



Validation Report

Reference Number: PVR-440
Project Number: 36005
Loan Number: 2050
December 2015

India: Chhattisgarh State Roads Development Sector Project

Independent Evaluation Department
Asian Development Bank

ABBREVIATIONS

ADB	–	Asian Development Bank
ARD	–	Agency for Road Development
EIRR	–	economic internal rate of return
km	–	kilometer
MPRSD		Master Plan for Road Sector Development
PCR	–	project completion report
PIU	–	project implementation unit
PPER	–	project performance evaluation report
PPMS	–	project performance monitoring system
PWD	–	Public Works Department
RMC	–	Road Management Committee
RRP	–	report and recommendation of the President
TA	–	technical assistance
VOC	–	vehicle operating cost

NOTE

In this report, “\$” refers to US dollars.

Key Words

adb, asian development bank, chhattisgarh, economic internal rate of return, eirr, india, master plan for road sector development, mprsd, pcr, performance evaluation, piu, project implementation unit, roads, technical assistance, validation

The guidelines formally adopted by the Independent Evaluation Department (IED) on avoiding conflict of interest in its independent evaluations were observed in the preparation of this report. To the knowledge of IED management, there were no conflicts of interest of the persons preparing, reviewing, or approving this report.

In preparing any evaluation report, or by making any designation of or reference to a particular territory or geographic area in this document, IED does not intend to make any judgments as to the legal or other status of any territory or area.

PROJECT BASIC DATA

PROJECT BASIC DATA				
Project Number:	36005	PCR Circulation Date:	Aug 2014	
Loan Number:	2050	PCR Validation Date:	Dec 2015	
Project Name:	Chhattisgarh State Roads Development Sector Project			
Country:	India		Approved (\$ million)	Actual (\$ million)
Sector:	Transport and ICT	Total Project Costs:	285.70	281.57
ADB Financing: (\$ million)	ADF: 0.00	Loan:	180.00	160.42
		Borrower:	105.70	121.15
	OCR: 180.00	Beneficiaries:	0.00	0.00
		Others:	0.00	0.00
Cofinancier:		Total Cofinancing:	0.00	0.00
Approval Date:	15 Dec 2003	Effectiveness Date:	14 Mar 2005	14 Jan 2005
Signing Date:	14 Dec 2004	Closing Date:	31 Jul 2009	9 Apr 2012
Project Officers:	N. Zhang A. Akanda A. Motwani S. Tsukada A. Bajaj P. Dutt A. Motwani A. Bajaj	Location: ADB headquarters India Resident Mission India Resident Mission India Resident Mission India Resident Mission India Resident Mission India Resident Mission India Resident Mission	From: Dec 2003 Feb 2004 Jun 2005 Oct 2005 Feb 2007 Nov 2007 Jan 2009 May 2009	To: Jan 2004 May 2005 Sep 2005 Jan 2007 Oct 2008 Dec 2008 Apr 2009 Apr 2012
Initial Reviewers:	J. Supangco, Consultant F. D. De Guzman, Senior Evaluation Officer, IED2	Peer Reviewer:	T. Yokota, Senior Evaluation Specialist, IED2	
Quality Reviewer:	B. Nguyen, Senior Evaluation Specialist, IED2	Director:	B. Finlayson, IED2	

ADB = Asian Development Bank; ADF = Asian Development Fund; IED2 = Independent Evaluation Department, Division 2; OCR = ordinary capital resources; PCR = project completion report.

I. PROJECT DESCRIPTION

A. Rationale

1. During the project preparation stage, the poor quality of roads impeded the growth potential of Chhattisgarh, a newly formed state and one of the poorer states in India.¹ The ride quality of most roads ranged from poor to very poor. Bad roads increased transport bottlenecks and resulted in poor transport services for the entire local economy, especially the rural poor and tribal populations. The institutional and technical capacity of the Public Works Department (PWD) was reaching its limit in the areas of sector and investment management of state roads.

¹ Chhattisgarh state was formed on 1 November 2000. It was formerly part of Madhya Pradesh.

The 10 years of inherited neglect of investment in road improvement and maintenance caused serious deterioration of most state roads (report and recommendation of the President [RRP]).²

2. The Government of Chhattisgarh prepared a 10-Year Master Plan for Road Sector Development (MPRSD), 2003–2012. This became the basis for the approval of a priority investment program to improve, rehabilitate, strengthen, and widen about 5,000 kilometers (km) of state roads. Of this length, about 1,700 km of state roads in Chhattisgarh was to be improved through a sector lending modality (project completion report [PCR]).³

B. Expected Impact

3. The project's expected impact was the promotion of economic and social development and reduction of poverty and isolation of disadvantaged groups in Chhattisgarh.

C. Objectives or Expected Outcome

4. The project had four expected outcomes. The first was reduced transport costs and travel times on state roads. The second was improved access of the rural poor to social services, markets, and other economic activities. The third was reduced road accidents, injuries, and deaths. The fourth was the provision of effective and efficient management of state and major district roads.

D. Outputs

5. The project had two envisaged outputs. The first output was about 1,700 km of improved state roads, which were part of the MPRSD for the north–south and east–west corridors.⁴ The others were connectivity roads linking development centers and improved rural roads under the Pradhan Mantri Gram Sadak Yojana.⁵ The sample core subproject consisted of road sections between Konta and Jagdalpur in southern Chhattisgarh, with a total length of 148 km, which represented the common features of project improvement works, including pavement reconstruction for the entire length, and widening of roads from single to intermediate lanes, and from intermediate lanes to two lanes.

6. The remaining subprojects of 1,552 km (RRP, Appendix 5) were to be selected, prepared, and approved in two phases, based on the selection criteria and approval procedures. This output was to include, on a pilot basis, provisions in civil works contracts requiring contractors to maintain the same scope of works from 6–8 years, including the first periodic maintenance (RRP, para. 42).

7. The second envisaged output was institutional reform and capacity building. It involved the improvement of road maintenance funding and management, the establishment of a Road Management Committee (RMC) and the Agency for Road Development (ARD), and putting in

² ADB.2003. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to India for the Chhattisgarh State Roads Development Sector Project*. Manila.

³ ADB. 2014. *Completion Report: Chhattisgarh State Roads Development Sector Project in India*. Manila.

⁴ Road improvement works were to include mainly reconstruction of pavement, repair and strengthening of major bridges and culverts, improvement of cross drainage systems, and reconfiguration of pavement (if traffic volumes and existing right-of-way could justify it).

⁵ The Pradhan Mantri Gram Sadak Yojana was launched on 25 December 2000 as a fully funded Centrally Sponsored Scheme to provide all-weather road connectivity in rural areas of the country. The program envisages connecting all habitations with a population of 500 persons and above in the plain areas; and those with 250 persons and above in hill states, and in the tribal and desert areas.

place management systems for road planning, procurement, construction, and operation and maintenance. Other areas under this output involved the provision of staff training and capacity building in road management functions; increased private sector participation in road planning, construction, and maintenance; introduction of a road safety program; and sustained funding for road operation and maintenance.

E. Provision of Inputs

8. The project was approved on 15 December 2003 and became effective on 14 January 2005. Civil works were completed substantially 35 months later than anticipated (PCR, para. 18), resulting in two loan extensions and loan closing of 3 years later than expected (Expected: 31 July 2009, Actual: 9 April 2012). The total project cost at approval was \$285.7 million equivalent. The Asian Development Bank (ADB) was to provide a loan of \$180.0 million, while the government would finance the balance. At completion, the actual cost was reduced to \$281.6 million equivalent as a result of a few changes during project implementation. The estimated cost of the sample subproject (Konta–Jadgalpur road) was \$16.0 million and \$205.0 million was earmarked for improving the remaining 1,600 km under the project's sector loan modality.

9. The sample subproject was subsequently excluded from the project scope since it was declared a national highway. The cost of civil works contracts increased to \$257.24 million due to variations and inflation-driven price escalation (PCR, para. 13). The allocation of \$1.70 million for consulting services for institutional reforms was not utilized as the services were funded through an increase in the amount of the attached technical assistance (TA). The amount of \$6.85 million for utility shifting, tree cutting and plantation, and resettlement was incurred, which was not anticipated at appraisal.⁶ These changes led to a revision in the project's financing plan. ADB financing decreased from \$180.00 to \$160.42 million while the government financed the costs for the civil works after loan closing. At loan closing, the remaining undisbursed amount of \$19.60 million was canceled.

10. The project was classified Category B under the ADB environmental categorization. An initial environmental examination was undertaken for sample subprojects. Results showed that these may generate minor environmental impacts during construction. An environmental management and monitoring plan was developed as an integral part of the initial environmental examination report to address potential moderate impacts identified. The PCR mission observed that the completed project generally improved environmental quality. The executing agency confirmed that there were no complaints from the local community on environmental aspects for any of the activities carried out under the project (PCR, para. 43).

11. At appraisal, the project roads were not expected to involve land acquisition. Involuntary resettlement was anticipated to be limited to the dismantling of some structures in encroachments at a few locations (PCR, para. 44).⁷ However, during implementation, compliance with the safety requirement and design standards became a concern since these might cause a few land acquisitions. Thus, a related clause in the loan agreement was subsequently amended to allow land acquisition (PCR, para. 45). Short resettlement plans were likewise prepared in line with the ADB Involuntary Resettlement Policy (1995). The project

⁶ Likewise, due to the extended consulting services, the cost allotted for construction supervision increased by \$0.77 million. However, the loan interest during construction and commitment charges was only \$9.07 million compared with the appraisal estimate of \$19.00 million.

⁷ Less than 200 persons were expected to be affected with insignificant impacts for all subprojects, including the core project road (RRP, Appendix 9, footnote 3).

implementation unit (PIU) was assisted by two nongovernment organizations in implementing resettlement activities. Also, the PCR indicated that a two-tier grievance redressing mechanism was set up with representatives from various stakeholders.

12. The PCR noted that 193 families were to be affected. A total of Rs3.08 million was disbursed to these affected families to compensate for the loss of income and structures (PCR, para. 45). Both the PCR and RRP did not indicate the resettlement cost that was expected at appraisal. The RRP indicated that the project was to be confined to existing road alignment so that tribal and scheduled caste groups within the influence area will not be affected (RRP, Appendix 9, para. 19). The PCR did not indicate if indigenous peoples were affected during project implementation.

13. At appraisal, a total of 198 person-months of international consulting services were required for subproject selection and preparation, construction supervision and project implementation, monitoring and evaluation, and environmental management and monitoring. For domestic consulting services, 1,115 person-months were required. A total of 8,347 person-months of consulting services were provided—comprising 105.7 person-months of international and 8,241.4 person-months of national consulting services. During implementation, ADB approved an increase of \$1.6 million in the project preparatory TA⁸ to enhance the TA scope in order to accommodate institutional reform and capacity building.

14. The original Chhattisgarh State Roads Sector Development (TA 3995-IND) project was awarded on 22 April 2003. However, the consultant failed to meet the expectations of the client and was terminated. A second consultant was contracted under the enhanced TA project on 24 April 2006. Upon the request of the government, the TA focused on the project's institutional reform and capacity building component. The TA outputs included the (i) audit of the institutional framework of the PWD and review the state's road policies; (ii) conduct of a pilot study on road monitoring and programming; (iii) preparation of guides, manuals, and handbooks on procurement procedure, quality control, service outsourcing, equipment for road management, road safety, maintenance planning, and social and environmental safeguards; (iv) support for the PIU in maintaining computerized accounts; (v) provision of hands-on and classroom training; (vi) design of interactive tools for road maintenance funding; (vii) review and provision of recommendations for improving road transport services; and (viii) development of a human resource plan for the PWD staff. In addition, two international training sessions were organized—one in Australia in August 2007 with 14 PWD officials, and one in the United States in May 2008 with three PWD officials. Upon completion, the consultants submitted a final report, five independent sub-reports, and many other technical reports and papers. Extensive in-country training sessions and workshops were conducted to discuss and disseminate the TA outputs. The TA project was rated successful.⁹

F. Implementation Arrangements

15. The PWD was the executing agency for the project. It provided adequate oversight, coordination, and financial support required for project implementation. The PIU was responsible for the day-to-day project implementation and management. The RMC, as envisioned, was established in 2003. It oversaw and provided policy support and coordination

⁸ ADB. 2006. *Chhattisgarh State Roads Sector Development (TA 3995) (Supplementary)*. Manila; ADB. 2008. *Chhattisgarh State Roads Sector Development (TA 3995) (Reallocation of Funding)*. Manila.

⁹ ADB. 2014. *Technical Assistance Completion Report: Chhattisgarh State Roads Sector Development in India*. Manila.

among related government agencies. Although implementation arrangements seemed appropriate, issues cropped up on the inadequacy of the PIU technical staff and their limited capacity for project implementation. These were later resolved with the mobilization of a technical adviser provided under the TA project.

16. The PCR noted that the executing agency complied with most loan covenants. However, the covenant on establishing the ARD and then transforming it to the dedicated road authority was only partly complied with. The covenant on implementing a community road safety program was also partly complied with (PCR, para. 21). This validation notes that aside from these two, the covenants on transferring the responsibility for project administration to a special purpose vehicle and on the audit of project expenditures by independent auditors acceptable to ADB were also partially complied with.

II. EVALUATION OF PERFORMANCE AND RATINGS

A. Relevance of Design and Formulation

17. The PCR rated the project *relevant*. It noted that the project was consistent with the government's strategies for economic growth and to the highways and roads development as set out in the 11th Five Year Plan 2007–2012,¹⁰ and in the ADB country partnership strategy. This validation is of the view that the project was in line with the country's development objectives and plan and with ADB country and sector strategies. The selection of sector loan modality allowed flexibility since the exact scope of work could be determined after the conduct of field surveys and engineering design.

18. This validation notes the exclusion from the project scope of the sample core subproject—the 100.3 km Kanta–Jadgalpur road—as this road was declared a national road (para. 8). The removal did not affect its purpose as a model for the government in the preparation of the remaining subprojects during project implementation. However, this could imply inadequate consultation with the national government on plans for roads in the state during project preparation. Nonetheless, this validation considers that the project's selection criteria and approval procedures (PCR, para. 8) and the 10-year MPRSD (2003–2012) for Chhattisgarh (PCR, para. 5) allowed the gap in kilometer coverage to be readily filled up. On the whole, this validation assesses the project *relevant*.

B. Effectiveness in Achieving Project Outcome and Outputs

19. The project's output performance was to be measured against the improvement of about 1,700 km of state roads and institutional reform and capacity-building measures. The performance indicators of the project had four expected outcomes. The first outcome had the following indicators: (i) increased traffic from the current low levels to the projected traffic levels at 6% growth per year, (ii) reduced vehicle operating costs (VOCs), (iii) reduced travel times between all locations in the state, (iv) lower freight and passenger transport charges (in real terms), (v) increased volume of marketed agricultural products, and (vi) increased motor vehicle ownership in tribal and economically deprived areas.

¹⁰ Planning Commission, Government of India. 2008. *Eleventh Five Year Plan, 2007–2012*. New Delhi.

20. The second outcome had the following indicators: (i) increased public transport services in rural areas; (ii) increased population or number of habitations accessed by all-weather, year-round roads; and (iii) reduced travel times to access health, education, and other essential services. For the third outcome, reduced accidents, death, and injury rates were the indicators.

21. The fourth outcome had the following indicators: (i) establishment of RMC to be responsible for road sector management and coordination of road sector agencies and external stakeholders; (ii) establishment of ARD in the PWD to be responsible for managing state and major district roads; (iii) introduction of modern management procedures for road planning, project implementation, and operations and maintenance; (iv) an adequately equipped ARD with a computerized management information system, financial accounting systems, and operational systems, including transport and technical facilities; (v) an ARD that is staffed with qualified and trained personnel; and (vi) sustained and adequate funding for road operation and maintenance. This validation notes that most of the outcome indicators had no baseline and target values, including the expected time for meeting the targets.

22. The PCR rated the project *less than effective* in achieving its purposes and outcomes. This validation notes that only 1,187.5 km of roads were improved under the project, compared to the target of 1,700 km (PCR, Appendix 2). Hence, only about 70% of the target roads were achieved. In addition, while the target outputs on institutional reform and capacity were largely attained, these were accomplished through the associated TA project.

23. On the achievement of outcomes, the PCR indicated that average vehicle speeds on project roads increased from 20–30 km/hour before the project to 40–60 km/hour after project completion. It also indicated that VOCs decreased by an average of 23% after project completion. Transport charges decreased from Rs1.45/ton-km to Rs0.45/ton-km for freight and from Rs2.00/km to Rs0.90/km for passengers during 2006–2011. Other notable project outcomes included the following: (i) increased number of motor vehicles by 65% during 2007–2011, (ii) frequency of bus services improved to 10–30 minutes on most project roads, and (iii) reduced travel time to social services by 50% on average in the project area. The PCR indicated that most of the institutional reform and capacity-building measures were implemented through the assistance of the associated TA, which significantly improved the effectiveness and efficiency of the state road sector management system (PCR, para. 33). This validation is of the view that since the project failed to meet the targeted road output by a substantial margin, its achievement of outcomes was only based on the actual km of roads improved. On the whole, this validation assesses the project *less than effective*.

C. Efficiency of Resource Use in Achieving Outcome and Outputs

24. The PCR rated the project *efficient*. It reestimated the economic internal rate of return (EIRR) of project roads utilizing the methodology similar to that used at appraisal. The EIRR was reestimated at 18.9% for the whole project, as compared to the 17.5% estimated at appraisal for the sample road.

25. The PCR indicated that project implementation delays adversely affected its efficiency (PCR, para. 34). The initial delay was caused by insufficient project readiness, inadequate dedicated staff assigned by the PWD, delays in finalizing the design reports and bid documents, and time needed to obtain environment and/or forest clearance for tree cutting. During construction, the delays were caused by poor performance of some contractors and attacks from a local political group called Naxalite (PCR, para. 47). In total, civil works were substantially completed 35 months later than anticipated at appraisal and the project required

two loan extensions (para. 8). In addition, this validation notes that project resources appeared to be overly utilized vis-a-vis the actual outputs achieved. Actual total output completed was about 70% of what was envisaged (para. 22). However, 89% of funds were utilized to complete this output.

26. On the recalculated EIRR, this validation notes the following methodological shortcomings. First, the PCR indicated that the EIRR was recalculated for the whole project. However, it did not indicate whether all subprojects or a sample of subprojects were included in the recomputation and how the individual subproject EIRRs were aggregated into the project's overall EIRR. A disaggregated approach could have been used instead of aggregating all subprojects, to provide a clear picture of each subproject roads' viability. Second, the PCR implied that the project started to generate economic benefits in 2008 (PCR, Appendix 11, A11.4). However, most civil works were completed toward 2011 (PCR, Appendix 5). Third, the incremental analysis appeared to be weak since the difference between the "with-project" and "without-project" scenarios in estimating net economic benefits, especially on time savings, was not explained. The method for estimating travel time savings and actual values used were not clear. This validation notes that time savings benefits, which were not included in the appraisal estimation of economic benefits, appeared to be on the high side and even exceeded VOC savings at some years.¹¹ In addition, a further 10% was added to the VOC and time savings as other benefits without empirical justification (PCR, Appendix 11, para. 4). Based on these observations, this validation assesses the project *less than efficient*.¹²

D. Preliminary Assessment of Sustainability

27. The PCR rated the project *likely sustainable*. It noted that the PWD had a well-developed institutional framework and budget for road maintenance. The PCR indicated that the PWD allocated about 20% of its annual budget for maintenance or an average of Rs2,800 million for 2010/11 and Rs5,675 million for 2012/13. It also indicated that the budget allocation for road maintenance was assessed to fully meet road maintenance needs (PCR, para. 38). However, the PCR also noted the need for the PWD to implement modern road maintenance concepts and tools to increase the efficiency of road maintenance and for the Government of Chhattisgarh to prepare an adequate annual budget to ensure that project road maintenance was conducted in a timely and proper basis. These were addressed by the attached TA to the project and enhanced the capacity of the PWD to adequately maintain roads.

28. The PCR also pointed out the need for the PWD to sustain its road safety campaigns, driver training, and identification of potential accident black spots to address increased vehicle speeds in mixed traffic conditions, including provision of pedestrian facilities. It was apparent that, while the project incorporated significant road safety measures including traffic signs and safety facilities, and conducted several road safety campaigns and activities, the improved road condition resulted in vehicles tending to exceed the speed limit. Pedestrians and mixed traffic of motorcycles, nonmotorized vehicles, and animal-driven carts also continued using the project roads, particularly near residential and commercial areas. On the whole, this validation assesses the project *likely sustainable*.

¹¹ Expectations would be that VOC savings would be significantly greater than time savings, given that most of the project roads seem to have an annual average daily traffic of 1,600–1,800.

¹² The regional department disagrees with the downgrade of the PCR rating.

E. Impact

29. The project's impact was to be assessed based on these three performance indicators: (i) increased per-capita income of the state; (ii) reduced poverty and unemployment in rural areas; and (iii) improved access of disadvantaged groups to health, education, and other essential social services. The indicators had no baseline and target values, including the expected time when the targets were to be achieved. The PCR rated project impact *significant*. It noted that average household income increased by 10%–11% in the project area and local skilled and unskilled laborers were employed in the construction of the project roads, generating 34,850 person-years of direct employment opportunities, including 11,497 person-years for unskilled laborers and 3,451 person-years for women. The PCR mission observed that local transport services and roadside businesses were booming, which has generated additional working opportunities in and around the project area (PCR, Appendix 12, para. 8).

30. Likewise, the PCR indicated that (i) vehicle registrations had increased from 200, 477 units in 2007/08 to 330, 264 units in 2010/11 for an annual growth rate of 18%; (ii) vehicle travel time on the project roads decreased by about 40%–50%, and farmers can travel more easily to larger markets and get higher prices for agriculture products; (iii) adequate passenger transport services are operating, mainly mini buses and large jeeps, and bus service frequency has improved to 10–30 minutes on most project roads; and (iv) land prices along the project roads have escalated (3–4 times) due to the improved project roads (PCR, para. 41). Based on these observations, this validation assesses project impact *significant*.

III. OTHER PERFORMANCE ASSESSMENTS

A. Performance of the Borrower and Executing Agency

31. The PCR rated the performance of the borrower and executing agency *satisfactory*. It noted that the relevant government agencies, such as the Department of Economic Affairs of the Ministry of Finance, participated in the coordination and monitoring of project implementation during the tripartite portfolio review meetings. Also, the government provided more counterpart funding for the project than envisaged at appraisal (PCR, para. 28). Likewise, most of the loan and project covenants related to institutional development, road sector development, financial support, and social and environmental safeguards were complied with. Initial difficulties due to the inexperience of the executing agency and PIU were resolved with ADB assistance and the executing agency's mobilization of additional technical staff (para.15). Given that the project was the first ADB loan to Chhattisgarh, this validation views the performance of the borrower, as well as the executing agency, *satisfactory*.

B. Performance of the Asian Development Bank

32. The PCR rated ADB performance *satisfactory*. It indicated that ADB delegated project administration to the India Resident Mission after project approval. ADB was closely involved in resolving issues through tripartite portfolio review meetings and project review missions during implementation. It conducted 12 review missions—including inception, special loan administration, and midterm review missions—and provided significant inputs to the PIU in preparing detailed action plans for expediting progress, among other things. The PCR also indicated that approval of documents at the processing and implementation stages, including claims for payment, was done on a timely basis. Likewise, ADB was responsive to government's request. For instance, it provided training on various areas of project implementation and extended the loan closing date twice to facilitate project completion. The PCR noted that the

government recognized the role of ADB in providing timely advice on technical and contract administration matters. Based on the foregoing, this validation views ADB performance *satisfactory*.

IV. OVERALL ASSESSMENT, LESSONS, AND RECOMMENDATIONS

A. Overall Assessment and Ratings

33. The PCR rated the project *successful*. This validation rates the project *less than successful* on account of lower rating on efficiency. The project was *relevant* in relation to the strategies of the government and ADB to the development issues in the project area. The sector loan modality that was adopted allowed for flexibility in project selection despite the exclusion from the project scope of the sample core subproject. The project was *less than effective* since only about 70% of the primary target output, in terms of roads improved, was achieved. On efficiency, the project incurred implementation delays and funds appeared to be overly utilized compared to the outputs that were actually completed. On sustainability, budget allocation for road maintenance appears to be adequate.

Overall Ratings

Criteria	PCR	IED Review	Reason for Disagreement and/or Comments
Relevance	Relevant	Relevant	
Effectiveness in achieving outcome and outputs	Less than effective	Less than effective	
Efficiency in achieving outcome and outputs	Efficient	Less than efficient	The project was delayed for about 3 years and resources were overly utilized as compared to actual outputs. Issues on EIRR methodology were also noted (paras. 24–26).
Preliminary assessment of sustainability	Likely sustainable	Likely sustainable	
Overall assessment	Successful	Less than successful	
Impact	Significant	Significant	
Borrower and executing agency	Satisfactory	Satisfactory	
Performance of ADB	Satisfactory	Satisfactory	
Quality of PCR		Satisfactory	Refer to para. 37.

ADB = Asian Development Bank, EIRR = economic internal rate of return, IED = Independent Evaluation Department, PCR = project completion report.

Source: ADB Independent Evaluation Department.

B. Lessons

34. The PCR identified some important lessons from the project. Project preparation should be undertaken before approval to avoid or minimize implementation delays. For future projects, the qualification criteria for contractors should be strengthened to improve contractors' performance. In particular, contractual provisions related to contractor performance—such as mobilization, staffing, and deployment of equipment and funds—need to be strengthened to minimize the risk of poor performance. Measures to improve environmental performance of

projects were suggested, including ensuring timely mobilization and continuation of the systematic supervision by environment experts, monitoring, data mapping, and reporting mechanisms on the implementation of environmental safeguards. This validation has no additional lesson to offer.

C. Recommendations for Follow-Up

35. The PCR recommended the need to continue institutional reforms and capacity-building measures to further strengthen project sustainability. Also, the government should update the MPRSD from time to time. Likewise, road safety should be enhanced through campaigns, engineering interventions, and adequate pedestrian facilities. Moreover, the PCR recommended that the government should ensure adequate and timely funding for maintenance. This validation recommends that ADB should monitor the maintenance activities for the project roads to ensure sustainability. Of more pressing concern would be the continued allocation of sufficient funding to finance the maintenance requirements not only for the project roads, but also for all state and local roads.

V. OTHER CONSIDERATIONS AND FOLLOW-UP

A. Monitoring and Evaluation Design, Implementation, and Utilization

36. The PCR did not discuss the status of the project performance management system (PPMS). Two loan review mission reports discussed the submission of PPMS reports by the construction supervision consultant. However, the PCR did not indicate if the results of the baseline survey and other survey data that should have been produced by the PPMS were utilized in its assessment. As such, there may be a need to follow up on the implementation of the PPMS to determine if it is operational.

B. Comments on Project Completion Report Quality

37. The PCR quality is rated *satisfactory*. It was logically consistent, candid, and clearly presented and followed ADB guidelines. The main shortcoming was the lack of assessment of the PPMS. Given that the sample subproject was canceled, the PCR could have undertaken the economic reevaluation of at least a representative sample of the subprojects. Lessons and recommendations were adequate.

C. Data Sources for Validation

38. Data sources for this validation included the project's RRP, PCR, loan review mission reports, Country Assistance Plan of India for 2001–2003, ADB Country Strategy and Program 2003–2006 for India, TA Completion Report of TA 3995 IND: Chhattisgarh State Roads Sector Development, and India's 10th and 11th five-year plans.

D. Recommendation for Independent Evaluation Department Follow-Up

39. The PCR recommended that a project performance evaluation report (PPER) be prepared in 2016 or later, when the second road sector project¹³ has been substantially completed. Consequently, the traffic, maintenance, and physical condition benefits attained and impacts on poverty can be better assessed. The conduct of the PPER depends on a number of factors, such as (i) sustained implementation of the PPMS to ensure that the required data to

¹³ ADB. 2005. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to India for the Rural Roads Sector II Investment Program*. Manila.

measure project impacts would be available, especially traffic and socioeconomic data on subproject roads; (ii) availability of subproject evaluation studies conducted during project implementation; and (iii) PPMS reports prepared during project implementation, including baseline data collected. If the required information is readily available, the conduct of PPER may be recommended on or after 2016.