

Ex-ante Evaluation

1. Name of the Project

Country: India

Project: Hyderabad Outer Ring Road Project Phase 1

(Loan Agreement: March 10, 2008; Loan Amount: 41,853 million yen; Borrower: The President of India)

2. Necessity and Relevance of JBIC's Assistance

In Delhi, Hyderabad and other large cities in India, traffic congestion caused by rapid increase in road traffic demand has become a serious problem. Since this causes economic loss as well as atmospheric contamination, noise and other forms of vehicle-related pollution, there is an urgent need to establish an integrated road network for regional economic development and improvement of urban environment through traffic congestion alleviation.

In the 10th Five-Year Plan, and continuing in the 11th Five-Year Plan (April 2002–March 2007), the Government of India proposes the development of balanced nationwide road network. In addition, citing construction of new roads, widening and strengthening of existing roads, replacement of damaged bridges, strengthening of operation and maintenance of roads, promotion of public-private partnerships, necessity of safety and environmental measures, the Government of India proposes realization of a seamless transportation system by improving access to airports, ports and harbors. In particular, the government is positively committed to the development of main national roads based on the National Highway Development Plan.

In JBIC's Medium-Term Strategy for Overseas Economic Cooperation Operations, priority areas for assistance to India are "Economic Infrastructure Development" and "Response to Environmental Improvement". The assistance provided by this project is consistent with this strategy.

The population of the Hyderabad metropolitan area increased between 1991 and 2001, from 4.67 million to 6.38 million (representing an annual growth rate of 3.2%), while the number of vehicles leaped up from 0.59 million to 1.45 million, causing serious traffic congestion. The population is furthermore predicted to reach 9.05 million in 2011, and 13.64 million in 2021, while the annual growth rate of vehicles is expected to exceed 7%. In addition to private vehicles and buses for transportation within the city itself, a large number of vehicles enter the city only to pass through using radial roads, causing serious traffic congestion. Therefore, construction of an outer ring road will promote regional development in the area surrounding the city, ease congestion by reducing the number of vehicles passing through the city, thereby contributing to regional economic development of the Hyderabad metropolitan area and improvement of the urban environment. Thus JBIC's support for this project is highly necessary and relevant. Additionally, in order not only to improve the project effects of the outer ring road, but also to advance effective urban transport infrastructure development, this project will also involve the development of radial roads in accordance with the urban road development master plans of the state.

3. Project Objectives

This project aims to respond to increasing road traffic demands through the construction of the northern section of the outer ring road and radial roads in the Hyderabad metropolitan area in India's southern state of Andhra Pradesh, thereby easing traffic congestion in the city center and promoting regional economic development.

4. Project Description

(1) Target Area

Hyderabad metropolitan area, State of Andhra Pradesh

(2) Project Outline

The project will construct an expressway approximately 38 km in length (total length of outer ring road is 158 km) in the section connecting National Highway No.7 and No.9 which are major radial roads, and radial roads in the Hyderabad metropolitan area.

(a) Road construction: Civil works and electric works involving highway, service roads, junctions, toll booths, radial roads, etc.

(b) Social development: HIV prevention activities, etc.

(c) Consulting services: Construction supervision, strengthening of operation and maintenance system, etc.

(3) Total Project Cost/Loan Amount

54,165 million yen (Yen Loan Amount: 41,853 million yen)

(4) Schedule

December 2007–February 2013 (63 months). Project completion is defined as completion of construction work and consulting services.

(5) Implementation Structure

(a) Borrower: The President of India

(b) Executing Agency: Hyderabad Growth Corridor Limited (HGCL)

(c) Operation and Maintenance System: Same as (b)

(6) Environmental and Social Consideration

(a) Environmental Effects/Land Acquisition and Resident Relocation

(i) Category: A

(ii) Reason for Categorization

This project is categorized as a road sector project under the "Japan Bank for International Cooperation Guidelines for Confirmation of Environmental and Social Considerations" (established in April 2002). Thus this project is classified as Category A.

(iii) Environmental Permit

The Environment Impact Assessment (EIA) report has been prepared in May 2006 and approved by Andhra Pradesh Pollution Control Board in October 2006.

(iv) Anti-Pollution Measures

The quality of water discharged from the construction site to rivers will comply with the domestic effluent standards by setting up effluent treatment facilities during the execution of the project. The impacts on the project on noise will be mitigated by installing soundproof walls to reduce the noise level.

(v) Natural Environment

Although most of the project area targeted is vacant land, approximately 68 ha of it is in national forests area. Consequently, the Forest Department of the State of Andhra Pradesh will implement the afforestation work in place of HGCL.

(vi) Social Environment

The project requires land acquisition of about 579 ha and involuntary resettlement of 20 households which will be implemented in accordance with the Land Acquisition Act of the Government of India, the resettlement policy of the State of Andhra Pradesh, and the resettlement action plan prepared by HGCL.

(vii) Other/ Monitoring

Environmental impacts regarding such items as air quality, water quality, noise and vibration, resettlement, etc. will be monitored by HGCL.

(b) Promotion of Poverty Reduction

None

(c) Promotion of Social Development (e.g. Gender Perspective, Measures to Prevent Infectious Diseases Including AIDS, Participatory Development, Consideration for the Handicapped, etc.)

The project, which will be implemented in a country where there are serious concerns of AIDS infection, involves large-scale construction work in which most of the labors are single itinerant workers. For this reason, the consultant will hire local NGOs and, in cooperation with local health authorities, will conduct labor hygiene and safety activities including HIV prevention activities.

(7) Other Important Issues

None

5. Outcome Targets

(1) Evaluation Indicators (Operation and Effect Indicator)

Indicator	Baseline (2007)	Target (2015, 2 years after completion)
Annual average daily traffic (PCU/day)		
Section 4 (Pathancheru–Narsapur)	-	76,241
Section 5 (Narsapur–Medchal)	-	84,287
Section 6 (Medchal–Shamirpet)	-	84,007
Time saving (min./vehicle) (National Highway No.9 Jct. - National Road No.7 Jct.)	-	60

(2) Number of beneficiaries

Approximately 9.05 million

(3) Internal Rate of Return (Financial and Economic Internal Rate of Return)

Based on the conditions indicated below, the Economic Internal Rate of Return (EIRR) of this project is 20.2%, the Financial Internal Rate of Return (FIRR) is 0.8%.

[EIRR]

(a) Cost: Project cost (excluding tax), operation and maintenance expenses

(b) Benefit: Saving for vehicle operating cost, saving for travel time cost

(c) Project Life: 30 years

[FIRR]

(a) Cost: Project cost, operation and maintenance expenses

(b) Benefit: Toll revenue

(c) Project Life: 30 years

6. External Risk Factors

None

7. Lessons Learned from Findings of Similar Projects Undertaken in the Past

From past experience with similar projects, the lesson learned is that appropriate procedure for land acquisition is indispensable for smooth execution of urban transportation projects, and adequate follow up in land acquisition and resettlement process is essential. In light of this lesson, under this project, which involves vast amounts of land acquisition, JBIC plans to request the executing agency to report periodically on the progress of the resettlement action plan.

8. Plans for Future Evaluation

(1) Indicators for Future Evaluation

(a) Annual average daily traffic (PCU/day)

(b) Time saving (National Highway No.9 Jct. - National Highway No.7 Jct.) (min./vehicle)

(c) Internal Rate of Return: EIRR (%), FIRR (%)

(2) Timing of Next Evaluation

2 years after project completion