Validation Report
January 2019

India: Uttarakhand State-Road Investment Program (Project 1)

Reference Number: PVR-560
Project Number: 38255-023
Loan Number: 2308

Independent Evaluation ADB

Raising development impact through evaluation

ABBREVIATIONS

ADB	–	Asian Development Bank
CSC	–	construction supervision consultant
DMF	–	design and monitoring framework
EIRR	–	economic internal rate of return
IMC	–	implementation management consultant
INRM	–	India Resident Mission
km	–	kilometer
MFF	–	multitranche financing facility
PCR	–	project completion report
PIU	–	project implementation unit
PMU	–	project management unit
PPMS	–	project performance monitoring system
PWD	–	Public Works Department
RDP	–	road development program
VOC	–	vehicle operating cost

In this report, "$" refers to United States dollars.

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PROJECT BASIC DATA

Project Number	38255-023	**PCR Circulation Date**	31 August 2017	
Loan/Grant Numbers	2308	**PCR Validation Date**	Dec 2018	
Project Name	**Uttarakhand State-Road Investment Program (Project 1)**			
Sector and subsector	Transport	Road transport (non-urban)		
Strategic agenda	Inclusive economic growth			
Safeguard categories	Environment		A	
	Involuntary resettlement		A	
	Indigenous peoples		B	
Country			**Approved** ($ million)	**Actual** ($ million)
ADB Financing ($ million)	**ADF:** 0.00	**Total Project Costs**	74.00	63.00
	OCR: 50.00	**Loan/Grant**	50.00	40.30
		Borrower	24.00	22.70
		Beneficiaries	0.00	0.00
		Others	0.00	0.00
Cofinancier		**Total Cofinancing**	0.00	0.00
Approval Date	2 Jan 2007	**Effectiveness Date**	90 days from approval 25 Jan 2008	14 Jan 2008
Signing Date	25 Oct 2007	**Closing Date**	31 Mar 2012	1 May 2013
Project Officers		**Location**	**From**	**To**
	P. Dutt	India Resident Mission	Mar 2011	Jul 2012
	A.K. Motwani	India Resident Mission	Sep 2012	Aug 2017
IED Review				
Director	N. Subramaniam, IESP			
Team Leader	M. Gatti, Principal Evaluation Specialist, IETC*			

ADB = Asian Development Bank, ADF = Asian Development Fund, IED = Independent Evaluation Department, IESP = Sector and Project Division, IETC = Thematic and Country Division, OCR = ordinary capital resources, PCR = project completion report.
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I. PROJECT DESCRIPTION

A. Rationale

1. Uttarakhand State is located in northern India and bordered by the People's Republic of China, Nepal, and the Indian states of Uttar Pradesh and Himachal Pradesh. About 90% of the state's terrain is hilly and it has minimal external rail connections and air links. Roads are the principal transport mode.[1] About 30% of state highways and major district roads, and more than 70% of other district and village roads (representing about 65% of the road network) under the jurisdiction of Uttarakhand Public Works Department (PWD) need repair or rehabilitation.

[1] ADB. 2017. *Completion Report: Uttarakhand State-Road Investment Program (Project 1) in India.* Manila.

The poor condition of the road network was mainly due to inefficient road asset management—poor planning, budgeting, and supervision—and inadequate funding. Despite the extensive road network, the inadequacy of transport services has restrained economic growth.

2. The Government of India and Uttarakhand State Government saw that increased investment in road infrastructure would lead to improved personal mobility and accessibility, thus, reducing poverty and increasing personal incomes. The state government prepared its $1.2 billion 10-year Road Development Program (RDP) that covered seven sequential projects for implementation between 2007 and 2017. The aim was to improve roads to national standards and maintain the 16,800-kilometer (km) state road network in good condition. In 2006, upon the request of the central government, the Asian Development Bank (ADB) approved a $550 million multitranche financing facility (MFF) million divided into seven projects to finance part of the program. The first project would finance two components—infrastructure improvement and maintenance of 570 km of roads, and infrastructure management to initiate business processes reengineering of the PWD and increase its staff's management skills.

3. The state and central government financing was projected to be inadequate to implement the RDP. Thus, ADB's MFF was the most appropriate lending modality because its periodic funding would correspond to RDP's sequence of projects. Uttarakhand would be able to commit to its multi-year investment plan with guaranteed financing and be able to borrow incrementally according to the program's road map. The MFF demonstrated ADB's long-term commitment to the state's development, while closely monitoring progress of the road network and guiding development on a project-by-project basis.[2]

B. Expected Impacts, Outcomes, and Outputs

4. The anticipated impact of the MFF was increased economic growth and reduced poverty in Uttarakhand measured by a decrease of households below the poverty line in the program catchment area. The program outcomes were (i) increased efficiency of inter- and intra-state transport services, (ii) enhanced sustainability of the road network in good condition, (iii) increased operational transparency and governance of the PWD, and (iv) synergized national road development programs.

5. The intended outputs were (i) paved, repaired, or rehabilitated state roads—23 roads totaling about 570 km in length; and (ii) staff with improved skills and revised operating procedures—the infrastructure management component. This component included (a) assistance for the planning unit at PWD's headquarters to develop policies, set performance targets, and implement programming to ensure the quality and consistency of the road network; (b) assistance to establish a fully functional Road Board; (c) revisions to operating manuals for planning, design, construction, and maintenance in line with the PWD's vision and mission; (d) training PWD staff; and (e) workshops to increase awareness and skills of state civil works contractors.[3]

6. The design and monitoring framework (DMF) for Project 1 and the MFF program was one and the same.

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[2] ADB. 2006. *Report and Recommendation of the President to the Board of Directors on the Proposed Multitranche Financing Facility to the Government of India for the Uttaranchal State-Road Investment Program.* Manila.

[3] Footnote 1, Appendix 1.

C. Provision of Inputs

7. The loan was approved on 2 January 2007 and the loan agreement signed on 25 October 2007. Loan effectivity was 14 January 2008, less than 90 days from the date of the loan agreement. The expected loan closing date was 31 March 2012 with the actual loan closing date on 1 May 2013. The project incurred delays because of (i) local elections delayed the award of civil works contracts and recruitment of the construction supervision consultants (CSCs);[4] (ii) contractors' slow mobilization of resources; (iii) contractors' lack of efficient planning and project and construction management; (iv) CSC's inadequate deployment and frequent turnover of supervision staff; (v) discrepancies and shortcomings in the detailed project report;[5] and (vi) heavy rains and floods during the monsoon season.[6]

8. The total project cost at completion was $63.0 million, less than the $74.0 million appraisal estimate. Actual civil works cost was $54.7 million, lower than the $58.1 million estimated. The lower cost was attributed to the (i) depreciation of the rupee against the dollar,[7] (ii) non-utilization of price contingencies since the civil work contracts' completion period was only 15–18 months with no provision for price escalation, (iii) non-utilization of the physical contingencies allocation, and (iv) the exclusion of one subproject.[8]

9. The project was to be financed through an ADB loan of $50 million (68% of the project cost) and government funding of $24 million (32%). At completion, ADB financing was $40.3 million (64%) and government $22.7 million (36%). About $9.7 million of the loan amount was canceled.

10. At appraisal, it was estimated that 1,190 person-months of international and national consultants would be required—1,176 national and 14 international consultants' person-months. The PCR did not provide the actual number of consultants utilized at project completion.

11. The project was classified under category A of ADB's *Environment Policy* (2002), since two subproject roads—Almora–Bageshwar and Barechina–Sheraghat—in part lie within environmentally sensitive and protected areas inside the Binsar Wildlife Sanctuary. Project resettlement impacts were limited to four of 23 roads. Short resettlement plans were prepared based on survey findings and in consultation with stakeholders, in compliance with ADB's *Policy on Involuntary Resettlement* (1995). No impact on indigenous peoples was envisaged.

12. No technical assistance was attached to the project.

D. Implementation Arrangements

13. The executing agency was the Uttarakhand PWD, which established a project management unit (PMU) to oversee the project's day-to-day implementation. A program support consultant assisted the PMU to coordinate and facilitate timely processing and implementation of

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[4] ADB (South Asia Department). 2007. Special Project Administration Mission to India: Uttarakhand State-Road Investment Program in India (Project 1), Back-to-office report. 7 May (internal).
[5] ADB (South Asia Department). 2009. Review Mission to India: Uttarakhand State-Road Investment Program in India (Project 1), Back-to-office report. 23 June (internal).
[6] ADB (South Asia Department). 2011. Review Mission to India: Uttarakhand State-Road Investment Program in India (Project 1). Back-to-office report. 22 December (internal).
[7] The exchange rates used were Rs44.71 = $1.00 at appraisal and Rs53.64 = $1.00 at completion.
[8] The Pauri–Khirsu–Srinigar road (18 km), with an estimated cost Rs43.4 million, was implemented under another state government-financed program.

the investment program. An international consulting firm assisted the PMU to implement the infrastructure management component. Six project implementation units (PIUs) were to be established under the PMU to implement the project at local level, but only four were considered necessary by the PWD.[9] The PCR assessed the management and coordination between the PMU, PIUs, and consultants to be adequate. A steering committee was established to coordinate the implementation of the investment program, but did not meet regularly. As expected this was not an effective coordination mechanism. Each respective department reviewed the issues on their own and addressed these through interdepartmental consultations.

14. Uttarakhand's road subsector comprises road infrastructure administered by the PWD and transport services overseen by the Transport Department. The State Road Transportation Corporation operates inter- and intra-state land transport passenger services, while private operators provide the majority of freight and passenger services under permits issued by the state transport authorities (footnote 2). More than 90% of Uttarakhand's population and the two main drivers of the economy—agriculture and tourism—depend on road transport for intra- and intercity conveyance.

15. The PCR stated that 53 of the 54 loan covenants were complied with; one related to environmental safeguards was partially fulfilled. The validation finds that the PCR in some cases provided insufficient explanation on its assessment of loan covenant compliance. For example, the validation finds compliance to the following covenants was not clearly indicated in the PCR: (i) only four instead of six PIUs were established; (ii) it was not clear whether the project performance monitoring system (PPMS) was actually developed and operational; and (iii) the Road Board was established but only met twice, instead of the mandated biannual meetings.

II. EVALUATION OF PERFORMANCE AND RATINGS

A. Relevance of Design and Formulation

16. The PCR rated the project relevant. It noted that the project was an essential component of the state government's strategy to boost economic growth and reduce poverty through roads and highways development. It also supported the government's 10th to 12th Five-Year Plans that enunciated the need for adequate, cost-effective, and quality infrastructure to sustain growth. The project was aligned with ADB's country partnership strategies for India for 2006–2008 and 2009–2012.

17. The validation finds the project's design to be appropriate, although two deficiencies are noted. First, the infrastructure management component (IMC) should have been prioritized given that the project was the first ADB-funded to be implemented by Uttarakhand. Sufficient time should also have been provided for the recommendations of the IMC consultant to be validated, tested, and implemented, rather than just producing reports. The report findings and recommendations were important to the execution of ongoing and subsequent projects under the program. Second, the project design only provided to be used by local engineering consultants for construction supervision and to assist the PMU. The intention was to build capacity for the subsequent projects under the program, but this could have been better achieved if both international and national consultants with extensive road supervision experience were deployed simultaneously. This could have avoided the premature distress observed for the recently

[9] ADB (South Asia Department). 2007. Special Project Administration Mission to India: Uttarakhand State-Road Investment Program in India (Project 1). Back-to-office report. 27 May (internal). Eight PIUs were set up.

rehabilitated project road sections that were damaged during the 2010/2011 floods.[10] Also, there were discrepancies and shortcomings in the detailed project report that the CSCs rectified only during implementation.[11]

18. Considering the discussions and the design weaknesses noted above, the validation assesses the project to be relevant.

B. Effectiveness in Achieving Project Outcomes and Outputs

19. The PCR rated the project effective in achieving its intended outcomes and outputs. The PCR noted that the outcome and output performance targets in the DMF related to the program as a whole rather than just Project 1. For project-specific targets, the project either achieved or partially achieved these, contributing wholly or partially to the achievement of program targets. The impact target to reduce poverty was achieved as the head count poverty ratio declined to 11.3% in 2011–2012 against the target of 20.0% by 2017.

20. The supply and efficiency of inter- and intrastate transport services increased as the actual outcome indicators exceeded the targets as follows: (i) the number of goods vehicle permits issued per month increased from 660 to 786 in 2012, more than the 750 target; (ii) the State Road Transportation Corporation's bus utilization rate improved from 200 to 299 km per bus per day in 2012, more than the 250 km/bus/day target; and, as targeted, (iii) the number of stage-carriage permits issued per month increased from 15 to 20 in 2012.

21. Although a 3-year performance-based maintenance period for project roads was included in all civil works contracts, limited success was achieved due to the low capacity and inexperience of the PWD and contractors in implementing performance-based contracts. However, the PCR did not describe the limited success achieved nor estimated the cost reduction in routine maintenance if any, to determine whether this was aligned to the target. Also, this had significant implications on the roads' sustainability.

22. The project improved 546.5 km of state roads compared to the target of 572.6 km.[12] The PCR noted that the project improved the skills and capacity of PWD officials through training in design review, performance monitoring, quality assurance, road asset maintenance, financial management, and management information and project management system. The validation observed that the PCR did not provide any training evaluation data to validate whether staff and official skills and capacity did improve. The PCR noted that the IMC delivered several reports, although the validation determined that the findings and recommendations should have been piloted and implemented, tasks left to the consultant of the subsequent project to undertake.

23. The Road Board was established in 2009 and met only twice during the project implementation period, which was less than the biannual meetings frequency targeted.

24. The project was rated category A for environment risk due to two project roads—the Almora–Bageshwar and Barechina–Sheraghat roads—that passed through the Binsar Wildlife

[10] ADB (South Asia Department). 2014. Special Project Administration Mission to India: Uttarakhand State-Road Investment Program in India (Project 1). Back-to-office report. 14 February (internal). These damages were due to (i) inadequate protection and drainage works, (ii) inappropriate pavement design, (iii) non-adherence to technical specifications, and (iv) inadequate quality control and supervision.
[11] ADB (South Asia Department). 2009. Review Mission to India: Uttarakhand State-Road Investment Program in India (Project 1). Back-to-office report. 23 June (internal).
[12] Footnote 1, para. 8.

Sanctuary, an environmentally sensitive and protected area. In the report and recommendation of the President, there was no category rating given for resettlement of indigenous peoples. The PWD prepared 21 initial environmental examination reports and two environmental impact assessment reports for two roads. The PCR observed that overall implementation of environmental safeguards, including the environmental management and monitoring plan was initially weak but improved during project implementation. The CSCs' frequent replacement of key personnel affected the supervision of environmental safeguards, among others. The contractors' weak capacity and lack of awareness of the environmental management and monitoring plan and statutory requirements affected environmental safeguards compliance initially, although their capacity and supervision of environmental safeguards improved through regular training provided under the project.

25. The PCR noted that the PWD and the contractors confirmed that they had obtained all necessary approvals (including statutory environmental approvals) and permissions from the regulatory authorities. Although a few exceptions occurred for certain contracts where the approvals or renewal of approvals related to construction plants and equipment were delayed at the Uttarakhand State Environment Protection and Pollution Control Board (USEPPCB). Pending the approvals, the PWD allowed materials to be sourced from plants with valid consents from the USEPPCB.

26. On involuntary resettlement and land acquisition, the PCR considered institutional arrangements for planning, implementing, and monitoring resettlement activities adequate. Four of 23 project roads with resettlement impacts were (i) Dhakia–Gulabo–Pagia–Mukundpur, (ii) Almora–Bageshwar, (iii) Raniket–Mohan, and (iv) Kakrali–Thuligarh. Four short resettlement plans were prepared based on survey findings and stakeholder consultations. No land acquisition was envisaged and only 18 families were to be affected. At implementation, resettlement impacts were avoided on two of the four roads and only six families were impacted on the two remaining roads. There was no impact on the livelihood of the affected families.

27. On indigenous peoples, no impact was envisaged at appraisal, nor identified during implementation. The PCR assessed compliance with social safeguards satisfactory.

28. In consideration of the measures to reduce the impacts of resettlement significantly and the efforts on the part of ADB to remedy and improve performance during implementation, the project safeguards performance is rated satisfactory.[13]

29. The project met or exceeded some of the project-specific outcome performance targets (para. 20). However, the evidence of achieving the targets was descriptive, and lacked the statistics to back up the assessment. Moreover, there were difficulties experienced in achieving progress toward the outcome targets during this project's implementation. For example, the project did not yet meet outcome targets for the reduction in road routine maintenance cost; average service life of periodic maintenance works, which were targeted for 2012; and the increased of roads in good condition by 2010, as stipulated in the DMF. Also, output targets on state-wide programs and procurement of civil works have been partially or not yet achieved as targeted. Although it is noted that natural calamities had significantly affected the project's course, the DMF could have been revisited and adjusted. Based on these, the validation views the project less than effective.[14]

[13] ADB (Independent Evaluation Department). 2018. Project Safeguard Assessment: Uttarakhand State-Road Improvement Program (Project 1) in India. 5 April (internal).

[14] The regional department disagrees with this rating and retains the PCR rating of effective. Refer to Appendix 1.

C. Efficiency of Resource Use

30. The PCR rated the project efficient in achieving outcome and outputs on the basis of the economic reevaluation. It documented the project's economic reevaluation, adopting the same methodology used at appraisal but with updated data. The recomputed economic benefits were vehicle operating cost (VOC) and passenger travel time savings. The project financial costs were adjusted to economic costs using the same conversion factor of 0.9 utilized at appraisal.[15] The recomputed economic internal rate of return (EIRR) was 21.2% and net present value (NPV) at 12.0% discount rate was Rs1,952.6 million. The recalculated EIRR was higher than the 16.3% estimated at appraisal and was attributed to the increased vehicle traffic in 2016. The recomputed and appraisal EIRRs exceeded the 12.0% hurdle rate. Sensitivity tests conducted at project completion and based on reduced benefits and traffic growth, and increasing costs by 20.0%, indicated the project to be robust under all cases.

31. Attributed by the PCR to the higher actual 2016 traffic, no data were provided to compare actual 2016 average annual daily traffic to the appraisal estimate for the same year. There was no means of validating the increase in 2016 traffic as the cause of the large increase in VOC savings and the recalculated EIRR. The increase in 2016 traffic could be due to generated traffic and it is standard practice that VOC savings for generated traffic is 50% of normal traffic. There was also a substantial difference between the VOC and travel time savings for the do-minimum scenario at appraisal and PCR.

32. Based on its assessment, the validation views the project efficient.

D. Preliminary Assessment of Sustainability

33. The PCR rated the project likely sustainable. It noted that with subsequent damage caused by the heavy rains and floods of 2010–2011, and the natural disaster of 2013, the PWD implemented restoration works under a betterment program to remedy the damage and deficiencies of the project roads.

34. Upon completion, all 22 project roads were transferred to the PWD, Uttarakhand's agency responsible for maintaining state roads. An assessment of the financial capacity of the PWD and sufficiency of its road maintenance budget should have been undertaken. The project and other state roads are maintained using funds from PWD's annual budget. Since this budget is limited, there is likely to be insufficient funds to ensure proper maintenance of all roads under PWD responsibility.[16] It is also unlikely that sufficient maintenance resources can be provided[17] since the aggregate fiscal deficit of many states since FY2011 had increased and are close to the fiscal deficit ceilings imposed by the states' own fiscal responsibility laws.[18]

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[15] Footnote 2. The standard conversion factor of 0.9 was first adopted for road projects in India by the World Bank in 1997. It has since been endorsed by the Ministry of Road Transport and Highways for the economic evaluation of road projects in India. This standard conversion factor has also been used consistently in evaluating ADB- and World Bank-funded road projects.

[16] At appraisal, the state funding sources for road investments and maintenance were identified mainly as (i) direct revenue earned through road tax, (ii) license fees, (iii) freight operator's licenses, and (iv) passenger transport operator's licenses. The transport tax revenue goes into the state government's reserves and is not dedicated for road development. Revenues from vehicle taxes and licenses have been increasing at an average annual rate of around 15%. The maintenance budget estimate for fiscal year (FY) 2006 was more than twice that of FY2005, demonstrating an increased focus on maintenance operations.

[17] Footnote 2, Appendix 2.

[18] ADB. 2017. *Country Partnership Strategy India, 2018–2022: Accelerating Inclusive Economic Transformation*. Manila.

35. The PCR noted that the IMC consultant provided useful reports and training. However, no assessment was made regarding the effectiveness of the training and whether capacity of PWD staff had improved. There was also no time to review the consultant's reports or test the recommendations made. The PCR also observed that most of the activities the consultant initiated were carried forward into the subsequent tranches, not within the project as intended.

36. There are no assurances that the state government would provide the necessary financial and other resources for the maintenance of the project roads. The PCR noted that Uttarakhand's financial and budgetary constraints would make it challenging to provide an adequate and dedicated allocation of maintenance funds to ensure sustainability.[19] Given the topography of some of the project roads and weather conditions, the maintenance needs will be substantial. Accordingly, the validation considers the project less than likely sustainable.[20]

III. OTHER PERFORMANCE ASSESSMENTS

A. Preliminary Assessment of Development Impact

37. The PCR rated the socioeconomic impacts of the project satisfactory. However, discussion was focused on the DMF outcome performance indicators and not on the impact indicator. The PCR noted that the head count poverty ratio declined from 32.7% in 2004–2005 to 11.3% in 2011–2012, apparently indicating achievement of the impact target. However, this was not discussed in the PCR main report, the source of the data was not identified and whether this referred to Uttarakhand. Most of the outcome indicators were achieved or exceeded (paras. 21 and 24) and road transport efficiency has improved and generated more economic opportunities.

38. Given that there was a project performance monitoring system (PPMS), the data requirements for the indicators should have been collected and utilized in measuring achievement of project impacts. Based solely on the achievement of project outcomes and the impact–outcome relationship, the validation finds the achievement of project impacts satisfactory.

B. Performance of the Borrower and Executing Agency

39. The PCR rated the overall performance of the borrower and the PWD satisfactory. It noted that relevant government agencies actively participated in project coordination and monitoring. The state government provided the required counterpart funding and established the PMU and PIUs. The PMU coordinated activities, including resettlement, environmental clearances, procurement of civil works contracts, and the engagement of consultants. However, the PMU and PIUs were unfamiliar with ADB's procedures and policies on procurement, financial management, and environmental and social safeguards, as this was the first internationally funded road project in Uttarakhand. Nevertheless, their capacities improved overtime, and project implementation was subsequently satisfactory. The state government was compliant with all but one of the covenants of the loan agreement (para. 15).

40. The actual number of PIUs was less than the six envisioned at appraisal. No reason was given for this shortfall other than four being sufficient. ADB mission reports noted, initially that the six PIUs were being set up, but was reduced to four as the PWD determined that this was sufficient. The validation notes the substantial efforts that the PWD, the PMU, and PIUs put into

[19] Footnote 1, para. 39.
[20] The regional department disagrees with this rating and retains the PCR rating of likely sustainable. Refer to Appendix 1.

the project and the experience gained should improve project execution in the subsequent tranches or projects. Considering all these, the validation assesses the performance of the borrower, the PMU, and PIUs satisfactory.

C. Performance of the Asian Development Bank and Cofinanciers

41. The PCR rated ADB's performance satisfactory. At first, the program was administered by ADB headquarters' staff. It was delegated to the India Resident Mission (INRM) in September 2008. ADB participated in resolving issues during implementation through tripartite project review meetings and 19 regular review missions. ADB assessed implementation issues and provided inputs to expedite implementation. Through the assistance of experts, training and support was provided to PMU and PIU staff, consultants, and contractors, and this built capacity. Document approvals and all claims for payment were processed promptly. At the government's request, ADB extended the loan closing date to facilitate project completion.

42. The various mission reports showed that ADB paid sufficient attention to issues and problems affecting the implementation, and offered guidance and additional assistance whenever necessary. Recognizing the inexperience of the Uttarakhand PWD, the PMU, and PIUs, ADB kept close track of progress and conducted training to enhance staff capacity in project management. The delegation of project administration to the INRM is considered appropriate, since it recognized that closer monitoring and supervision was needed to ensure project completion.

43. Given this generally good performance, the validation assesses ADB performance satisfactory.

IV. OVERALL ASSESSMENT, LESSONS, AND RECOMMENDATIONS

A. Overall Assessment and Ratings

44. The PCR and the validation hold similar assessment and rating of the project on relevance. On effectiveness, the PCR discussion was limited and too descriptive. In some cases, no data was provided to validate the assessment made and seemed to have not utilized the PPMS database.

45. On sustainability, the validation assesses the project to be less than likely sustainable. This is due to the lack of data in the PCR to support its rating of likely sustainable, and the constraints on Uttarakhand's financial capacity to provide road maintenance funds.

46. Overall, the project is considered less than successful given that it is rated relevant, less than effective, efficient, and less than likely sustainable.[21] The project impact, the performance of borrower and executing agency, as well as the performance of ADB were rated satisfactory.

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[21] As footnoted earlier, the regional department disagrees with this validation report's ratings on effectiveness and sustainability. It retains the ratings of relevant, effective, efficient and likely sustainable, and thus implying the project's overall rating of successful. Refer to Appendix 1.

Overall Ratings

Validation Criteria	PCR	IED Review	Reason for Disagreement and/or Comments
Relevance	Relevant	Relevant	
Effectiveness	Effective	Less than effective	Targets which were supposed to have been achieved in 2012 were not met and were postponed to the end of the facility.
Efficiency	Efficient	Efficient	
Sustainability	Likely Sustainable	Less than likely sustainable	Uttarakhand's finances were highly constrained and there was no assurance that the required resources for adequate road maintenance could be provided.
Overall assessment	**Successful**	**Less than successful**	
Preliminary assessment of impact	Satisfactory	Satisfactory	
Borrower and executing agency	Satisfactory	Satisfactory	
Performance of ADB	Satisfactory	Satisfactory	
Quality of PCR		Satisfactory	Para. 51

ADB = Asian Development Bank, IED = Independent Evaluation Department, PCR = project completion report, PIU = project implementation unit.
Source: ADB (IED).

B. Lessons

47. The PCR identified four project-level lessons: (i) overall investment program DMF should be disaggregated into project-level DMFs to effectively measure achievement against project-specific indicators and targets; (ii) need to improve the performance of contractors and consultants through the strengthening of contract provisions on liquidated damages, staff mobilization and deployment of equipment and funds, limitations on the replacement of senior technical staff, and setting the contract implementation based on such factors as weather and geographical location of the project; (iii) strengthening of contract provisions for undertaking post-construction maintenance; and (iv) longer contract period for consulting services and more intensive inputs are required to sensitize the PWD's senior management and state government and facilitate the design and implementation of an institutional development and capacity-building program. The validation concurs with these lessons.

48. **Project level.** This validation identifies two lessons from the project. First, experience and capability of the executing and implementing agencies in programming project activities are important considerations in the project's design. It is important that project implementation activities proceed smoothly even when the executing and implementing agencies have had no experience in implementing foreign-funded road projects. Second, partnering with international counterparts would have helped national consultants improve capacity to eventually assume senior staff positions. They would have learned a lot from the technical know-how and experiences of the international experts.

C. Recommendations for Follow-Up

49. The INRM should follow-up with the PWD on the operations of the PPMS to determine whether the required data on impact and outcome indicators are being collected. Reviewing the

PCR, it seems that no data was being collected on these indicators, other than that provided for project monitoring. This would include actual PWD road maintenance expenditures on project roads and the quality of the roads being maintained.

V. OTHER CONSIDERATIONS AND FOLLOW-UP

A. Monitoring and Reporting

50. The PCR was not clear on whether the PPMS was being implemented. While the management information and project management system were operational, this pertained only to project monitoring and excluded benefit monitoring and evaluation. The INRM should determine whether the complete PPMS is operational, and if so, reports on the benefit monitoring and evaluation of the individual road projects should be provided to INRM for review.

B. Comments on Project Completion Report Quality

51. The validation finds the PCR quality to be satisfactory, although it also noted PCR's few shortcomings. The discussions on effectiveness were too descriptive and, in some cases, lacked sufficient data or statistics to support the assessments made. Discussion on efficiency had no explanation on how the growth in 2016 vehicular traffic resulted in the higher EIRR, and no table was given in the appendix to show the recalculation.

C. Data Sources for Validation

52. The data sources for the validation included the report and recommendation of the President, the PCR, back-to-office reports, IED's project safeguard assessment, ADB's country strategy and program 2003–2006 for India, and the country partnership strategy for 2018–2022.

D. Recommendation for Independent Evaluation Department Follow-Up

53. The PCR did not recommend whether a project performance evaluation report should be prepared. The validation recommends that such report be prepared 2 years after the completion of all tranches of the program. This would allow assessments to be made on the outcome and impact of the whole program.

APPENDIX 1: LINKED DOCUMENTS

Project Validation Report India: Uttarakhand State-Road Investment Program (Project 1)

1. SARD Comments on Final PVR

   https://www.adb.org/sites/default/files/linked-documents/SARD-Comments-L2308.pdf

2. IED Clarifications to SARD Comments

   https://www.adb.org/sites/default/files/linked-documents/IED-Clarifications-to-SARD-Comments-L2308.pdf