



<b>1. Project Data:</b>		<b>Date Posted :</b> 08/10/2005	
PROJ ID: P040513		<b>Appraisal</b>	<b>Actual</b>
<b>Project Name:</b> 2nd Henan Prov Hwy	<b>Project Costs (US\$M)</b>	605.6	621.3
<b>Country:</b> China	<b>Loan/Credit (US\$M)</b>	210.0	177.9
<b>Sector(s):</b> Board: TR - Roads and highways (99%), Sub-national government administration (1%)	<b>Cofinancing (US\$M)</b>	0	0
<b>L/C Number:</b> L4027			
	<b>Board Approval (FY)</b>		96
<b>Partners involved :</b>	<b>Closing Date</b>	12/31/2002	12/31/2004
<b>Prepared by :</b>	<b>Reviewed by :</b>	<b>Group Manager :</b>	<b>Group:</b>
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**2. Project Objectives and Components**

**a. Objectives**

The objectives of the project were to:

- (a) support the continuing development of road infrastructure to relieve congestion, facilitate mobility and increase the efficiency of road transport in the interest of stimulating economic activity by supporting a key highway link in a high-priority east-west corridor and a slice of the Henan highway investment program in county and village roads during the Ninth Five Year Plan (9FYP);
- (b) assist in the implementation of policies to alleviate poverty in the poor areas of the province;
- (c) promote development of institutional capabilities of Henan Provincial Communications Department (HPCD), through training and other means, in planning, design, operations and maintenance of Henan's highway network; and
- (d) increase the safety of road transport.

**b. Components**

The project had the following four components:

- A. New construction in the main corridor between Zhengzhou, capital of Henan Province, and the border with Shaanxi Province to the west (appraisal US\$359.6 million, actual US\$ 442.8 million), consisting of: (i) the Luoyang –Sanmenxia Expressway (LSE), a 136 km long, four-lane divided access-controlled highway, including supply and installation of electrical, electronic and mechanical equipment for toll collection, telecommunication and lighting facilities, as well as construction of service areas and management and maintenance buildings; (ii) construction of the Yangjia-Baijiazhai Connection (YBC), a 6 km, two-lane expressway to link the Weinan-Tongguan Expressway (WTE) in Shaanxi Province with the existing National Highway 310 in Henan Province; (iii) construction, rehabilitation and upgrading of four linking roads with a total length of about 17km that would interconnect and feed traffic to LSE at selected interchanges; and (iv) construction supervision.
- B. Improvement and new construction of about 1,700 km of rural roads in a Road Improvement for Poverty Alleviation (RIPA) program targeting poor counties in Henan (appraisal US\$70.3 million, actual US\$114.0 million).
- C. Institutional development (appraisal US\$14.9 million, actual US\$10.9 million) consisting of strengthening relevant institutions affiliated with Henan Provincial Communications Department (HPCD) through staff training and provision of equipment; construction and equipping a Science Technology Center for research in the highway sector; and a study of Organization, Management and Maintenance of Toll Highways.
- D. A highway safety program (appraisal US\$1.7 million, actual US\$5.0 million) consisting of improved coordination among the main responsible agencies, identification and improvement of black spots, provision of specialized equipment, and a study of Factors Contributing to Traffic Accidents.

**c. Comments on Project Cost, Financing and Dates**

The Loan Agreement was amended four times. The first time was in January 2001 to extend the loan closing date

from December 31, 2002 to December 31, 2004 to enable the borrower to complete the traffic engineering component on LSE. The second time was in July 2001 to extend the scope of the traffic engineering component to cover the expressway section between Sanmenxia and Shaanxi border. The third time was in August 2002 to reallocate the proceeds between loan categories. The actual loan amount disbursed is US\$177.9 million and a total of US\$32.1 million was cancelled.

### 3. Achievement of Relevant Objectives:

The objective to support the development of road infrastructure to relieve congestion, facilitate mobility and increase the efficiency of road transport in the interest of stimulating economic activity was achieved. The LSE was opened to traffic in December 2001 and has contributed significantly to reduction in congestion in the corridor. The total traffic in the corridor is distributed as follows: one quarter on the existing highway and three quarters on the new LSE. The average vehicle speed on LSE corridor is 70 km per hour. With the construction of LSE, economic activity in the counties along LSE increased. The Gross Output Value of Agriculture and Industry (GOVAI) for these counties increased from Y51.1 billion to Y66.5 billion between 1999 and 2004, a growth rate of 5.5% (however, much lower than the 10% overall growth rate for China).

The objective to alleviate poverty in the poorer counties of Henan province by the provision of better road access was achieved. Under the Road Improvement for Poverty Alleviation (RIPA) program a total of 1,948 km of roads were constructed, representing 87 road segments in 29 poor counties of the province (compared to appraisal target of 1,667 km, 30 road systems in 29 counties). The roads (presumably that served poorer areas) that were closed for more than 30 days are now open throughout the year. Industries employing the poor such as aquaculture, mining, processing, and food industry sprang up near the roads. The GOVAI increased from 83.3 units to 131.6 units between 1999. The living standards of people in poor counties in Henan also improved. Housing areas increased in square meter per capita by 33%, power consumption per capita by 21%, passenger transport volume by 32% and rural telephone by 160%.

The objective to improve highway sector institutional capacity in Henan was achieved through overseas and domestic training and study tours which provided modern skills for road construction, management and maintenance. Based on the recommendations of the Study on the Organization, Management and Maintenance of Toll Highways, the Expressway Construction Bureau of HPCD was restructured into a commercial Expressway Development Company.

The objective to increase highway safety was not achieved. Black spot identification and improvements were carried out and the project assisted in the development of safety audit procedures as well as better coordination with traffic Police. However, the statistics on traffic accidents were only marginally improved. A *Study of Factors Contributing to Highway Traffic Accidents* was conducted and the ICR notes that the study recommendations are being used to design the safety component of the follow-on project.

### 4. Significant Outcomes/Impacts:

- The RIPA program improved the accessibility for the people in poor counties of Henan and substantially improved their living standards.
- The Science Technology Center was established to undertake research activities in the highway sector.
- The HPDC instituted monitoring of: (a) the quality of civil works, (b) environmental impacts, and (c) road safety.
- The Leading Group for Road Safety Coordination and its Secretariat were established to provide assistance in implementing the road safety activities under the project which included improvement in accident data reporting and analysis and the establishment of safety audit procedures.

### 5. Significant Shortcomings (including non-compliance with safeguard policies):

- Poor supervision during early stage of construction. The contractors progress schedules for expressway construction were not strictly controlled at initial stage of construction.
- Substantial delays in the procurement of traffic engineering works resulting in a two year extension of the loan closing date.

6. Ratings:	ICR	OED Review	Reason for Disagreement /Comments
Outcome:	Satisfactory	Satisfactory	
Institutional Dev.:	Substantial	Substantial	

<b>Sustainability :</b>	Likely	Likely	
<b>Bank Performance :</b>	Satisfactory	Satisfactory	
<b>Borrower Perf .:</b>	Satisfactory	Satisfactory	
<b>Quality of ICR :</b>		Satisfactory	

**NOTE:** ICR rating values flagged with '\*' don't comply with OP/BP 13.55, but are listed for completeness.

**7. Lessons of Broad Applicability:**

- Well designed covenants on road maintenance can be an effective device to engage the Borrower and maintain a dialogue on the road maintenance issue. Highway maintenance was considered an important sector issue but no specific component was included in the project. Instead a covenant in the Project Agreement called for Annual Highway Maintenance Reports to be submitted to the Bank for joint reviews. This proved to be quite effective and the need to modernize the maintenance systems and tools in the province became apparent. This was addressed under the follow-on project.
- For institutional strengthening activities to be effective, key ingredients for project's experience appear to be: support from central and provincial level; firm grounding in sectoral strategy; proper and timely selection of local/foreign consultants; and recognizing that process of change takes time and devising short-term and long-term action plans.

**8. Assessment Recommended?**  Yes  No

**Why?** Field assessment is recommended for three reasons: (i) to verify project ratings; (ii) draw lessons from RIPA program; and (iii) as part of a cluster of transport projects in China.

**9. Comments on Quality of ICR:**

The quality of ICR is satisfactory. It covers all the relevant issues relating to the implementation experience and the outcome of the project. However, there are two main shortcomings: (i) The ICR does not comment on the selection of the poor counties (as discussed in Annex 1 of the appraisal document) or their poverty profile, nor does it provide evidence that only the poor were targeted under the RIPA program; and (ii) The ICR does not report fully on the key performance indicators noted in the SAR (Annex 9, Tables 1 and 2).