

1. Project Data:		Date Posted : 09/22/2010	
PROJ ID : P073776		Appraisal	Actual
Project Name : Allahabad Bypass Project	Project Costs (US\$M):	320.20	340.55
Country: India	Loan/Credit (US\$M):	240.00	229.93
Sector Board : TR	Cofinancing (US\$M):		
Sector(s): Roads and highways (93%) Other social services (7%)			
Theme(s): Infrastructure services for private sector development (40% - P) Other financial and private sector development (20% - S) Other social development (20% - S) Injuries and non-communicable diseases (20% - S)			
L/C Number: L4719			
	Board Approval Date :		10/14/2003
Partners involved :	Closing Date :	06/30/2009	06/30/2009
Evaluator :	Panel Reviewer :	Group Manager :	Group:
Peter Nigel Freeman	Robert Mark Lacey	IEGSE ICR Reviews	IEGSE

2. Project Objectives and Components:

a. Objectives:

The project development objectives in the PAD are :

- to reduce transport constraints on national economic activity; and
- to improve institutional capabilities to manage road programs, assets, and services on a more commercial basis .

The PDOs in the loan agreement were very similar with only minor wording differences .

b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Components (or Key Conditions in the case of DPLs, as appropriate):

There were three original components :

A. Bypass Construction (Appraisal estimate US\$296.30 million; actual cost US\$337.85 million)

- Civil works for the construction of an 84 km. four-lane divided carriageway bypassing the city of Allahabad (part of National Highway 2 from Kolkata to New Delhi), including service roads, and a bridge across the Ganga River .
- Technical advisory services for the supervision of the works .
- Implementation of a program of resettlement and rehabilitation (R&R) and environmental management activities

as set forth in the Resettlement Action Plan and Environmental Management Plans, including support for the implementation of R&R, training and monitoring activities; procurement of related goods; and implementation of R&R works, environmental and mitigation ancillary works .

B. Corridor Management (Appraisal estimate US\$21.20; actual cost zero)

- Recruitment of a corridor management operator under a performance based contract .
- Procurement and installation of toll collection and automatic traffic management systems .

C. Institutional Strengthening (Appraisal estimate US\$0.30 million; actual cost US\$0.30 million)

- To undertake independent and periodic surveys of road users and road sector stakeholders during the project period, to determine the level of their awareness, involvement and satisfaction with the delivery, management and operation of national highways by the National Highways Authority of India (NHAI).

In addition IBRD charged a front-end fee of US\$2.40 million.

There was ongoing uncertainty about the future management arrangements for the NH 2, but eventually in mid 2006 the Government of India (GOI) decided that its revised national highway policy in the Golden Quadrilateral * would be to upgrade such highways to six-lane status and offer the upgraded highways and subsequent operations to public private partnerships. This meant that Component B in effect became redundant and the amount concerned was reallocated for the construction of the Bypass with the agreement of the Bank Regional Vice -President.

* The Golden Quadrilateral is a highway network connecting New Delhi, Mumbai, Kolkata, and Chennai . It account's for 40 percent of India's highway traffic .

d. Comments on Project Cost, Financing, Borrower Contribution, and Dates:

This was the third Bank loan to support the GOI National Highway Development Program . Component B was dropped as described above. The Borrower had contributed US\$ 100.55 million by closing, which was about 25 percent more than anticipated at appraisal, due to higher than anticipated construction and resettlement costs . The project closed on time in June 2009, although some outstanding uncompleted activities continued for several further months financed by the borrower .

3. Relevance of Objectives & Design:

The GOI recognized that infrastructure bottlenecks constituted one of the major constraints to poverty reduction and private sector-led growth. Traffic on the main highways had been consistently growing at a rate approaching 7.5 percent per annum for a decade prior to appraisal . Consequently GOI endorsed a National Highway Development Program to upgrade 13,000 km. of core national highways. While this national network represents less than 2 percent of the total road network of India it carries more than 40 percent of the traffic. The need for highway improvements was thus high and the Bank had already given strong support for this concept through finance for earlier projects including other sections of NH2. The proposed Allahabad Bypass passed through three states that were among the least developed in India. The project was in line with the country assistance strategy to remove highway infrastructure bottlenecks that constrained poverty reduction and private -sector led growth. The first objective was vague and somewhat ambitious as articulated, since it would not be possible to isolate the specific contribution to improving economic activity attributable to this project . And, of course, the Bank would likely not have put forward the second objective in its present form had it known that GOI would change the national road specifications and the ownership model. But at the time of preparation the selected model was just one of a set of options under consideration. Taking all these factors into account the relevance of the objectives was substantial .

Lessons for project design had been learnt from previous NH 2 projects, particularly the need for stronger financial, environmental and social safeguards procedures . A manager responsible for safeguards issues was specifically appointed. The project also benefited from design improvements such as rigid pavements, limited access, combining cross drainage with pedestrian crossings, the use of fly ash in embankment construction, and the carrying out of alternative design analyses for both the bridge and the highway . However, the risk assessment was inadequate . While it recognized that a key factor would be the NHAI's capacity to maintain and efficiently operate the newly created road assets, no specific measure to mitigate the risk was offered . Similarly the financial sustainability was not adequately assessed. QAG rated the quality at entry as moderately satisfactory mainly due to the disconnect between the ambitious institutional objectives and the limited scope of activities to support them, the difficulty in mitigating risks of policy reversals on the issues faced by the sector, and the inadequate analysis of the financial risks associated with the proposed tolling arrangement . There should have been better planning in terms of staged construction. While the main highway sections were designed to accommodate additional lanes, many of the structures including the Ganga Bridge were not designed for six lanes . In short, design relevance was modest .

4. Achievement of Objectives (Efficacy):

To reduce transport constraints on national economic activity . (Substantially achieved) .

The project was one of several in the NH2 highway corridor from Kolkata to Delhi, all with the aim of substantially upgrading the infrastructure and thereby reducing transport constraints on economic activity . The construction of the Allahabad Bypass has reduced journey times in the project corridor from two and a half hours through the city to just over an hour using the Bypass . For the NH2 corridor as a whole, journey times have been reduced by about two days due to various improvements over the entire route . The Bypass has also relieved urban traffic congestion in the city of Allahabad because of traffic diverted to the Bypass, but the impact of this has not been measured . Truck variable operating costs have been reduced by about 30 percent according to calculations using computer models, although fixed costs have increased due to higher prices for new trucks . The project-induced decrease in variable costs would certainly impact positively on economic activity, but the extent of this contribution is not measurable .

Improve institutional capabilities to manage road programs, assets . and services on a more commercial basis . (Negligible)

When the project was conceived, the plan was to make the Bypass a toll facility which was in line with the concept of tolling the sections of the national highway network that had been upgraded . At appraisal, the decision on when to adopt and implement a toll system was still open, pending the tolling strategy to be finalized by NHAI . However, the change in direction by the GOI determined that the highway should be further upgraded in the future to the level of service provided by a six lane facility and after that it would be offered as an opportunity for a public private partnership. This effectively made part of the second objective for the Allahabad Bypass redundant since the recruitment of a corridor management operator would be unnecessary and the purchase of toll collection systems would be premature. This component was therefore dropped in June 2009 and the funds reallocated for Bypass construction.

The remainder of the institutional strengthening activities consisted of funding two surveys, one for road users and one for stakeholders, to determine their level of awareness, involvement and satisfaction with the delivery, management and operation of the national highways by the NHAI (not specific to the Allahabad Bypass). The findings from the surveys yielded information on the public's need for more bridges and crossings to improve connectivity, fencing to prevent people from crossing the highways indiscriminately, and need for provision of emergency contact telephone numbers to name but a few . However, it is not clear how NHAI intend to use these results and no follow up plan is recorded .

5. Efficiency (not applicable to DPLs):

The ERR of 15.7 percent, while above the threshold for acceptability, is considerably lower than the rate of 31.8 percent predicted at appraisal . This is partly due to higher construction cost, but the main factor is that at the time the ICR was prepared the road had literally just opened and traffic had yet to build up to a normal pattern for Indian highways of this type. IEG believes the rate would probably be in excess of 20 percent.

There was, moreover, a missed opportunity to make a financial evaluation of the Bypass to demonstrate the commercial viability of the road to the private sector . NHAI has yet to make a decision on toll charges and when tolling will start. To justify upgrade to a six lane (in accordance with the new GOI policy) as opposed to a four lane facility (supported by the Bank) will certainly need a greater traffic volume than is being experienced at present . NHAI is conducting a feasibility study to look at the viability, but if viability is not proven it will be difficult to find a private sector partner unless the government subsidizes the facility . Clearly, any tolls that are imposed will divert a percentage of the traffic onto the old through city route . Efficiency is considered substantial for the four lane project as approved, but should the GOI go ahead with a further widening at this time it is questionable as to whether it will be justified by the traffic volumes . Efficiency was substantial.

a. If available, enter the Economic Rate of Return (ERR)/Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation :

	Rate Available?	Point Value	Coverage/Scope*
Appraisal	Yes	31.8%	93%
ICR estimate	Yes	15.7%	99%

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome:

Relevance of the objectives and efficiency were on balance substantial . One objective was substantially achieved, while the other was only negligibly achieved (largely due to a change in government policy) . Taking these factors into account the outcome is moderately satisfactory .

a. Outcome Rating : Moderately Satisfactory

7. Rationale for Risk to Development Outcome Rating:

The Bypass is a section of the NH2 route which is being upgraded in its entirety . Over the years the NHAI has developed a capability to manage and maintain the national highways . It has a computerized financial management system and has strengthened institutional performance through project experience with other Bank -funded sections of the NH2.

This said, given the present uncertainty regarding the tolling issue, the extent of diverted traffic after imposing tolls, and the lack as yet of a credible corridor management arrangement (upgrading to six lanes may not be financially or economically viable in the short term, for example), the risk to development outcome is moderate .

a. Risk to Development Outcome Rating : Moderate

8. Assessment of Bank Performance:

While the project design benefitted from experience from earlier projects, there were a number of aspects that were inadequately addressed .The component on corridor management, for example, could have been more robustly designed with a focus on performance based contracts for operations and maintenance, M&E was inadequate and the chosen indicators reflecting performance on the entire NH 2 corridor were inappropriate for the Allahabad Bypass, where locally applicable indicators should have been devised . Arrangements for post completion operation and maintenance of the Bypass also did not receive sufficient attention, probably because it was assumed that a successful commercial operator would take care of this . QAG rated quality at entry as moderately satisfactory and IEG concurs with this assessment .

Field supervision missions were regular and the experienced project team focused on the timely completion of the work. The borrower's ICR commented that in supervision the Bank's contribution was huge, especially in the identification of potential problems and constructive advice on their resolution . The Bank team made repeated requests to the NHAI, however, to respond in a timely way to the corridor management component, but failed to make headway during the life of the project .

a. Ensuring Quality -at-Entry:Moderately Satisfactory

b. Quality of Supervision :Satisfactory

c. Overall Bank Performance :Moderately Satisfactory

9. Assessment of Borrower Performance:

At sector level the GOI took several measures to move towards managing road programs, assets and services on a more commercial basis . For instance, it set up an Inter Ministerial Committee for restructuring the NHAI and supported the business model of outsourcing to the private sector . However, in respect of this specific Bypass project it appeared not to exercise sufficient oversight of the implementing agency . It could have also done more to ensure an organized hand-over of the project at the outset of the operational phase including the confirmation of the tolling arrangements . Performance was moderately satisfactory .

The implementing agency was primarily concerned with the implementation of the civil works which were executed successfully and the closing date was not extended . Some innovative ideas developed in earlier Bank-funded NH2 projects, like the use of fly ash in embankment construction, were successfully utilized . Implementation of the resettlement of affected people was complex, and there were initial delays because land acquisition had not commenced early enough . Shortcomings in the detailed project report led to revisions in the resettlement and rehabilitation plan . The NGOs were also closed out prematurely . In the end, though, the RAP was carried out successfully .

However, the dropping of the corridor management component substantially diminished the institutional impact of the project and the NHAI did not respond decisively to repeated requests by the Bank to take early action on this matter, although it is understandable why they preferred to wait for a signal from central government . The lack of a planned transition from the implementation to the operations phase also had a detrimental affect on the utility of the highway . Performance was moderately satisfactory .

a. Government Performance :Moderately Satisfactory

b. Implementing Agency Performance :Moderately Satisfactory

c. Overall Borrower Performance :Moderately Satisfactory

10. M&E Design, Implementation, & Utilization:

Indicators designed to monitor and evaluate the outcome /impact of the project applied to the whole of the NH 2 rather than to the Allahabad Bypass as such, doubtless because two other Bank supported projects were already ongoing elsewhere in the corridor . Although it is understandable why NHA I wanted to have indicators for the entire route, the local conditions in Allahabad could have been very different . It would have been sensible to have introduced indicators to assess reductions in travel times as a result of through traffic vehicles using the newly constructed Bypass . M&E of design was therefore negligible as it was not project specific . There was also no attempt to assess the relief of traffic congestion in the city or the impact of the project on the economy .

Implementation was monitored through quarterly progress reports and Bank review missions, but output indicators were mainly related to project performance rather than possible changes in outcomes . M&E during implementation was modest.

No specific arrangement for monitoring was outlined following project closure . Utilization of M&E was thus negligible.

a. M&E Quality Rating : Negligible

11. Other Issues (Safeguards, Fiduciary, Unintended Positive and Negative Impacts):

The Allahabad Bypass was identified as a category A safeguard project . It affected 14,062 families and acquisition of 974 hectares of land . Despite initial delays in land acquisition and the payment of compensation, the ICR reports that the Resettlement Action Plan was implemented satisfactorily . The ICR further reports that extra efforts were given to ensure the fullest participation of project affected persons (PAPs). Special emphasis was given to women's participation expedited by help from local NGOs and health workers . The Environment and Social Unit at the NHA I Head Office successfully coordinated the resettlement activities . NGOs played a critical role in the success of the resettlement effort . Because very few of the displaced people had any form of ownership identification, the NGOs used "Family Tree Analysis" to help legalize ownership and minimize disputes among family members . A unique strategy evolved by the project was also a doorstep disbursement campaign, recognizing the difficulties many PAPs had in being able to travel to banks to receive payment . This was highly appreciated by the communities and could be replicated in other remote rural communities .

Special arrangements were made in respect of the potential for erosion of landholdings on the banks of the Ganga River since the expected increase in flow velocity due to the bridge construction might result in land loss to some small farmers whose livelihood depended on the land . It was agreed that possible effects would be monitored over a five year period and any losses reported would be properly compensated . The ICR is silent on whether there were additional environmental issues, but it mentions on p 9 that the environmental monitoring was adequate .

While NHA I's financial management systems met the Bank's requirements, the timeliness of audit reports was unsatisfactory and steps had to be taken to remedy this situation . The ICR reports that issues raised in the audits were satisfactorily addressed . Compliance with covenants was satisfactory with the exception of the covenant for an annual condition assessment of the NHA I road network which was not met .

12. Ratings :	ICR	IEG Review	Reason for Disagreement / Comments
Outcome:	Moderately Satisfactory	Moderately Satisfactory	
Risk to Development Outcome:	Moderate	Moderate	
Bank Performance :	Moderately Satisfactory	Moderately Satisfactory	
Borrower Performance :	Moderately Satisfactory	Moderately Satisfactory	
Quality of ICR :		Satisfactory	

NOTES:

- When insufficient information is provided by the Bank for IEG to arrive at a clear rating, IEG will downgrade the relevant ratings as warranted beginning July 1, 2006.
- The "Reason for Disagreement/Comments" column could cross-reference other sections of the ICR Review, as appropriate .

13. Lessons:

- Major measures to be implemented (such as the corridor management component) should be clearly defined and ready for execution before the launching of the project .
- Innovative approaches to resettlement may be worthy of replication in other projects . These include using "Family Tree Analysis" to help legalize ownership and minimize disputes among family members . A unique strategy evolved by the project was also a doorstep disbursement campaign, recognizing the difficulties many PAPs may have in being able to travel to Banks to receive payment . It was also found that informal community discussions were often more effective in resolving grievances than formal meetings .
- Indicators designed to monitor the outcome of a project should reflect the performance of the specific investment rather the outcome of a larger program to which the project contributes only a part .
- Post completion arrangements are vital for the management and operation of an asset once the construction phase is finished . A clear plan should be in place for the hand-over of newly developed assets .
- The use of fly ash in embankment construction has been confirmed to be technically viable and cost effective .

14. Assessment Recommended? Yes No

15. Comments on Quality of ICR:

The timing of the ICR mission in September 2009 was premature since two lanes of the Bypass were still closed to traffic due to ongoing finishing works, and traffic was less than its target volume . A later mission could have reported more accurately on efficiency dimensions . While the ICR is appropriately concise, the discussion of the failure of the corridor management objective was difficult to follow . Several acronyms were not spelt out, and there was a discrepancy on truck operating costs (page 12 of the ICR states that they fell by 30 percent, while page (iii) of the Data Sheet states that they have risen). On the other hand, the discussion of safeguard and fiduciary compliance was quite detailed.

a. Quality of ICR Rating : Satisfactory