

**PROJECT INFORMATION DOCUMENT (PID)  
APPRAISAL STAGE**

Report No.: PIDA16563

<b>Project Name</b>	Second Tamil Nadu Road Sector Project (P143751)
<b>Region</b>	SOUTH ASIA
<b>Country</b>	India
<b>Sector(s)</b>	Rural and Inter-Urban Roads and Highways (80%), Public administration- Transportation (20%)
<b>Theme(s)</b>	Trade facilitation and market access (50%), Infrastructure services for private sector development (30%), Managing for development results (20%)
<b>Lending Instrument</b>	Investment Project Financing
<b>Project ID</b>	P143751
<b>Borrower(s)</b>	Department of Economic Affairs
<b>Implementing Agency</b>	Government of Tamil Nadu
<b>Environmental Category</b>	A-Full Assessment
<b>Date PID Prepared/Updated</b>	17-Dec-2014
<b>Date PID Approved/Disclosed</b>	17-Dec-2014
<b>Estimated Date of Appraisal Completion</b>	22-Dec-2014
<b>Estimated Date of Board Approval</b>	20-Feb-2015
<b>Decision</b>	

**I. Project Context**

**Country Context**

Among India's states, Tamil Nadu is the 6th most populous state and ranks 4th in terms of economic importance. The state contributed to about 8.6% of the country's Gross Domestic Product in 2013-14 and over the past five years (2008-14), its Gross State Domestic Product (GSDP) has grown at an average of about 8% per annum, which is higher than the national average (of about 6%). The state's per capita income has grown at a Compound Annual Growth Rate (CAGR) of almost 8% over the period 2008-14, to reach Indian Rupee (INR) 62,589, which is about 57% higher than the national average (INR 39,904).

Transport infrastructure serves as the linchpin for other major sectors underpinning the State's GSDP. About 62% of the GSDP comes from the services sector, with predominant contributions from Trade, Hotels & Restaurants, Real Estate, Ownership of Dwellings & Business, and Transport Storage & Communication—all of which involve significant movement of goods and people. The industry sector, which accounts for 30% of the GSDP, is dominated by mining, quarrying, construction, automotive and textile sub-sectors, which are transport-intensive and spread across the

state. In comparison, the agriculture sector contributes only 7.4% to the GSDP, but plays a significant role in providing direct employment; nearly 50% of the state's workforce consists of commuters, cultivators and agricultural laborers spanning large geographical areas across the state. Thus, the demand for transport infrastructure is expected to increase with GSDP growth.

### **Sectoral and institutional Context**

The Highways Department (HD) of Tamil Nadu is responsible for managing about 62,000 km of the state's road network, which comprises National Highways (NH, 4,974 km, 8%), State Highways (SH, 11,594 km, 18%), Major District Roads (MDR, 11,289 km, 19%) and Other District Roads & Sugarcane Roads (ODR, 34,160 km, 55%). The HD is organized mainly along the lines of function, funding or schemes. Since its establishment in 1946, the HD has nearly doubled the road network.

State's achievements in the road sector. Over the last decade, the Government of Tamil Nadu (GoTN) and its HD, in collaboration with the World Bank, has accomplished the following notable achievements: (a) Enhanced the capacity and quality of road network: The size of the primary network comprising of NH, SH and MDR has expanded by nearly 50%, from 18,375 km to 27,857 km; and within the Core Road Network (CRN) comprising of SH and MDR, the percentage of roads with less than 2-lane width has decreased from 60% to 38% and the percentage of roads in poor condition has reduced from about 35% to 8%.; (b) Increased expenditure: During the Ninth Plan Period (1997-02), the GoTN on an average spent INR 6.5 billion (USD 108 million) per annum in the sector. In comparison, road sector expenditure during 2009-14 increased from INR 36.9 billion (USD 615 million) to INR 54.8 billion (USD 913 million), at a CAGR of 11%. (c) Enhanced allocations to maintenance: Maintenance of roads has been receiving positive attention in terms of increasing allocations over the years. Over the last five years, the expenditure towards maintenance increased at a CAGR of 18% and, at around 48% of the total expenditure is almost equaled the expenditure on asset creation and upgrading; and (d) Improved road safety performance through launching of a Road Safety Policy and Road Safety Fund, increasing the number of patrol vehicles and removal of about 300 black-spots; and implementing a Road Accident Database Management System (RADMS). Consequently, the number of fatalities from road accidents per 10,000 registered vehicles reduced from 19 in 2003, to 11 in 2012.

Even so, the road sector in Tamil Nadu is still facing three notable challenges: inadequate and suboptimal investments, insufficient implementation capacity and poor road safety. Over the last decade, the state government made significant progress in addressing these challenges. These challenges, however, remain due to the rapid economic growth of the state and the consequent increase in the number of vehicles and the demand for road transport, as detailed below.

Investments lagging behind demand: During the last decade, while the length of the NH, SH and MDR in Tamil Nadu increased by about 50%, the number of registered vehicles in the state increased by 160%. According to the state's Vision 2023 document, the road sector investment requirements over the next 10 years are estimated at INR 900 billion (USD 15 billion). As against these estimates, the annual capital expenditure (capex) for the entire sector currently stands at INR 24 billion (USD 400 million).

Sub-optimal expenditure patterns: In the recent years, a sizeable portion of the capex is being channeled towards the 'lower-traffic' rungs of the network. Such emphasis on capacity expansion of 'lower' rungs of the network contributed to improved road access but it also resulted in underinvestment in capacity expansion of the 'upper' rungs of the network with high-traffic. Currently, the relatively high-traffic segments of the CRN are being maintained by providing

strengthening coats at 1-3 year intervals (under the head of maintenance) instead of more appropriate practice of undertaking structural interventions and capacity expansion (under the head of capex). Also, most capital expenditures are small-size, traditional item-rate contracts. Using this highly fragmented approach leaves a negligible impact and involves tackling a needy corridor through small stretches over several years.

**Low implementation capacity:** In recent years, the capacity of HD for managing upgradation activity has increased but only up to about 800 km/year whereas to be able to achieve GoTN's Vision 2023 of upgrading about 20,000 km of roads over the next 10 years, HD would need to more than double its implementation capacity.

**Road safety:** Tamil Nadu currently ranks in the top five states in terms of road accidents, fatalities and injuries, accounting for about 13.8% of total accidents and 12% of persons killed in road accidents in India. An analysis of a recent review of the management and capacity of the state government and its various agencies engaged in the road safety agenda has underscored that the core issue underlining road trauma is that state roads have not been designed to accommodate the increasing number of vehicles and traffic flow. The study also concluded that the state's capacity to respond to road safety challenge does require substantial augmentation across and through more coordinated involvement of multiple stakeholder departments such as Transport, Police, Highways, Health and Education not only at the state level but also at lower operational levels such as districts and corridors.

GoTN is conscious that the aforementioned challenges pose significant risk to the achievement of its plans for improving the capacity, quality and safety of the State's CRN, through an ambitious program, entitled "Tamil Nadu State Highway Development Program (TNSDHP)," which aims to strengthen and widen 4,000-5,000 km of high-traffic segments of the CRN during the next 3-4 years. Accordingly, it has developed a multi-pronged strategy with the following key elements; and sought Bank's assistance in implementing the same.

In keeping with the aforementioned plans and preferences of GoTN, the proposed project is focusing mainly on improving (a) capacity and maintenance of priority roads; (b) the institutional capacity through improved policies, operational systems and procedures; and (c) road safety.

## **II. Proposed Development Objectives**

The project development objective is to increase road capacity, enhance quality of maintenance, improve safety and support institutional development of the Tamil Nadu's core road network (CRN) of state highways.

## **III. Project Description**

### **Component Name**

Component C: Road Safety

### **Comments (optional)**

In addition to the provisions for better road safety on project roads, the project will support achievement of improved road safety, at two levels. First, at the state level, GoTN's capacity to achieve better road safety will be enhanced through a combination of strategic and operational interventions. Second, at the field level i.e. in a district and a corridor, the project will support designing and implementation of road safety improvement initiatives, to demonstrate how multiple stakeholder departments could achieve better outcomes through coordinated efforts and investments.

### **Component Name**

Component A: Network Improvement

**Comments (optional)**

- Upgradation and maintenance through EPC contracts (Sub-component A1): construction of civil works for widening and upgrading of approximately 435 km of roads of CRN, to two-lane with paved shoulders standards through EPC contracts, with maintenance for a 5-year period after the construction.
- Upgradation and maintenance through PPP concessions (Sub-component A2): construction of civil works for widening and upgrading of approximately 165 km of roads of CRN, to four-lane standards and maintenance during the concession period, with the option of tolling; and
- Maintenance through Performance-based Maintenance Contracts (Sub-component A3): Maintenance of approximately 600 km of CRN for a 5-year period.

**Component Name**

Component B: Institutional Capacity Enhancement

**Comments (optional)**

This component aims to implement the Institutional Capacity Enhancement Plan (ICEP) developed by the HD and approved by GoTN. The project will support (a) policy level actions and commitments to improve both mobilization and allocation of resources in the road sector and (b) operational level initiatives to enhance enterprise-level efficiency through (i) process improvements; (ii) organizational restructuring; (iii) sustaining investments in IT infrastructure; and (iv) Training & Knowledge Management. This component includes mainstreaming and integrating the key IT-based systems i.e. RMS, PFMS and RADMS.

**IV. Financing (in USD Million)**

Total Project Cost:	778.20	Total Bank Financing:	300.00
Financing Gap:	0.00		
<b>For Loans/Credits/Others</b>			<b>Amount</b>
Borrower			478.20
International Bank for Reconstruction and Development			300.00
Total			778.20

**V. Implementation**

Agency-wise Responsibilities: The HD will be implementing the project through a Project Implementation Unit (PIU). The PIU is headed by a Project Director, staffed with engineers, support personnel of the HD and complimented with staff of the Finance, Revenue and Environment Departments. The HD will be the overall custodian of the project planning, budgeting, and progress of project components. PIU will be directly responsible for all aspects of the network improvement component. The HD and the Transport Department will be responsible for the implementation of the Institutional Capacity Enhancement and Road Safety components, respectively. In implementation of the road safety component, the Transport Department and PIU will coopt other stakeholders departments, i.e. Police, Health and Education Departments and Kanchiparuum District Administration.

Oversight and Coordination Mechanisms: GoTN has established an Empowered Committee to make policy decisions, resolve inter-departmental issues, and guide the HD in implementation of the project. The Empowered Committee, comprises of the Chief Secretary, the Principal Secretaries of the Finance and the Highways & Minor Ports Departments and the Project Director, is headed by

the Honorable Minister of Highways & Minor Ports. The GoTN constituted a Steering Committee to make all procurement decisions, periodically review the implementation of the project, resolve emerging issues, and provide necessary guidance to the PIU. The Steering Committee is headed by the Principal Secretary, Highways and Minor Ports Department and comprises of the Principal Secretary, Finance Department, the Project Director and the Chief Engineer (Construction & Maintenance) of the HD.

Implementation of Safeguards: The management of social and environmental aspects in the project is being guided by the Resettlement Policy Framework (RPF) and Environmental Management Framework (RMF) developed in accordance with in-country legislations and the Bank's safeguards policies. The RPF, for example, covers the principles and objectives of resettlement, process for conducting census survey, socio-economic surveys, and preparation of RAPs, entitlements for different types of impacts, process of land acquisition, valuation of affected assets, consultations and disclosure, institutional arrangements, coordination with civil works, grievance redress mechanism and monitoring and evaluation arrangements. The implementation of the environmental and social safeguards will be carried out with suitable staffing at the PIU and the engagement of expert assistance in the form of Independent Consultants and agencies for implementation and monitoring of Environmental Management Plans and Resettlement Action Plans, and periodic supervision from the Bank's safeguards' specialists.

## VI. Safeguard Policies (including public consultation)

<b>Safeguard Policies Triggered by the Project</b>	<b>Yes</b>	<b>No</b>
Environmental Assessment OP/BP 4.01	x	
Natural Habitats OP/BP 4.04	x	
Forests OP/BP 4.36	x	
Pest Management OP 4.09		x
Physical Cultural Resources OP/BP 4.11	x	
Indigenous Peoples OP/BP 4.10		x
Involuntary Resettlement OP/BP 4.12	x	
Safety of Dams OP/BP 4.37		x
Projects on International Waterways OP/BP 7.50		x
Projects in Disputed Areas OP/BP 7.60		x

**Comments (optional)**

## VII. Contact point

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