term.

**Agriculture.** Traditional sources of agricultural growth in Tamil Nadu face major constraints. Seasonal water shortages, increasing land degradation, continually shrinking farm sizes and rising costs of agricultural labor represent serious constraints that need to be overcome if future growth in agriculture is to be realized. Given the existing constraints, diversification into less water-intensive higher-value products, including fruits, vegetables, spices, and livestock products, is one of the most promising avenues for increasing agricultural growth. Tamil Nadu's agro-climatic conditions are well suited to diversified agriculture. Furthermore, rapidly increasing incomes and changing food demand patterns provide strong impetus for diversification. Increased agricultural diversification and private investments in processing for many of the higher valued agricultural commodities are likely to generate new rural non-farm employment opportunities and contribute to higher rural incomes. Contract farming and other private sector initiatives should be encouraged, though the impact of these business arrangements on farmer incomes should be evaluated, as well.

Overcoming the constraints faced by the agricultural sector in Tamil Nadu, and accelerating growth in agricultural production and the rate of rural poverty reduction, will require appropriate policies and investments in four priority areas: improving the efficiency of water use; increasing the effectiveness of public expenditures and agricultural extension; spurring the development of agricultural markets; and maximizing the real income growth of the rural poor.

More specifically, there are several options that Tamil Nadu could consider to manage its scarce water resources. These include: scaling up the pilot river-basin framework for managing water.
resources holistically, allowing interagency coordination and public-private partnerships; introducing specific legally enforceable water entitlements to various users in a river basin and or aquifer framework; changes in electricity, water and crop prices to change the financial incentives for irrigation and crop choice; improved management practices and irrigation technologies (such as drip and sprinkler irrigation) and new investments in canals and water storage (coupled with improved operation and maintenance).

Tamil Nadu is the only state in India without a separate department of irrigation: administration of irrigation in the state is part of the Department of Public Works. Two new agencies are needed: a regulatory agency to allocate the share of water resources to agriculture, industry and other uses, and an irrigation department focusing on irrigation delivery systems.

Re-introduction of agriculture power tariff (both flat rate on pump sets and metered) became a highly contentious issue in Tamil Nadu during national elections and were reversed. International experience with income support programs also provides several important lessons for providing clear incentives and containing fiscal costs, including the need for targeting to poorer farmers (e.g., paying more per hectare as farm size increases, with a ceiling on the numbers of hectares eligible for payment), an effective delivery system for the transfer payments, and a limit on the number of years for which producers will be eligible for payments.

Gradual step towards marginal cost pricing of electricity, (perhaps combined with compensation to farmers in the form of income transfers or a more reliable electricity supply), would help rationalize water use in Tamil Nadu. Metering of farmers is critical to link agricultural tariffs to consumption levels. Metering will also enable power subsidy to be better targeted. If farmers costs and incomes varied according to the amount of electricity (and water) used with well irrigation, farmers would have an incentive to shift some land from water-intensive crops (rice and sugar cane) towards less water-intensive crops (including cotton, maize and vegetables). Greater attention to marketing infrastructure, strengthening the research and extension system to meet the needs of diversified agriculture, the development of tools for farmers to better manage risks, and improving irrigation pump set efficiency may create an environment within which higher power charges would be more palatable for farmers.

It is important to sequence the raising of water and electricity tariffs as part of broader package of coherent policy and institutional reforms. These reforms are: decentralizing a traditionally top-down centralized extension system; facilitating efficient agricultural markets; developing a rural credit market, and developing an insurance and safety net program to cushion against the risk of diversification particularly for small and marginal farmers who rely mainly on agriculture subsistence income; and a delivery package to improve farmer income associated with gradual adjustment of input pricing.

Greater attention is also need for scaling-up the adoption of water saving irrigation technologies and modernizing irrigation infrastructure. Improving the productivity of rainfed agriculture will require new investments and increased emphasis on community participation with sound technical inputs to improve the success of watershed programs. A basin perspective should be adopted in implementation of all watershed programs to ensure that these initiatives do not have negative impacts on downstream human and ecological uses.

Rationalizing public expenditures and shifting expenditures from subsidies to investments in key public goods such as rural roads, markets and
agricultural research and extension will facilitate productivity improvements and diversification of agriculture to higher value products.

**Poverty Monitoring and Evaluation.** There appears to be a case for paying special attention to the rural areas in the Coastal North and the South, and possibly to the urban areas in the Coastal North. Scheduled Castes and Scheduled Tribes (SC/STs) also appear to face particular barriers to upward mobility, and the data suggest that these stem at least in part from three sources: access to land, education, and regular non-farm employment. Indeed these three barriers, although especially acute for SC/STs, tend to be characteristic of the poor more broadly. Addressing them will therefore be a vital part of any poverty alleviation strategy pursued by the state. Given that the Tamil Nadu government has been laying increasing emphasis on assisting women, it would no doubt be useful to systematically identify the challenges facing poor women. Constraints on employment and earnings appear to be an important deterrent to upward mobility amongst women, as well as other disadvantaged demographic groups, especially SC/STs.

Developing a comprehensive poverty reduction strategy will involve more investment in poverty monitoring. This is obviously a grand undertaking, but the recent BPL survey is an important step in this direction. It asks a number of important questions regarding household characteristics, including income, asset ownership, and a few occupational and demographic characteristics. Since it is a census, the BPL is amenable to the addition of modules, which could be used to acquire data representative at least at the district level.

The GoTN expends considerable thought and effort in undertaking, the formulation of goals and identification of targets for its anti poverty programs. However, different programs are not always coordinated, with multiple, overlapping and sometimes conflicting objectives. Encouragingly, however, many schemes appear to be, or have the potential to be, broadly focused on issues which data suggest are important to the poor. More needs to be done regarding the design and implementation of poverty alleviation schemes.

Monitoring and evaluation (M & E) requires strengthening. This is not a problem particular to Tamil Nadu: it is common to all of the states in India, as it is to most of the developing world. Monitoring of extant anti-poverty policies and social services more generally is, however, important if one is to gauge whether implementation is proceeding according to plan and achieving its stated objectives. This is a continuous process, instrumental in identifying problems to be addressed. Impact evaluation involves isolating the effects of a particular policy — assessing its effect on welfare and living standards. The GoTN is an ideal agent for engaging in M & E, given its voluble commitment to combating poverty, openness to receiving feedback, and rich human capital resources. Impact evaluations are most appropriate to programs which are innovative, replicable, involve substantial resource allocations, and have well-defined interventions. It is also obviously the case that impact evaluations are best conducted on policies which are viewed as important to social welfare.

**Service Delivery and Public Administration:** The following measures are suggested for improving the efficiency of Government administration: (a) Implementation of the SERC recommendations across departments and the Secretariat over a three year time-period, resulting in the elimination of surplus posts; (b) Introduction of a computerized file-monitoring system to reduce delays in file movement, in conjunction with level-jumping, the single-file system, and greater delegation of powers; (c) The Government has already issued a Government Order on transfers
covering the entire civil service. The creation and implementation of a public transfer database on the Internet to track transfers will provide a basis for formulating additional measures to improve the transfer process including computerized counseling in health and education and adopting legislation to limit transfers; and (d) Creating a human resource database for civil servants' to facilitate better employee tracking, forecasting, and career planning.

**Reducing Corruption:** (a) Creation of an independent institutional mechanism to focus on corruption and grievance redressal in service delivery, and greater transparency in the functioning of DVAC (e.g., tabling of reports within three months of their submission, creation of a public website with data on complaint numbers/types, pendency rates, and outcomes over time); (b) Adoption of a new Tamil Nadu Right to Information (RTI) Act, with minimum exceptions, strong suo-motu disclosure provisions, and independent appeals process; and (c) Implementation of further procurement reforms.

**Strengthening Service Delivery:** (a) Revision of citizen charters' for agencies with large public interface on a priority basis (e.g. district hospitals) and use of surveys to provide feedback; (b) Continuation of service delivery improvements in key agencies (e.g., Registration, Transport, Revenue, and Public Distribution System); and (c) Expansion of E-Governance by promoting single-point delivery of services, beginning with Chennai, and the spread of rural information kiosks.

Electoral politics and capacity constraints may lead to reform uncertainty and political sensitivity to many reforms. What is critical is the political commitment to reform, as well as the sequencing and prioritization of reforms, and careful managing of trade-offs in reform gains, costs, and risks. To do so, it is important to build a broadly-shared consensus through public debate and to carefully design a minimum set of policies and programs to compensate for the impact of reform, so as to maintain a critical mass of support for reforms to proceed. GoTN’s capacity to manage a complex and growing reform agenda requires strengthening. Substantial capacity building and broad-based knowledge partnerships can help address the management of reforms in priority areas such as water resources management, agriculture diversification, public expenditure management, and public-private partnerships in infrastructure financing and development.
Move to a functional structure. Moving from a territorial to a functional structure in the commercial tax administration is probably the single most important reform initiative the Tamil Nadu government can take to reform tax administration. The reorganization would have to be carried out at the headquarters and territorial levels. It would create the necessary organizational basis for separating and strengthening the key tax administration functions of registration, audit, collection, and taxpayer services. Figure A1.1 outlines a typical functional tax administration structure.

In order to mitigate risks and develop a clearer understanding of the operation of a functional tax administration, the reorganization could be implemented in stages and begin with a pilot site. The establishment of a new large taxpayer unit in the Commercial Tax Department would offer an ideal venue for such a pilot.

Create a special structure for large taxpayers. A small number of large traders contribute the bulk of sales tax collection in Tamil Nadu. To address the compliance risks and the special service needs of this group of taxpayers, the government should set up a special large taxpayer unit responsible for the administration of the largest 200-500 traders in the country, and staffed with

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23 Currently, the largest 400 taxpayers representing 0.37% of assessments account for 75% of total sales tax collections.
senior and experienced tax officials. Such a unit would also considerably facilitate the introduction of a VAT. As discussed above, the unit should be organized along functional lines.

- **Streamline the territorial structure of tax administration:** Following the successful piloting of the functional structure in the large taxpayer unit, the reorganization needs at the territorial level should be addressed. The current 323 assessment circles should be abolished and tax administration tasks transferred to the 40 district offices. Circle offices would, however, be maintained and transformed into service posts where appropriate.

- **Strengthen the human resources of the Commercial Tax Department:** A professional and specialized tax administration requires an appropriate level of highly qualified staff. This requires increasing the percentage of senior staff at officer level in the administration.

- **Strengthen the enforcement function:** A total of 4,646 inspections of dealers were conducted in fiscal year 2001/2002. These inspections resulted in the assessment of additional taxes and penalties amounting to Rs.211.86 crore, which accounts for only 3% of total sales tax collections. Enforcement productivity is thus extremely low. To enable the department to counteract tax evasion more effectively requires strengthening risk analysis for case selection; moving from a routine desk inspection to a targeted field inspection system; introducing an enforcement management system with clear plans and regular review of performance of enforcement units; and training of professional staff.

- **Establish a vigilance unit:** The Commercial Tax Department has an audit wing responsible for internal audit of its operations. The audit wing focuses primarily on reviewing the correctness of the assessment work, but does not assume responsibility for ensuring integrity and countering corruption in the tax administration. To investigate taxpayer allegations against tax officials and detect corrupt practices and officials in the department, a special vigilance unit should be established.

- **The current commercial tax system has two unusual features that complicate compliance by the business community:** First, the current sales tax system is not based on self-assessment. Temporary self-assessment is possible only for a small group of small taxpayers with a turnover of less than Rs.10 crore and-in the case of the sales tax-only if the taxpayer declares a 10% increase in the taxable turnover over the preceding year. Modern tax administrations, however, have moved to a universal self-assessment scheme for sales tax/VAT and have, when the scheme is introduced in phases, started not with small taxpayers, but with the small group of large taxpayers, for which self-assessment is more feasible and important. A review of the self-assessment approach chosen and the development of a roadmap for moving to universal self-assessment will therefore be required. Second, efforts should be made to facilitate the registration process for sales taxpayers and, in future, for VAT taxpayers. The process is comparatively long-almost one month-while many tax administrations manage to register taxpayers within 72 hours from the moment of filing the application. The Government is, understandably, concerned about the risk of registering non-existent
or fly-by-night firms, and efforts to reduce these risks are perfectly justified. Nevertheless options should be considered to make the registration process more taxpayer-friendly, without neglecting the need to mitigate risk. The options should also include reviewing the requirement to re-register businesses periodically and charging annual registration fees.

- **Tamil Nadu faces substantial problems in determining the taxable value of real property and enforcing payment of stamp duties for property transfers.** Valuation for stamp tax purposes is based on a guideline value, which is determined by a Value Fixation Committee. Guideline values are frequently subject to disputes and are not upheld in court. Taxable transactions are either not reported to the Registration Department, or the registration is delayed. Frequent use of fake stamps causes additional revenue losses, so that the actual tax revenues collected by the Registration Department are far below the revenue potential.

- **Problems in collecting stamp duties, especially on real estate transfers, cannot be addressed exclusively from a tax administration angle.** They are part of a broader problem of keeping up-to-date records on property ownership and sales. A well-functioning cadastre system is necessary for eliminating the possibility of unrecorded property transfers. A revision of cadastral records therefore needs to be launched. Tamil Nadu can benefit in this respect from the experience of some states that have embarked on this exercise already; in particular the experience of Uttar Pradesh and Karnataka with using satellite technology for this purpose could be relevant. On the tax side, the interest and penalty system for delayed applications for registering property transfers needs to be reviewed. Efforts to set more reliable property values need to be pursued, in particular by establishing a Central Valuation Committee, following the recommendation of the Empowered Committee of State Finance Ministers and the positive experience with the operation of such committees in other states. Further computerization of the valuation process, taking into account experience in Andhra Pradesh, and especially in Maharashtra, could facilitate property valuation. Valuation for stamp duty purposes and for assessment of the urban land tax could be harmonized. The overall result of the reform process should not only be an increase in stamp duty collections, but a quicker processing of registration requests, which would support a more dynamic real estate market.
Annex 2

Budget and Financial Management Reforms

Budget and Policy Formulation

Strengthening policy formulation
- Establish an apex Policy Reform Committee linked to a network of policy research institutes/universities to upgrade quality of policy proposals.
- Establish an annual forum with stakeholders to report on development progress and to invite comments on proposed policy initiatives.

Strengthening budget formulation
- As a priority, develop capacity to undertake multi-year revenue forecasting in Department of Finance.
- Formalize the functioning of a standing Expenditure Review Committee as part of the annual process of reviewing budget submissions to eliminate unproductive programs and improve efficiency of existing programs.
- Ensure budget preparation process encompass expenditures due to all "new policy, provision of a new facility, or any substantial alteration in character or extent of an existing facility."
- Eliminate policies or schemes that violate established budgetary review and vetting process.
- Initiate time-bound implementation of expenditure rationalization recommendations of the Staff and Expenditure Reform Commission.
- Establish a working group to (a) develop recommendations on rationalization and accessibility of budget documentation and (b) update the budget manual.
- Initiate Zero-Base Review of Schemes and programs; close those with doubtful benefits and merge others, which are similar in nature post review.
- Adjust budget schedule to ensure that the Appropriation Act is passed by the beginning of the fiscal year.

Strengthening budget execution
- Initiate and complete a full review of budget execution procedures (cash management, release of cash or letters of credit and payment, control processes, predictability and scope for departmental virement) to identify factors that contribute to under-spending, arrears, end-of-year spike in spending, etc. Implement recommendations from such review.
- Introduce quarterly circulars providing departments with information on anticipated cash disbursement/letter of credit limits for next quarter.
Delegate greater financial powers to allow managers more discretion in managing inputs. Provide departments with greater authority over discrete blocks of budget appropriation and increasing the unit of parliamentary appropriation.

**Improving fiscal accounting**
- Adopt a clear and internationally standard definition of the fiscal deficit to be reported in the fiscal accounts.
- Initiate improvements to accounting system within the current system.
  - Prepare and publish regular reports on fiscal and revenue deficit.
  - Monitor and report payment obligations, arrears and guarantees issued.
  - Discourage and limit transfer of resources from consolidated fund of the state to the public account.
  - Improve timeliness and comprehensiveness of reconciliation of accounts across treasury, department and accountant general.

- Develop and implement a medium term strategy for networked computerization of financial transactions and records and adoption of department-based financial management.
- Improve and strengthen the internal audit function.

**Taxation Policy and Administration**

**Tamil Nadu**'s own tax revenue effort is amongst the highest in Indian states. Nonetheless, there is considerable room for improving the efficiency, equity and administration of the tax system to increase revenue yield and investment friendliness.

**Tax policy**
- Continue preparation for the introduction of the VAT; and prepare appropriate legal acts to levy tax on goods and services that should cover taxes such as the Special Additional Sales Tax and some type of presumptive taxation applicable to small dealers not covered by the VAT.
- Consider to switch State Excise from the current specific excise to ad valorem levied on the Maximum Retail Price of alcoholic beverages.
- Streamline duties on dutiable instruments (especially financial instruments), moving some to ad valorem. Minor duties may be either abolished or increased to justify the collection costs.
- Consider raising non-transport vehicle lifetime taxes to 8% in line with some other states. Revamp fees for permits, registration, licenses, fitness certificates on motor vehicles, increasing revenue potential from road tolls, and raise the "green tax." In addition, part of the road user charges can always be incorporated into the fuel/diesel price through increased sales and/or excise taxes.
- Abolish Entry Tax on motor vehicles and goods upon introduction of VAT.

**Tax Administration**

**Short term**
- Prepare a five-year tax administration reform strategy.
• Streamline reporting and accountability arrangements for revenue collection.

• Establish a Central Valuation Committee for fixing guideline values.

• Establish a vigilance unit in the Commercial Tax Department (CTD).

• Issue a uniform taxpayer identification number and revise taxpayer registration process.

• Create a pilot Large Taxpayer Unit (LTU) in the CTD, structured along functional lines.

Medium-term

• Prepare an annual audit plan and training for auditors.

• Prepare a HR audit and training plan.

• Introduce self-assessment for large taxpayers.

• Start roll-out of LTU concept.

Long-term

• Full roll-out of LTU concept: move to a functional tax administration organization.

• Abolish assessment circles and transform circle offices into service points where appropriate.

• Transfer responsibility for collecting other taxes to CTD.

Expenditure Reform

Pension Reform

Year 1

• Produce assessment of transition costs of moving from pay-as-you-go financing to funding. The government will have to pay half of the overall contribution as employer. This has fiscal implications that depend on the chosen contribution rate and, more importantly, on how many current civil servants are allowed / encouraged to move to the new scheme. The 'transition cost' must be in line with fiscal realities.

• Determination and announcement of parameters of the new defined contribution scheme. A series of parameters remain to be determined before the scheme can be started. Key among these is the contribution rate, the retirement age, the payout options and the treatment of the GPF account. These may be influenced by GoI’s recent announcements in these areas.

• Determination and announcement of rules regarding the choice between the existing defined benefit (DB) scheme and the new defined contribution (DC) scheme for those already participating in the former. The conditions of this option must be designed in line with fiscal plans.

• Implementation of new information systems required to track individual accounts for members of the defined contribution scheme on a regular basis for government offices in Chennai.

Year 2

• Dissemination of information regarding the pension system options available to civil servants. Civil servants faced with a choice as to whether to stay in the current DB scheme or move to the new DC scheme should be provided with adequate information. (This assumes that there is a choice rather than a mandate).

• Implementation of information system for tracking individual accounts in the defined contribution scheme to at least 90 percent of eligible government employees.
• Development of plan to link new scheme to the infrastructure created under the Pension Fund Regulatory and Development Authority.

• Adopt revalued lifetime average earnings to plan for the target replacement rate when designing the provisions of the defined contribution scheme.

• Index pensions automatically to price increases instead of ad hoc wage indexation every 10 years through Pay Commissions.

Salary control
• Continue staff rationalization as per the Staff Expenditure and Reform Commission's recommendations.

• Link wage indexation decisions to capacity to pay.

Subsidy reduction
• Improve targeting of the poor in the PDS by incorporating income/asset criteria and gradually raise public distribution system price of rice to BPL issue price of the Government of India.

• Evolve guidelines to manage growth in grants-in-aid of salary expenditure to higher educational institutions and private aided schools.

• Audit subsidies and phase out subsidies of doubtful benefit.

Improving capital outlay and non-wage O & M
• Reallocate expenditure towards non-wage O & M expenditure in critical sectors and capital outlay.

• Leverage capital outlay to scale up public private partnerships.

• Progressively reduce budgetary support to Public Sector Enterprises and cooperatives through different means such as loans, grants, waivers, non-recovery and Ways & Means support.

Reform of Public Sector Enterprises

State Transport Units
• Continue containment of salary and pension growth.

• Continue to reduce operational loss.

• Improve staff/bus ratio.

• Implement phased program of privatizing select routes and services, subject to legal case in the court being ruled in favor of the government.

Other public sector units and cooperatives
• Formulate a time line for restructuring and divestment and transparent guidelines for divestment.

• Formulate a strategy and action plan for sales of assets and divestment.

• Carry out environment audit for units to be closed/sold.

• Conduct training and counseling program for retrenched workers.

Power sector reform
• Formulate and implement a comprehensive reform program addressing the need for sector restructuring for transition to a financially viable power sector—in accordance with the requirements of India’s new Electricity Act 2003 (Act) as well as specific needs of the state.

• Increase cost recovery from domestic power consumers.
• Limit TNEB’s borrowing requirement.

• Combine metered power supply to agriculture with a package deal to improve agricultural services delivery combined with marginal cost recovery level power tariff, efficient pump sets, less water intensive crops, and direct subsidy to the poor.

• Address high power purchase costs and introduction of competition in the power sector.

• The open access provisions in the Act, if carefully implemented, can result in substantial private investments in generation with reasonable costs.

• Improved cost recovery from rural areas to be planned to balance increase in costs with improved service delivery, so as to prepare for the reduction in cross-subsidy.

Management of Debt and Contingent Liabilities

• Eliminate off-budget borrowings.

• Continue debt swaps and seek extension of swap scheme to other costly borrowings.

• Eliminate the existing system of incentives for mobilizing small savings.

• Abide by the limit on risk weighted guarantee limits under FRA.

• Establish a set of formal rules to govern eligibility of PSUs, cooperatives and statutory boards for government guarantee. The rules could take into account financial statements, record of profitability, performance on past guarantees, priorities of government, etc.
Labor market flexibility

Within the constraint of national legislation, the state government can explore ways to rationalize the legal framework governing labor and statutory compliance requirements to create elbow room for contractual labor relationship and for easing threshold for retrenchment. More specifically, the following can be considered.

**Short term**

1. Carry a complete review of the entire spectrum of Labor Laws governing Tamil Nadu and the machinery needed to implement these laws.

2. Bring in flexibility to Factory Act on working hours, overlapping of shifts, work days, working on holidays either through State Amendments of the Act or through exemption under section 65.

3. Bring in State Amendments to the Contract Labor (Regulation and Abolition) Act 1970. Through the amendment, redefine what constitutes a "core" activity and reclassify many activities to the "non-core" list, allow hiring of contract labor in activities, like sanitation works, security services, canteen and catering services, health services, courier services, gardening and maintenance services, transport services, and other activities of intermittent nature even if they constitute core activities (e.g. hiring contract labor in production line to meet unexpected export orders). Furthermore, the decision should be left with the firms to decide what is core and non core.

4. Amend the notifications under the Shops and Establishment Act to remove inflexibility regarding working hours and also dismissal of employees.

5. Review licensing procedures in all the labor related laws to remove unnecessary procedures, simplify and ensure compliance.

6. Remove inflexibilities introduced in the past by the state related to the Industrial Disputes Act. Initiate State Amendments to amend Chapter VB like Maharastra government and perhaps follow the example of the Andhra Pradesh government, which is the process of initiating amendment to Chapter VB to raise the number to 1000.

**Medium term**

1. Amend Section 16 of the Trade Union Act, 1926, which contemplates constitution of a separate fund for political purposes. Empower the Registrar of Trade Unions to adjudicate upon a dispute as to which of the office bearers are validly elected and limit the number of unions in any establishment.

2. Initiate State Amendments to the Industrial Disputes Act 1947 and Shops and
Establishment Act to allow termination under reasonable grounds, differentiation between the termination of temporary and permanent employee, introduction of probation period and confirmation period, removal of compulsory regularization of a person who works for more than 2 years and to provide for court awarded compensation instead of reinstatement and permitting compulsory retirement under the Industrial Disputes Act.

3. The Presiding Officers of the Labor Courts to be given Special Training or to have trained personnel for the resolution of the disputes.

4. Evaluate the need for Minimum Wages Act (1948) and Rules (1950). Extend exemption if necessary.

Longer term
1. Consolidate the 27 Central and 7 State Laws into Industrial Relations and labor matters.

Like most other developing countries, steps need to be taken to consolidate labor regulations to 5 main legislation to govern, first the relationship between employer and employee (Employment Act), second to govern quasi judicial body that arbitrates between employer and employee (Industrial Disputes Act), third to govern the activities of employees in unions (Trade Unions Act), fourth to govern welfare and compensation (Workman Compensation Act) and fifth to govern safety and security at work (Occupational Safety Act).

2. Carry out institutional reengineering to make the regulation of labor effective and cost efficient.

3. Consider establishing an independent body like Labor Regulatory Authority to deal with retrenchment and closure of factories.

Urban land market reform
The focus should be on rationalizing regulations on zoning and development controls, project approval and land acquisition processes, and developing a more effective planning and management system to facilitate infrastructure development.

1. Initiate a land market assessment in the Chennai metro area and select towns to identify an inventory of publicly owned land.

2. Complete a thorough review of real estate and land development regulations (regulatory audit).

3. Identify needed reforms.

4. Prepare report on the results of the assessments.

5. Hold series of meetings with government and private sector stakeholders on the results.

6. Follow up support to assist government and private sector to implement reforms.

7. Monitor implementation of reforms and assess and evaluate their effects.

Streamlining regulations of entry and operation
1. Work with private sector representatives in the construction and real estate business to review problems in entry regulations.

2. Develop an action plan to ease entry regulations.

3. Identify clearance delays if any.

4. Complete the ongoing exercise of reforms to consolidate 53 returns/registers into one common form.
5. Extend the simplified entry approval system for large investment projects (Rs.250 million) to cover small and medium projects as well.

**Scaling up private sector involvement in infrastructure service delivery**

The government has announced plans to establish an Infrastructure Development Board and an infrastructure fund of Rs.200 crore in the 2003 Industrial Policy. A Infrastructure Development Enabling legislation is being prepared. All of them aim to scale up public and private partnership in the development of infrastructure. In going forward, key issues the government may consider are:

1. Reduce dependence on national and state budgets by promoting access of Urban Local Bodies, utilities and government agencies to adequate and sustainable sources of infrastructure finance.

2. Strengthen creditworthiness of local bodies and state utilities for accessing private capital by providing selective credit enhancement where required to enable them to set a track record for future borrowings.

3. Develop financing mechanisms with targeted use of state government contribution and guarantees and link municipal financing with domestic capital markets.

4. Choose and select projects which best fit state/local priorities for economic development and have sound economic value.

In order to mobilize financing in a robust PPP framework, the following essentials would need focus:

1. Develop an appropriate and comprehensive regulatory environment which establishes rules of the game for PPP and Private Sector participation; determining service ownership, developing legal framework for concessions, contract enforcement, bankruptcy and lender remedies.

2. Bring about financial discipline and enhance revenues through, depoliticising tariffs/user charges, implementing overall cost recovery and creating dependable infrastructure revenue streams.

3. Link state transfers to performance benchmarking for ULBs and utilities.

4. Build and enhance capacity in local bodies for project design and structuring, project evaluation, contracting and implementation, financial planning, budgeting, and strategic planning.
# Fiscal Data Annex

## 1.1 (a): Fiscal Summary

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* Power Sector Numbers for 2003/04 are forecasts from the business plan. In 2003/04 the actual consolidated fiscal and revenue deficit are higher by Rs. 10 bn according to the Government. Since details are not available this has not been incorporated into this table. The actual consolidated fiscal deficit in 2003/04 is 3.8% of GSDP.
11 (b): Fiscal Summary (% GSDP)

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<td>TN Primary Surplus (+)/deficit (-)</td>
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<td>-0.5%</td>
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<td>Go TN Revenue Surplus (+)/deficit (-)</td>
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<td>Go TN Fiscal Surplus (+)/deficit (-)</td>
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<td>GSDP (Rs. billion)</td>
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<td>430.1</td>
<td>574.8</td>
<td>687.5</td>
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<td>894.9</td>
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1.1 (b): Fiscal Summary (% GSDP) (continued)

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<td>Cash Operating Expenditure (excl. Depreciation)</td>
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<td>Net Loss/Profit (excl. Depn) before Subsidy (+/-)</td>
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* Power Sector Numbers for 2003/04 are forecasts from the business plan. In 2003/04 the actual consolidated fiscal and revenue deficit are higher by Rs. 10 bn according to the Government. Since details are not available this has not been incorporated into this table. The actual consolidated fiscal deficit in 2003/2004 is 3.8% of GSDP.
### 1.2 (a): First Medium Term Fiscal Policy

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### 1.2 (a): First Medium Term Fiscal Policy (continued)

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* Power Sector Numbers for 2003/04 are forecasts from the business plan. In 2003/04 the actual consolidated fiscal and revenue deficit are higher by Rs. 10 bn according to the Government. Since details are not available this has not been incorporated into this table. The actual consolidated fiscal deficit in 2003/04 is 3.8% of GSDP.
### 1.2 (b): First Medium Term Fiscal Policy (% GSDP)

#### Projections

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<td>Non-Wage O &amp; M</td>
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<td>Other Revenue Expenditures</td>
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<td>Subsidies and Transfers</td>
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<td>Transfers</td>
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<td>2.3%</td>
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</tr>
<tr>
<td>Capital Outlay</td>
<td>1.3%</td>
<td>1.3%</td>
<td>1.6%</td>
<td>1.7%</td>
<td>1.8%</td>
<td>2.0%</td>
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<tr>
<td>Net Lending</td>
<td>0.2%</td>
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<td>0.2%</td>
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<tr>
<td>TN Primary Surplus (+)/deficit (-)</td>
<td>-1.9%</td>
<td>0.3%</td>
<td>-0.8%</td>
<td>-0.3%</td>
<td>0.3%</td>
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<td>Interest Payments</td>
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<td>Go TN Revenue Surplus (+)/Deficit(-)</td>
<td>-3.0%</td>
<td>-0.9%</td>
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<td>Go TN Fiscal Surplus (+)/Deficit(-)</td>
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<td>-2.4%</td>
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<td>-2.8%</td>
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<td>GSDP (Rs. billion)</td>
<td>1537.3</td>
<td>1705.3</td>
<td>1793.1</td>
<td>1945.5</td>
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<td>Revenue (Excl. Power Subsidy)</td>
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<td>7.1%</td>
<td>7.2%</td>
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<td>Cash Operating Expenditure (excl. Depreciation)</td>
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<td>6.4%</td>
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<td>6.5%</td>
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<td>6.7%</td>
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<td>Earning before Int, Depn, Tax &amp; Appropriation (EBIDTA)</td>
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<tr>
<td>Net Loss/Profit (excl. Depn) before Subsidy (+/-)</td>
<td>-0.8%</td>
<td>-0.1%</td>
<td>0.1%</td>
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<td>0.2%</td>
<td>0.7%</td>
<td>0.7%</td>
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<tr>
<td>Capital Outlay</td>
<td>0.9%</td>
<td>0.9%</td>
<td>0.9%</td>
<td>0.8%</td>
<td>0.6%</td>
<td>0.8%</td>
<td>0.7%</td>
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<tr>
<td>Overall Financing Requirement before Subsidy (+/-)</td>
<td>1.7%</td>
<td>1.0%</td>
<td>0.8%</td>
<td>0.6%</td>
<td>0.4%</td>
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## 1.2 (b): First Medium Term Fiscal Policy (% GSDP) (Contd...)

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<td>Revenue Expenditure</td>
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<td>Capital Outlay and Net Lending</td>
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<td>Consolidate Revenue Surplus (+) / Deficit (-)</td>
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<tr>
<td>Consolidated Surplus (+)/ Deficit (-) (9) = (1)-(8)+(11)</td>
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<td>Gross Borrowing Requirement</td>
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<td>GoTN Fiscal Deficit (10)</td>
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<td>o/w Gross Budgetary Support to Power (11)</td>
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<tr>
<td>Power Subsidy</td>
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<td>Capital Outlay &amp; Net Lending</td>
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<td>Non - Power Deficits (12) = (10) + (11)</td>
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<td>Debt Stock of GoTN</td>
<td>28.2%</td>
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<td>Guarantees</td>
<td>6.0%</td>
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<td>GoTN Debt and Guarantees</td>
<td>34.1%</td>
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</tbody>
</table>

* Power Sector Numbers for 2003/04 are forecasts from the business plan. In 2003/04 the actual consolidated fiscal and revenue deficit are higher by Rs. 10 bn according to the Government. Since details are not available this has not been incorporated into this table. The actual consolidated fiscal deficit in 2003/04 is 3.8% of GSDP.


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2005

The World Bank