

## 30 India Construction of a Bridge over River Yamuna at Allahabad/Naini

Contributing to alleviation of chronic traffic congestion by constructing a large-scale cable-stayed bridge

**Loan Amount / Disbursed Amount** 10.037 billion yen / 7.514 billion yen  
**Loan Agreement** January 1994  
**Terms & Conditions** 2.6% interest rate, 30 year repayment period (10 year grace period), General untied  
**Final Disbursement Date** March 2005  
**Executing Agency** National Highways Authority of India (NHAI) (<http://www.nhai.org/>)



### Project Objectives

The objectives of the project were to alleviate chronic congestion and promote the smooth traffic flow in Allahabad in the state of Uttar Pradesh by replacing a two-lane existing superannuated bridge (Yamuna Bridge) across the Yamuna River connecting the districts of Allahabad and Naini, with a four-lane bridge (Naini Bridge), as well as to strengthen the national highway network by connecting the main arterial roads, National Highways 2 and 27 and thereby contribute to economic revitalization of the project area.

### Effectiveness and Impact

Rating **a**

This project which consisted of construction of the first large-scale cable-stayed bridge in India, was completed as planned. However, the annual number of passenger vehicles, buses, and trucks on the Naini Bridge in 2006 was 20,765 vehicles/day; 57% of the target. The main reasons for the low achievement were a prolonged slump in industrial activity in the Naini area since 1990 as well as the restriction on daytime traffic for large trucks in Allahabad. It is also indicated that the forecasts at the time of the initial plan were inflated. Nevertheless, motorbike traffic volume in 2006 was more than double of that in 1990, at 15,700 vehicles/day. Furthermore, travel time from Allahabad to Naini was shortened to less than one sixth of the former bridge time. The former bridge also had restrictions on trucks' weight and height so that heavy-loaded trucks had to take a detour road some tens of kilometers away from the Yamuna Bridge. These trucks are now able to travel via the Naini Bridge, which means even greater time savings for them. Therefore, this project has largely achieved its objectives and effectiveness is highly satisfactory.

### Relevance

Rating **a**

This project has been highly relevant with the national policies both at the time of appraisal and at the time of ex-post evaluation. The location of the new bridge is a part of the National Highway 2, which forms the Golden Quadrilateral, the backbone of India's domestic traffic. Therefore, the project continues to have high priority.

### Efficiency

Rating **b**

Although the project costs were lower than planned (74% of planned), the project period was much longer than planned (169% of planned period), therefore, the evaluation for efficiency is moderate. The main reason for cost saving was the fluctuation in exchange rates. The delay in the project was mainly due to the change of the executing agency from Ministry of Road Transport Highways to NHAI, and a delay in tendering procedures.

### Sustainability

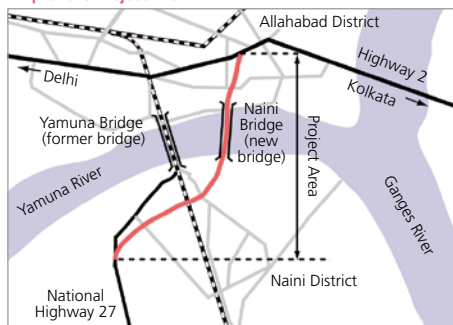
Rating **a**

No major problem has been observed for capacity, nor the operation and maintenance (O&M) system, nor budget allocation for the executing agency. Therefore, sustainability of the project is high.

### Conclusion, Lessons Learned, Recommendation

In light of the above, this project is evaluated to be highly satisfactory. However, as it has been indicated that the initial target of future traffic volume for this project was overestimated, more accurate research is required for future traffic volume forecasting.

Map of the Project Area



### Third-Party Opinion

The Yamuna Bridge is located at the intersection of the two arterial roads, Highway 2 and Highway 27. Therefore, the relevance of this project is high. Thanks to the project, traffic congestion has been alleviated, travel time has been shortened, and therefore has contributed to development of the city.

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