

**INTEGRATED SAFEGUARDS DATASHEET
APPRAISAL STAGE**

I. Basic Information

Date prepared/updated: 11/04/2009

Report No.: AC4844

1. Basic Project Data

Original Project ID: P050649	Original Project Name: Tamil Nadu Road Sector Project	
Country: India	Project ID: P118981	
Project Name: Tamil Nadu Road Sector Project		
Task Team Leader: Pratap Tvgssshrkr		
Estimated Appraisal Date: November 6, 2009	Estimated Board Date: March 23, 2010	
Managing Unit: SASDT	Lending Instrument: Specific Investment Loan	
Sector: Roads and highways (90%);Sub-national government administration (10%)		
Theme: Infrastructure services for private sector development (40%);Trade facilitation and market access (40%);Other public sector governance (20%)		
IBRD Amount (US\$m.):	50.70	
IDA Amount (US\$m.):	0.00	
GEF Amount (US\$m.):	0.00	
PCF Amount (US\$m.):	0.00	
Other financing amounts by source:		
Borrower		6.40
		6.40
Environmental Category: A - Full Assessment		
Simplified Processing	Simple <input checked="" type="checkbox"/>	Repeater <input type="checkbox"/>
Is this project processed under OP 8.50 (Emergency Recovery) or OP 8.00 (Rapid Response to Crises and Emergencies)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

2. Project Objectives

The project development objective is to improve the quality and sustainability of the state's core road network. The core road network refers to the state highways and major district roads being managed by the Highways Department (HD) of Tamil Nadu. This objective is to be achieved through production of the following four outputs (i) capacity and quality enhancement of about 750 km of state roads in the core network with proper management of social and environmental impacts; (ii) rehabilitation, major maintenance on about 2,000 km and blackspot improvements at some of the critical locations on the core network; (iii) improvements to the management of the state road network through institutional strengthening and public-private partnerships; and (iv) enhanced funding and improved allocation procedures for the road sector.

The project has experienced significant cost overrun. The proposed Additional Financing would help finance the costs associated with cost overrun, while the Project Development Objective (PDO) would remain unchanged.

3. Project Description

Road Upgradation Component (about 750 km): This component primarily aims to improve the capacity of the state road network through widening and strengthening of about 750 km of existing state highways and 14 bypasses to two-lane roads with or without paved shoulders, depending on traffic and other considerations. The designs have been done by international consultants and works are being supervised by consultants procured through international competition. Environmental and social assessment for these works have been carried out and appropriate mitigation plans have been developed for handling the various kinds of impacts. These are being implemented during the project along with the execution of works. This component also supports the State's initiative for public-private partnerships in road construction and operations. The overall progress of works in five contracts which are under implementation is about 86%. For one contract [i.e construction of Tsunami Bridge], bids have been invited. For the remaining one contract [i.e 4 km-long Kumbakonam Bypass], bids are expected to be invited shortly.

Road Maintenance and Safety Works Component

Under this component the project addresses the periodic maintenance and safety related minor works needed to maintain a smooth, safe and comfortable flow of traffic on the core road network of the state. Maintenance of about 2000 km of state roads is envisaged to be taken up. So far 849 km of roads have been improved through this component. Works on 117 km of roads are in progress. For improvement of about 300 km of roads on performance-based maintenance contracts, bidding documents are being prepared. For another 113 km of roads, which have been studied for development on PPP basis but were found to be unviable for toll-based BOT operations due to low FIRR values, bidding documents are being prepared for maintenance.

Institutional Strengthening and Policy Development Component

This component would help the Government of Tamil Nadu in the implementation of the Institutional Strengthening Action Plan. The component would also strengthen the road maintenance planning and implementation within Highways Department through supporting the development of a maintenance management system for coming up with multi-year rolling Maintenance programs/budgets for the core network of the state. Significant part of this component has been completed and the pending activities will be completed during the period of Additional Financing. As part of this component, the department wide Environmental Management Policy, Manual and Social Management Guidelines will also be prepared based on the review of the applicable policy provisions and experience during the implementation of this project.

4. Project Location and salient physical characteristics relevant to the safeguard analysis

The project is located in the state of Tamil Nadu in the southern part of India. The upgradation project roads are located in two specific geographical areas of the state in the

North (TNRSP-01) and East (TNRSP-02, 03, 04 and 05). All the road corridors traverse through number of human settlements and some cultural, religious and tourist locations. Project roads pass through 11 districts (Vellore, Tiruvannamalai, Villipuram, Cuddalore, Perembur, Thanjavore, Tiruvarur, Nagapattinam, Pudukottai, Ramanathapuram and Tuticorin) which are predominantly rural, except Tiruvannamalai, Tuticorin and Vellore where the urban population is in the range of 30-50 percent.

5. Environmental and Social Safeguards Specialists

Mr I. U. B. Reddy (SASDI)

Mr Sita Ramakrishna Addepalli (SASDI)

6. Safeguard Policies Triggered	Yes	No
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

II. Key Safeguard Policy Issues and Their Management

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts: Environment Assessment (OP 4.01) The road corridors have been selected to cause minimal direct adverse impacts on the people, land, cultural property and the ecologically sensitive areas of the state and no potential large scale or irreversible impacts were identified by the Environmental Assessment (EA) and Social Impact Assessment (SIA) process. Environmental and social safeguard issues have been carefully considered and integrated with the project designs for the upgradation as well as maintenance works.

The upgradation roads are mostly in plain terrain and pass through agricultural lands. About 5,700 roadside trees are cut and in lieu of this, the project has taken up compensatory plantation at a ratio of 1:4. With respect to eco-sensitive areas, two road stretches pass through reserve forests and conversion of 3.2 ha of forest land was unavoidable. This is degraded forest and does not constitute a natural habitat and is not part of notified natural habitat. The project has met regulatory compliance requirements relating to forest diversion. In addition, environmental enhancement measures have been implemented in two reserve forest areas There are road stretches that pass about 1 km away from Udayamarthandapuram Bird sanctuary and through some reserve forests. Measures to mitigate construction stage adverse impacts have been identified and implemented as part of the EMPs. Three contract packages (TNRSP 02, 03 and 04) run

along the eastern coast, where mangroves, aquaculture farms and salt pans are present. However, none of these are close to the roads. Also the construction works in these stretches have been completed with satisfactory implementation of EMP measures.

As with any road project, the usual construction-related impacts were mitigated with effective implementation of EMPs. The balance works to be completed include the operation of quarries, borrow area management, sand mining from river beds, siting and proper maintenance (particularly, in relation to air emissions) of hot mix plants, as well as proper management of construction camps. There are limited number of major and minor bridges to be constructed or refurbished for which, the overall EMP measures prepared for the project are adequate to mitigate construction impacts. This has been confirmed during project implementation. Thus the EMPs are valid for the Additional Financing also. The impacts envisaged on maintenance roads are limited to those during construction. Mitigation measures such as proper siting of hot mix plants and construction camps have been planned and have been effectively followed for first and second year maintenance contracts and are effectively followed for ongoing third and fourth year maintenance contracts. The specific contract-wise Environmental Management Plans (EMPs) implemented and will continue to be implemented during the period of additional financing include: (a) managing construction-related impacts such as identifying suitable locations for siting construction camps and hot mix plants, (b) relocating common cultural properties, and (c) compensating for loss of trees. For the maintenance works, the generic Environment and Resettlement Management Plan (ERMP) includes standard construction-related mitigation and screening guidelines to determine whether there are any major environment and resettlement impacts in specific roads that will require additional measures.

Cultural property (OPN 11.03): There are a number of religious and historic sites in the vicinity of the project roads. Mitigation measures to avoid damage during construction, such as precautions in handling of heavy equipment in proximity to temple sites, reduction of noise and excessive vibrations and prevention of dumping debris in temple tanks etc are provided in the cultural property resources plan, which is part of the EMPs. These plans have been effectively implemented in all the completed road corridors and will be continued to be followed as part of Additional Financing.

Involuntary Resettlement (OP4.12):

The Safeguards documents including the RAP was reviewed and cleared by the Regional Safeguards Office at the time of Appraisal of the original project in 2003 (clearance Memo from the SASES Director, dated January, 07, 2003). This approved RAP has been now substantially implemented (97%). The magnitude of private land acquisition and resettlement impacts in the project is one of the largest for the State Highway projects of this nature (432 hectares, 11,155 land owners and 1085 displaced families). The land acquisition and resettlement impacts in the two upgrading contracts, which are currently in procurement stage, are very limited and award of these contracts is linked to the satisfactory completion of the pre-identified actions in the implementation of RAP. The concurrent monitoring evaluation was carried out the for R&R implementation in the section 1 impacts and the remedial measures identified in the study

were also implemented satisfactorily. However, the subsequent concurrent impact assessment study for the remaining sections was delayed due to rejection of the consultant's report by the Highways Department due to poor quality and missing data. The Highways Department has initiated the process for commissioning another consultant and the study is expected to be completed by middle of December, 2009.

Indigenous Peoples (4.20): The project roads do not pass through any tribal districts. The census survey revealed that only four project affected households belong to tribal families. Impacts to four people do not constitute IPs as defined in the OD 4.20. These four households are spread in different stretches and do not exhibit any of the characteristics described in OD 4.20 in terms of attachment to ancestral territories, self identification or identification by others, language spoken, customary social and political institutions and subsistence oriented production. Therefore, the "OD 4.20 on Indigenous peoples" is not triggered to this project.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

There are no potential indirect and/or long term impacts arising from the identified safeguard policies and project components. All the environmental and social concerns identified are relatively independent and are being mitigated through contract-specific Environmental Management Plans and a Resettlement Action Plan for the upgradation roads, and Environmental & Resettlement Management Plan for the maintenance roads.

The main potential cumulative impacts relate to the combination of safeguard policies (Involuntary Resettlement and Environmental Assessment) being triggered in case of proposed resettlement sites. The plans for resettlement sites also included an EMP with appropriate environment management measures both for siting and development. The EMP measures in this regard have been implemented.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

During the detailed feasibility study, EA and the SIA process, several alignments, structural and geometric design alternatives were considered, including through public consultation, for all the project roads. The minimization of the following factors were considered in the final design: resettlement and rehabilitation, tree cutting, loss of arable land, vehicle operating cost and travel time, and finally conflicts between through traffic and local activity.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The Highways Department (HD) engaged an independent consultant to review, identify gaps and strengthen the EA and RAP wherever appropriate. The safeguard reports comprise (i) a Consolidated EA and RAP for entire project, (ii) contract specific EMPs for each improvement road and, (iii) a generic Environmental and Resettlement Management Plan (ERMP) for maintenance roads. These reports are all consistent with relevant Borrower legislation and policies as well as Bank policies. Implementation of

these plans has confirmed adequacy to address safeguards related issues and will continue to be appropriate for implementation of activities under additional finance.

An Environment and Social Development Cell has been created within the Project Management Unit (PMU) to coordinate the implementation of environment and social aspects of the project. During the implementation, this Cell has effectively coordinated with the HD's field level staff, who has been assigned responsibilities to ensure proper implementation of the plans.

The Social Development Cell includes a Joint Project Director, Deputy Collector (Land Acquisition) and Resettlement Officer at the Head Quarters and revenue and extension officers in all field divisions to coordinate the land acquisition and resettlement implementation. This was supported by 4 NGOs, one each for each of the upgradation packages and concurrent monitoring consultants. These staff are supplemented by Engineers for overseeing the civil works related to R&R.

EMPs for the improvement works and ERMPs for the maintenance works have been integrated in the contract documents. The supervision consultant teams for different contract packages included environmental engineers (contract-level and field-level) who will be responsible for ensuring that contractors undertake the works according to contract requirements. The contractors also have a dedicated environment officer to ensure proper day-to-day implementation. This arrangement will continue as part of Additional Financing. The specific implementation outcomes achieved under the guidance of Environmental Management Cell of the PMU include:

Road side compensatory plantation of about 22,000 saplings in different corridors with a survival rate of about 75%. Further, the total estimated ongoing new plantations are about 26,500 plus 5,000 casualty replacements. This target will be completed during the period of Additional Financing.

Integrating measures to protect cultural properties in the form of Environmental Enhancement measures along the project corridors has paid good results and built community good will. All the contracts except TNRSP # 01 has completed 85 to 95% of the environmental enhancement measures In case of TNRSP-01, implementation of enhancement measures as part of EMP implementation is about 55%. The specific value addition, especially environmental enhancements due to EMP implementation in the project include restoration/protection of 108 road side ponds; enhancement of 155 cultural/ community properties; and improvement of about 70 incidental spaces contributing to road safety, common space for community use, and better landscaping. Specific action plans have been agreed with TNRSP # 01 to complete enhancement measures by end of November, 2009

Effective implementation of EMPs to address construction related impacts.

On the social side, some of the outcomes of the implementation are: (a) successful adoption of fixed Negotiations price with top-up provisions for acquisition of private

elands through negotiations;(b) establishment of about 60 small size resettlement sites for resettlement of displaced families with necessary basic amenities; (c) extending income generation support in the form of land purchase grant, alternative shops or cash assistance for purchase of income generating assets for those losing livelihood; and (d) replacement of large number of affected community assets (about 1600).

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people. Public consultation has been fully incorporated in the project preparation with the objective of (i) identifying specific environmental and social issues, (ii) soliciting comments on project formulation, route selection and design standards and (iii) soliciting proposals for mitigating or offsetting potential environmental and social impacts. Various design decisions, particularly finalization of the alignments, have been taken in consultation with affected communities. The following public consultations occurred during project preparation:

- # A task force comprising specialists from the Project Coordinating Consultant along with the Divisional Engineer (Highways) in each district was constituted to conduct public consultation. Public hearings were conducted for all the 11 districts the upgradation roads pass through.

- # State level with NGO's having state-wide jurisdiction (4),

- # Collectors of districts through which project roads traverse (10),

- # Village level meetings with public / PAPs, (15),

- # NGOs in districts where sensitive ecological areas have been identified (10) and

- # Proposed bypass locations (10).

- # Government agencies that undertake land use planning (especially along the eastern project roads i.e., contract packages - TNRSP 02, 03 and 04). Individual consultations have been held with these land use agencies and a consultative workshop was also held in October 2002. The outcome of these consultations has also been suitably incorporated in project design.

- # The consultations were part throughout the implementation of RAP as NGOs were involved with its implementation. As part of RAP implementation, NGOs were closely associated with affected families through consultations during shifting of families to alternative sites, designing income generation activities, selection of alternative resettlement sites and selection of sites for relocation of affected community assets.

The draft environment and social safeguard documents were disclosed locally in all project district libraries on December 19, 2002. These were also disclosed in the Bank's Infoshop in Washington and the Public Information Centre in Delhi during the last week of December, 2002. The Highways Department also replaced the draft documents with the final versions and disclosed them in the District Libraries on January 04, 2003, of 11 districts where the project is implemented.

The above referred stakeholders, consultation and disclosure process still holds good for the Additional Financing

B. Disclosure Requirements Date

Environmental Assessment/Audit/Management Plan/Other:

Was the document disclosed prior to appraisal?	Yes
Date of receipt by the Bank	06/01/1998
Date of "in-country" disclosure	12/19/2002
Date of submission to InfoShop	12/27/2002
For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors	01/03/2003

Resettlement Action Plan/Framework/Policy Process:

Was the document disclosed prior to appraisal?	Yes
Date of receipt by the Bank	12/20/2002
Date of "in-country" disclosure	12/19/2002
Date of submission to InfoShop	12/27/2002

Indigenous Peoples Plan/Planning Framework:

Was the document disclosed prior to appraisal?	
Date of receipt by the Bank	
Date of "in-country" disclosure	
Date of submission to InfoShop	

Pest Management Plan:

Was the document disclosed prior to appraisal?	
Date of receipt by the Bank	
Date of "in-country" disclosure	
Date of submission to InfoShop	

*** If the project triggers the Pest Management and/or Physical Cultural Resources, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.**

If in-country disclosure of any of the above documents is not expected, please explain why:

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?	Yes
If yes, then did the Regional Environment Unit or Sector Manager (SM) review and approve the EA report?	Yes
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	Yes

OP/BP 4.04 - Natural Habitats

Would the project result in any significant conversion or degradation of critical natural habitats?	No
If the project would result in significant conversion or degradation of other	N/A

(non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?

OP/BP 4.11 - Physical Cultural Resources

Does the EA include adequate measures related to cultural property? Yes

Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property? Yes

OP/BP 4.12 - Involuntary Resettlement

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared? Yes

If yes, then did the Regional unit responsible for safeguards or Sector Manager review the plan? Yes

The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank's Infoshop? Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs? Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies? Yes

Have costs related to safeguard policy measures been included in the project cost? Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies? Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents? Yes

D. Approvals

<i>Signed and submitted by:</i>	<i>Name</i>	<i>Date</i>
Task Team Leader:	Mr Pratap Tygssshrk	10/25/2009
Environmental Specialist:	Mr Sita Ramakrishna Addepalli	10/25/2009
Social Development Specialist	Mr I. U. B. Reddy	10/25/2009
Additional Environmental and/or Social Development Specialist(s):		
<i>Approved by:</i>		
Regional Safeguards Coordinator:	Mr Sanjay Srivastava	10/27/2009
Comments: Srin/Pratap, I have reviewed the ISDS and is cleared for disclosure from our side.		
Regards, Sanjay		

Sanjay Srivastava Regional Safeguards Adviser (Acting)		
Sector Manager:	Mr Michel Audige	10/28/2009
Comments: Pratap,		
Already cleared in the system. I should have told you.		
Kind regards,		
Michel Audige Sector Manager (Transport) South Asia Region The World Bank		