

Project Name INDIA-Allahabad Bypass Project

Region South Asia Regional Office

Sector Institutional Development; Privatization; Highways

Project ID INPE73776

Borrower(s) GOVERNMENT OF INDIA

Implementing Agency  
 Address NATIONAL HIGHWAYS AUTHORITY OF INDIA  
 Address: National Highways Authority of India,  
 Plot No. G5 & G6, Sector  
 10, Dwarka, New Delhi  
 Contact Person: Subhash Patel,  
 Chief General Manager (World Bank Projects)  
 Tel: 91-11-508-0355, 91-11-508-0988  
 Fax:91-11-508-0360  
 Email: nhai@vconl.com

Environment Category A

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#### 1. Country and Sector Background

Main Sector Issues: (a) Serious road capacity constraint on the core national highway network. The national highway network has a total length of 57,700 km, which accounts for about 1.7 percent of the total road network of 3.3 million km but carries over 40 percent of the road traffic. Over 95 percent of the national highway network are two-lane roads or less, and 25 percent are in poor surface condition. Steady economic growth during the last 10 years has increased traffic on the national highways by 10 percent per annum. As a result, the trunk national highways are increasingly congested. (b) Poor management of road infrastructure services. The level of service is further worsened by the mixed traffic of fast and slow vehicles, mixed use of right-of-ways passing through urban areas, encroachment, and state border checkpoints (for commodity permit inspection and tax collection) that often hold up trucks for many hours. The poor driving condition in mixed traffic is a major contributing factor to road traffic accidents on the two-lane national highways, especially through the densely populated urban areas. The death rate per 10,000 vehicles in India is around 10 times the levels seen in the European Union, and 38 percent of the road accidents in India occur on national highways. (c) Limited private sector participation in road financing. Improving the level of service on the national highway corridors requires both capacity augmentation and traffic efficiency/safety enhancement. The financial requirements for increasing the trunk highway capacity through 4-laning, 6-laning, and expressway construction are expected to be substantial, and it will be difficult for the public sector to meet the requirement. However, private sector participation in road financing is

very limited. Few projects are financially viable for stand-alone BOT (Build, Operate, and Transfer) schemes, and most projects would require Public-Private Partnership (PPP) to become viable. Various modalities of PPP are currently under development in limited cases, and these need to be tested and extended to cover more projects. (d) Weak institutional capacity to address highway project related social and environmental issues. National highway development in India is also heavily constrained by the weak institutional capacity to address project-related environment and social issues. While relevant laws and government procedures are in place, the technical capabilities of road agencies are inadequate. Coordination is weak between the central and state administrative jurisdictions. The mechanism for consultation with project-affected people, stakeholders, and NGOs is developing, but remain inadequate. Government strategy. The Government of India (GOI) recognizes that the poor performance of the national highway system has been a major drag on economic growth and is determined to upgrade the system through its National Highway Development Program (NHDP). Covering a network of 13,000 km, the program includes the 4-laning of a 6,000 km Golden Quadrilateral (linking Delhi, Calcutta, Chennai and Mumbai), the North-South and East-West corridors, and the trunk roads to key ports. It also includes the planning and construction of expressways where feasible. The total cost for the program is estimated to be US\$12 billion over eight years, and funding sources include government grants, fuel levies, tolls, bonds, private investments, and loans from international development banks. A dedicated Central Road Fund, with revenues from a cess (tax) of Rs. 1 per liter on petrol and diesel was established by GOI in 1999, and a substantial portion (about Rs. 2,000 crores or equivalent of US\$416 million a year) of the Fund is earmarked for national highway development, maintenance, and operation. GOI also has amended the National Highway Act and developed policy guidelines to permit private financing of highways under BOT schemes or PPP arrangements. Institutional reform to improve the effectiveness of public road agencies to deliver road infrastructure services is also an integral part of the government strategy. The Ministry of Road Transport & Highways (MORTH) has long been responsible for national highways. In the past, with close oversight, MORTH delegated considerable responsibilities to the national highway branches in the state Public Works Departments. In 1998, GOI entrusted the National Highways Authority of India (NHAI), a new implementing agency established under the NHAI Act, to take charge of the implementation of NHDP, including projects financed by ADB, the Japanese Bank for International Cooperation and the World Bank. The Act requires NHAI to discharge its functions on business principles as far as possible. The agency has maintained a lean organization by outsourcing most of its activities to the private sector. Through the institutional development actions supported under the Bank and ADB projects, NHAI has taken significant steps to develop and strengthen its institutional capacity for the development, maintenance, and operation of the national highway system in response to the needs of road users and other stakeholders. NHAI is also a designated implementing agency for the preparatory work and monitoring the implementation of private investment projects on the national highway network. Recently the agency has taken responsibility for the maintenance and operation of the 6,000 km Golden Quadrilateral, and is exploring suitable maintenance contracts with the private sector, partly through the implementation of the Corridor Management Units under the World Bank financed Third National Highway Project (TNHP) and Grand Trunk Road

Improvement Project (GTRIP).

## 2. Objectives

The Bank adopts a programmatic approach to support GOI's NHDP through a series of loans. The Allahabad Bypass Project (ABP) is the third in the series, following the TNHP and GTRIP, which were approved by the Board in June 2000 and June 2001, respectively. All three projects finance the upgrading of National Highway 2 (NH-2) between Delhi and Calcutta (with the ABP taking up the last remaining section), and support national highway institutional strengthening actions under an institutional development framework agreed with the client. Thus the development objectives of ABP are consistent with those of TNHP and GTRIP: (a) to reduce transport constraints on national economic activity; and (b) to improve institutional capabilities to manage road programs, assets, and services on a more commercial basis.

## 3. Rationale for Bank's Involvement

The most important contribution of the Bank in this sector is the knowledge of effective institutions, policies, financing and implementation mechanisms in other parts of the world, and experience with economic, social, and environmental analyses of projects. This project focuses on the strengths and weaknesses of current practices in the sector in India, and will mobilize technical expertise in examining and testing new approaches. Many of the procedures which have been put in place during the preparation of TNHP and GTRIP are now being adopted by NHAI for all of its project preparation activities, including procurement, engineering, environment, land acquisition, resettlement, construction supervision and dispute resolution practices. The Bank has been supporting NHAI's institutional development, and facilitating the exchange of information between the central government, states and the private sector. Continued involvement of the Bank will facilitate institutional reforms in sound business management, accountability and responsiveness to external stakeholders, improved road asset management and traffic efficiency and safety, and better planning, policy and regulations. The Bank's financial participation is also important to the implementation of NHDP, before a more sustainable financial mechanism is developed for national highway development and maintenance. The project will not only provide needed funding, but also help mobilize private financial sources through support to the PPP.

## 4. Description

1. Allahabad Bypass construction, including supervision, land acquisition and resettlement, and environmental management. The bypass is located at the northern outskirts of Allahabad City and is 82 km long. It is designed as an access controlled, tolled, 4-lane divided carriageway, with 60 to 70 m right-of-way. There is a 1 km bridge over the Ganga (Ganges) River. The entire bypass will be divided into three construction contracts, including the Ganga bridge contract and two road work contracts on both sides of the Ganga River.

2. Public-private partnership in road concession, including technical assistance and NHAI's share of public-private financing of selected national highway project. This component is proposed to be a continuation to the Bank support under GTRIP to NHAI's BOT projects through competitive bidding on the required NHAI share of public-private investment. A

candidate road could be a section along the Tindivanam to Tiruchirapalli stretch (about 200 km) of the NH-45 in Tamil Nadu. 3. Institutional strengthening: The following sub-components are under consideration and will be further developed before Appraisal is completed: (a) expressway route location planning and optimization; (b) national highways master plan; (c) user satisfaction surveys; (d) road construction industry training program; and (e) project preparation and sector studies.

#### 5. Financing

Total	( US\$m)
BORROWER	50
IBRD	150
Total Project Cost	200

#### 6. Implementation

Similar to the arrangement under TNHP and GTRIP, the project is prepared and will be implemented by NHAI with extensive outsourcing to the private sector and close coordination with the relevant states. Within NHAI, implementation of the highway upgrading component is under the direct responsibility of a Chief General Manager, supported by an on-site Project Management Unit (PMU). A high-level State Project Coordinating Committee in Uttar Pradesh has been functional in facilitating land acquisition, resettlement, utility shifting, forestry and other issues which may require coordination between NHAI and the state. Responsibility for land acquisition and resettlement and financing of all project-related costs will remain with NHAI. Accounting and internal control arrangements: NHAI has decentralized accounting arrangements. Its on site project management teams prepare monthly trial balances which are sent to the headquarters. All projects are supervised by independent professional construction supervision consultants. The contractor's bills are checked by the consultants in addition to ensuring quality control. Bills are also checked by NHAI technical and accounts staff before making payments to contractors. NHAI has a team of finance professionals who will coordinate the consolidation and submission of reimbursement claims for the project. Recently, NHAI has been implementing a Financial Management System (FMS) action plan under TNHP. A computerized integrated financial management system has been developed and is rolling out to cover all NHAI activities. The internal audit function is being re-established and will assist management in strengthening internal control function. The internal auditors will also assist NHAI to update the manual on operational accounting policies and procedures. It is expected that NHAI will fully develop its FMS capacity by the time this project commences implementation.

#### 7. Sustainability

Benefits of the project are likely to be sustained over time as the traffic volumes increase. Nevertheless, a key factor will be NHAI's capacity to maintain and efficiently operate the newly created road assets. The project will enhance this capacity through institutional strengthening, promotion of private sector involvement, and assured funding mechanisms. Key issues are (a) clarifying the roles of NHAI, MORTH and the states; (b) establishing an overall strategy for national highway spending; and (c) ensuring adequate funding for maintenance. The implementation under TNHP and GTRIP of the recommendations of the Institutional Strengthening study and Corridor Management study will be critical for project benefits to sustain over a period of time. Recent

increases in NHAI revenues from levies on petrol and diesel fuel are also an important step.

#### 8. Lessons learned from past operations in the country/sector

ABP is the third Bank project in recent years to support NHDP and its implementing agency, NHAI. The TNHP is in its second year of implementation, and GTRIP just gets started. Some initial lessons are learned and reflected in the design of ABP. Despite good progress in the civil works components of TNHP and GTRIP, the institutional strengthening components are advancing slowly. Thus the appraisal timetable for ABP will be closely linked to the implementation progress of TNHP and GTRIP. Weaknesses have been identified in the areas of financial management and environmental and social safeguard capacity during the preparation and implementation of the first two projects, and these are being addressed through on-going actions under TNHP and GTRIP. The land acquisition and the implementation of environmental management plan and resettlement action plan of TNHP and GTRIP are being closely monitored, and much stronger processes for environmental assessment, stakeholder consultation, land acquisition and resettlement, and government clearances are adopted for ABP.

#### 9. Program of Targeted Intervention (PTI)        N

#### 10. Environment Aspects (including any public consultation)

Issues : The bypass will pass through mostly rural and some semi-urban areas. The terrain across the entire bypass project area is quite homogenous, undulating, fertile alluvial irrigated agricultural land. Preliminary topographic and environment surveys indicate that the alignment will traverse about 104 villages, one major (Ganga) and two minor river crossings, about 30 stream and 30 canal crossings. By freeing large volumes of motor vehicle traffic from the build-up area of Allahabad City, the bypass will substantially contribute to the reduction of motor vehicle pollution that would otherwise affect the city's high density population. But the bypass will also involve significant environmental issues mainly along the alignment, including alternation of land use, tree loss, induced ribbon development, motor vehicle emissions and noise, traffic accident risks, alternation of natural drainage pattern, handling of earthwork, use of material from quarries and borrow areas, and construction related impacts (such as large volumes of material excavation, use of potable water, setting up of stone crushers, hot-mix plants and concrete batch plants, round-the-clock laying of concrete, and spills of oil, fuel, lubricants and bitumen). The environmental issues will be assessed in detail and avoidance/mitigation measures be developed through the Environmental Assessment (EA) process which is on-going. Identification of all stakeholders will be carried out, covering urban (Allahabad), semi-urban and rural people (some of whom may lose land or properties); communities which may be impacted by increased traffic and safety concerns; hospitals, schools, libraries, and businesses which may be impacted; road users including road user associations; government officials from the line departments; local government agencies including village level 'panchayats'; NGOs and community based organizations working in the region; and experts including forestry, wildlife and environmental professionals. The project is being developed through a participatory process. Stakeholder consultations were carried out as part of the EA and Social Assessment screening process and will continue through the rest of

the project cycle. The consultations will be conducted through various means, including door-to-door personal interviews, village meetings, focus group discussions, and consultations with experts and NGOs working in the area. Public consultations have been held on the scope, methodology and expected outputs of the EA and the Environmental Management Plans (EMPs). An analysis of potential impacts and avoidance/mitigation alternatives will be carried out, and the adequate mitigation measures will be developed for the EMPs. Further public consultations on the draft EMPs will be carried out to develop enhancement plans and refine mitigation measures and the findings of the consultations will be incorporated to the extent possible in the bypass designs.

11. Contact Point:

Task Manager  
Zhi Liu  
The World Bank  
1818 H Street, NW  
Washington D.C. 20433  
Telephone: 202-458-2811  
Fax: 202-522-2418

12. For information on other project related documents contact:

The InfoShop  
The World Bank  
1818 H Street, NW  
Washington, D.C. 20433  
Telephone: (202) 458-5454  
Fax: (202) 522-1500  
Web: [http:// www.worldbank.org/infoshop](http://www.worldbank.org/infoshop)

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

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