

Project Name	India-Andhra Pradesh State Highway Project (@#)
Region	South Asia
Sector	Transportation
Project ID	INPA9995
Borrower	Government of India
Implementing Agency	Roads & Buildings Department (RBD) Government of Andhra Pradesh Hyderabad - 500 022, India Contact: Principal Secretary Transport, Roads & Buildings Telephone: 91-40-234-591 Fax: 91-40-393-197
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1. Country and Sector Background

1.1 At national and state levels, the transport scene in India is characterized by the growing importance of road transport. The demand for intercity freight transport in India is expected to double every 12 years while the demand for passenger transport is expected to double every 8-9 years. The share of total demand going to roads in India is now about 60 percent of freight and 85 percent of passenger traffic, with the railroads carrying the balance.

1.2 Since 1950, the core system of paved National roads and State roads (State Highways and state Major District Roads) has expanded over seven-fold, from about 19,800 km to about 156,000 km, yet comprised only 2% and 20% respectively of all roads in the 1990 national road inventory. In traffic terms, however, the National network carries about 35 % of all road traffic while the State network carries about 60 %, leaving 5 percent for the rural road network. The rapid expansion of the network, although achieving the political and social objectives of national connectivity and rural access, was only made possible by spreading resources over a great deal of single-lane (3.75 m wide) and intermediate-lane (5.5 m) carriageway roads with thin pavements. India's arterial road system is now highly congested and of poor riding quality, causing high vehicle operating costs and low quality services for users.

1.3 A declining share for road investments in Plan funding allocations is in large part responsible for this situation. However, at least equally serious for road programs are the absorptive capacity and implementation constraints of the sector agencies such the state Public Works Departments (PWDs). Sector reforms are needed to foster introduction of high-quality engineering services and technologically advanced road construction practices capable of delivering cost-

effective, high-quality road infrastructure on schedule, and to foster sound, systematic road network maintenance policies to maximize road asset life. Some of India's states (led by Andhra Pradesh, Haryana and Rajasthan) have now, with national government support, endorsed such reforms in their context for implementation in conjunction with major road upgrading proposals involving the Bank's assistance.

1.4 The State of Andhra Pradesh with a population of approximately 70 million and an area of 275,000 square km is both the fifth most populous and fifth largest State of the Union. The highway network of the State consists of a total of 138,000 km of highways of which 2,950 km are classified as National Highways (NH), 8,750 km as State Highways (SH), and 32,650 as Major District Roads (MDR). Even though the SH/MDR network carries over 60% of the State's traffic, 53% of SH and nearly 90% of MDRs are still single lane. Vehicle registrations have increased by approximately 16% per annum during the last five years and traffic is projected to grow at least at 7-8% per annum for the foreseeable future. This indicates that for many of the road links, congestion is already a serious problem.

2. Project Objectives. The objectives of the project will be to: (a) promote a more rational and efficient approach to road investment planning, management and maintenance at the state level; (b) improve the GOAP's institutional capabilities in the sector; (c) improve longer-term resource mobilization in the sector to ensure financial sustainability of the State's SH/MDR network; (d) upgrade the capabilities of the private engineering and construction industry to meet growing demand for high quality highways, engineering and construction services; and (e) improve the riding quality and capacity of selected congested segments of the SH/MDR network to reduce vehicle operating costs, travel time, accidents and pollution.

3. Project Description. The proposed project would principally consist of: (a) civil works for widening and rehabilitation of about 1100 km of state highways; (b) financing, during the project period, of a declining share of road maintenance needs; (c) technical assistance for updating and expanding a pavement management system for state roads; (d) technical assistance for reforming and institutional strengthening of the State's road transport agencies and sustainable financing of road maintenance; and (e) consulting services for project engineering design, monitoring and coordination of implementation, and for supervision of civil works.

4. Project Cost and Financing. The total project cost including contingencies and taxes is estimated at approximately US\$ 350 million, which will finance the widening, strengthening and/or rehabilitation of up to 1400 km of major roads, necessary consultancy and supervision services, strengthened maintenance of Andhra Pradesh's major road network, and institutional strengthening measures. The actual project amount is subject to further review at appraisal. The World Bank will finance 70% of the estimated final total project cost with a IBRD loan of approximately US\$ 4 million and the Government of Andhra Pradesh will meet the 30% counterpart funding.

5. Project Implementation. The proposed project would be implemented

by the Government of Andhra Pradesh through its Roads and Buildings Department (RBD), with the comprehensive assistance of Project Coordinating Consultants (PCC) funded under the project.

6. Lessons from Previous Operations. The project implementation record of the sector has been mixed, with poor performance most often attributable to: (i) inadequate pre-qualification standards for contractors; (ii) weak project implementation and management capacities for complex civil works contracts; (iii) ineffectuality of contract performance provisions; (iv) shortage of competent mechanized road construction contractors; (v) the Bank's logistical difficulties in supervising multi-state projects; (vi) facilitation delays in land acquisition and clearance of obstructions from project roadways; (vii) poor quality of project surveys and designs; and (viii) limited assimilation by borrowers of agreed Bank procurement rules.

7. Project Sustainability. This will be addressed at two complementary levels. The project works being implemented with the PCC services will entail internationally-proven engineering standards and practices. A progressive skills transfer program for RBD staff is to be provided, and various forms of technical assistance will target the RBD's skills and systems needs to achieve more effective technical and operational management. The quality of the project road works should themselves ensure road performance and durability considerably exceeding current norms. The longer-term sustainability of the project benefits would be ensured through: (i) strengthened processes for improved road maintenance planning and execution; (ii) the re-orientation of the RBD's roads functions increasingly involving private sector project engineering, construction and supervision services; and (iii) associated institution building measures to strengthen the organizational, policy and financial dimensions of road infrastructure management in Andhra Pradesh.

8. Poverty Category. This project is not directly aimed at poverty alleviation, although it will also produce distributed benefits progressively in that context.

9. Environmental and Social Impact. A sector-level Environment Assessment will be completed before Bank appraisal of the project, with provision for more detailed assessment if necessary. Minimum adverse environmental impacts are expected during construction operations and from the road works, as the construction of any new roads is not envisaged. All project works will be limited to the strengthening, widening and/or improvement of road pavements and shoulders within the existing right of way, minimizing the need for land acquisition and the involuntary resettlement and rehabilitation (R&R) of people en route. Where R&R aspects arise, this will be surveyed beforehand and comprehensively addressed in accordance with the relevant Bank guidelines. Some sections of existing roads pass close to sensitive environmental areas. The extent of impacts of road widening are being reviewed by the government in specific sub-studies related to these sections. Beneficial environmental impacts are expected due to the improved engineering of roads leading to decreased traffic congestion, lower noise levels and improved safety.

10. Project Benefits & Project Risks. The main direct benefits expected from this project will be (i) greater efficiency in transport operations on the State's road network; (ii) more effective management and maintenance of the major road network by Andhra Pradesh authorities; (iii) enhanced road planning, financing, investment and implementation capacity in relevant State entities, and (iv) assimilation of modern high-quality road engineering and construction methods and capabilities by the PWD and local industry. The risks to the project relate directly to: (i) the State's ongoing commitment during project preparation and implementation to Bank lending conditions and requirements; (ii) the effectiveness of the state's financial planning to provide for counterpart funding obligations; (iii) the state's actions to implement appropriate long-term funding levels as required for effective road network maintenance and management; and (iv) inaction on the necessary institutional reforms and strengthening measures.

Note: Environmental Data Sheet is available at the Public Information Center upon request.

Contact Point: Chris Hoban, Task Manager
The World Bank
1818 H Street N.W.
Washington D.C. 20433
Telephone No. : 202-473-3783

Note: This is information on an evolving project. Certain components may not necessarily be included in the final project.

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