

Validation Report
October 2021

India: North Eastern Region Capital Cities Development Investment Program (Project 1)

Reference Number: PVR-782
Project Number: 35290-023
Loan Number: 2528



Raising development impact through evaluation

ABBREVIATIONS

ADB	–	Asian Development Bank
APFS	–	audited project financial statement
DMF	–	design and monitoring framework
DPR	–	detailed project report
EIRR	–	economic internal rate of return
FAP	–	financial action plan
FIRR	–	financial internal rate of return
GAP	–	gender action plan
IPCC	–	investment program coordination cell
MFF	–	multitranche financing facility
MOUD	–	Ministry of Urban Development
MTR	–	midterm review
NER	–	North Eastern Region
NERCCDIP	–	North Eastern Region Capital Cities Development Investment Program
NSEAs	–	national- and state-level executing agencies
O&M	–	operation and maintenance
PCR	–	project completion report
RRP	–	report and recommendation of the President
SEAs	–	state executing agencies
SIPMIU	–	state investment program management and implementation unit
SWM	–	solid waste management
ULB	–	urban local body

NOTE

In this report, “\$” refers to United States dollars and “₹” refers to Indian rupee.

OIC-Director General	Sona Shrestha, Independent Evaluation Department
Director	Nathan Subramaniam, Sector and Project Division (IESP)
Team Leader	Srinivasan Palte Venkata, Senior Evaluation Specialist, IESP

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. The final ratings are the ratings of IED and may or may not coincide with those originally proposed by the consultants engaged for 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 number	35290-023	PCR circulation date	9 Dec 2020	
Loan number	2528	PCR validation date	Oct 2021	
Project name	North Eastern Region Capital Cities Development Investment Program (Project 1)			
Sector and subsector	Water and other urban infrastructure and services	Urban policy, institutional and capacity development Urban solid waste management Urban water supply		
Strategic agenda	Environmentally sustainable growth Inclusive economic growth			
Safeguard categories	Environment		B	
	Involuntary resettlement		B	
	Indigenous peoples		C	
Country	India		Approved (\$ million)	Actual (\$ million)
ADB financing (\$ million)	ADF: 0.00	Total project costs	42.80	34.08
	OCR: 30.00	Loan	30.00	24.96
		Borrower	12.80	9.12
		Beneficiaries	0.00	0.00
		Others	0.00	0.00
Cofinancier	–	Total cofinancing	0.00	0.00
Approval date	1 Jul 2009	Effectiveness date	2 Nov 2009	19 Nov 2009
Signing date	4 Aug 2009	Loan closing date Financial closing date	30 Apr 2016	22 Jun 2019 23 Oct 2019
Project officers	G. Cezayirli T. Lizon S. Muramoto N. Pokhrel R. Slangen P. Srivastava	Location ADB headquarters ADB headquarters ADB headquarters ADB headquarters India Resident Mission (outpost) India Resident Mission	From May 2006 Oct 2007 Apr 2010 Mar 2013 Apr 2015 Sep 2016	To Oct 2007 Feb 2013 Jun 2012 Apr 2015 Sep 2016 Nov 2019
IED review Director Team leader	N. Subramaniam, IESP S. Palle Venkata, IESP*			

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

*Team members: E. Gozali (quality reviewer), F. De Guzman (Senior Evaluation Officer), S. King and C. Mason (consultants).

I. PROJECT DESCRIPTION

A. Rationale

1. India's North Eastern Region (NER) comprises eight states¹ and the Asian Development Bank's (ADB) North Eastern Region Capital Cities Development Investment Program

¹ NER constitutes the states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura.

(NERCCDIP), an urban infrastructure and service delivery improvement project, focused on the five capital cities of Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura.²

2. Despite having immense natural resources, with NER attributing 34% of India's water resources and almost 40% of the country's hydropower potential, it was among the most backward regions. Aside from being geographically isolated, NER had low per-capita income, insufficient private investment, inadequate infrastructure facilities, and inadequate resource utilization.³ Only 2% of its borders were connected to the rest of India.⁴

3. All NER states ranked low in infrastructure development due to lack of basic services (water, wastewater, among other things) in urban areas; thus, constraining economic growth and contributing to poverty. As identified in the report and recommendation of the President (RRP), with NER's difficult access and remoteness, the capital cities could have played highly strategic roles as commercial and business hubs and as administrative centers.⁵ The NERCCDIP aimed to successfully fulfil the region's role, by focusing on urban areas that needed improvements in infrastructure and service delivery.

4. The program was specifically designed to improve the urban environment and promote reforms for sustainable, efficient, and responsive urban service delivery in the five focal capital cities. The program's physical investments were to improve water supply, sanitation and sewerage, and solid waste management (SWM) infrastructure. Alongside were reforms on urban governance, finance, service delivery, and capacity building of concerned institutions.

5. The program was to utilize the multitranche financing facility (MFF) modality to be delivered in three tranches or projects. This offered flexibility in the scope of subsequent projects that would be part of the program.⁶ Project 1, the subject of this validation, comprised two parts. Part A focused on improving urban infrastructure and services and involved investment in water supply and solid waste physical assets, while part B was on capacity building and investment program management.

B. Expected Impact, Outcome, and Outputs

6. The design and monitoring framework (DMF) for project 1 was clarified during the midterm review (MTR) in June 2012.⁷ The project's expected impact was sustainable urban services in the five program cities, while the outcome was improved access to selected urban services in these cities. The main outputs were constructed and rehabilitated water supply infrastructure, constructed and installed SWM infrastructure, and strengthened local government capacity for better financial management and sustainable service delivery.

² Agartala (Tripura) has the largest population of the five capital cities with around 600,000 inhabitants followed by Shillong (Meghalaya) with approximately 350,000; Aizawl (Mizoram) 300,000; and Kohima (Nagaland) and Gangtok (Sikkim) each with 100,000. Arunachal Pradesh, Assam, and Manipur did not form part of NERCCDIP. Government of India, Registrar General and Census Commissioner. 2014. *Census of India 2011: Report on Post Enumeration Survey*. New Delhi. <https://www.censusindia.gov.in/2011census/pes/Pesreport.pdf>.

³ United Nations in India. North-East. <https://in.one.un.org/un-priority-areas-in-india/north-east/>

⁴ ADB (South Asia Department). 2009. Loan Appraisal Mission, Aide-Mémoire. 13–16 January (internal).

⁵ ADB. 2009. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranchise Financing Facility to India for the North Eastern Region Capital Cities Development Investment Program*. Manila.

⁶ ADB. 2020. *Completion Report: North Eastern Region Capital Cities Development Investment Program (Project 1) in India*. Manila.

⁷ ADB (South Asia Department). 2012 Midterm Review Mission to India: North Eastern Region Capital Cities Development Investment Program (Project 1). Aide Memoire. 12 June (internal).

7. The project completion report (PCR) noted that the revised DMF for project 1 contained multiple errors. Among them were (i) replicating the MFF outcome targets as project 1 impact targets without rightsizing for the project's interventions that covered fewer number of urban local bodies (ULB) and sectors; (ii) inconsistent numerical targets for the project between its outcome and impact; (iii) including sewerage treatment and solid waste collection interventions as impact indicators, even though these interventions were not included under the project; (iv) stating the beneficiary population of Shillong as 719,000, while it was only 543,233; and (v) categorizing the project as a gender mainstreaming intervention, although its DMF did not include gender-specific indicators.⁸

C. Provision of Inputs

8. ADB approved the project 1 in July 2009, and it became effective 4 months later. The project's original closing date was in April 2016, and it was extended twice in May 2016 and July 2017. It finally closed in October 2019, more than 3 years after the target date. The PCR stated that extensions were granted to (i) complete re-tendered Shillong's SWM works, (ii) finance operation and maintenance (O&M) expenditure of Kohima's SWM works, and (iii) refurbish and reconstruct Kohima's State Investment Program Management and Implementation Unit's (SIPMIU) offices and records that were damaged during a social unrest in the state.

9. At appraisal, the estimated cost for project 1 was \$42.80 million, comprising \$30.0 million ADB loan and a \$12.80 million government contribution. A partial loan of \$4.50 million was canceled in September 2013 to reduce the loan amount to \$25.50 million. Loan funds were reallocated in 2012 to align with the updated project cost as finalized during an MTR mission (footnote 7). Loan funds were reallocated again in 2017 to adjust against increased costs due to the extended implementation period and design changes in Shillong's SWM works. At completion, the actual project cost was \$8.74 million lower at \$34.08 million, with the \$24.96 million ADB loan and \$9.12 million from the government. The undisbursed balance of \$0.58 million was canceled in 2019. The project had significant disbursement delays. There were procurement delays arising from revisions in detailed project reports (DPRs), delays in state governments' processing of claims, and the contractors' poor performance in four subprojects from October 2012 to June 2013 that contributed to the project's problem on rating for this period.

10. An underspending of \$8.74 million occurred due to lower-than-expected water supply civil works in Agartala, Aizawl, and Gangtok. This offset the \$5.4 million that was overspent on the SWM contracts in Shillong (\$0.7 million) and Kohima (\$4.7 million), and the impact of lower interest and exchange rates on financing charges and administration costs.

11. About \$2 million was underspent on (i) design, supervision, and management consultants (DSMC); (ii) financial and institutional development consultants; and (iii) project implementation and administration consultants, mainly in Agartala. At appraisal, the RRP estimated that the entire project was to require a total of 1,985 person-months of national consulting services in project management and in design and construction supervision, and 549 person-months of national expertise in institutional development.⁹ The specific number was to be about 5–6 consultants at the central investment program coordination cell (IPCC) and 10–

⁸ Footnote 6, para. 7.

⁹ In addition, support staff would be hired for project management, design, and construction supervision (1,386 person-months), and for services in support of the institutional development consultants (640 person-months).

12 consultants in each of the five state design, construction supervision, and management consultants at any one time. Consulting services were expected to decrease gradually as the state executing agencies (SEAs) gain more capacity and expertise during implementation. The PCR did not report the actual number of consultants and person-months utilized at project completion.

12. An advisory technical assistance of \$1.52 million, financed by the Cooperation Fund for the Water Sector and ADB's Technical Assistance Special Fund, was provided to strengthen managerial and institutional capabilities of national- and state-level executing agencies (NSEAs). It helped the states prepare DPRs and bid documents for subprojects, manage the project, and implement reforms.¹⁰

13. Project 1 was classified B for environment and involuntary resettlement, and C for indigenous peoples. However, as no land acquisition or involuntary resettlement was involved in implementing the subprojects in Agartala, Aizawl, Kohima, and Shillong, these subprojects were categorized C for involuntary resettlement.¹¹ A detailed gender action plan (GAP) was included in the MFF's RRP that had specific actions and targets for each city in relation to both parts A and B of project 1. A specific GAP for project 1 was later developed in 2017.

D. Implementation Arrangements

14. Project implementation arrangements were carried out as planned. The national executing agency was the Ministry of Urban Development (MOUD). SEAs constitute the Urban Development Department for Nagaland and Tripura, the Urban Development and Poverty Alleviation Department for Mizoram, the Urban Affairs Department for Meghalaya, and the Urban Development and Housing Department for Sikkim. The IPCC established in MOUD was responsible for NERCCDIP's overall management in the five cities. A consolidated SIPMIU was established in each of the five SEAs. The SIPMIU, headed by a state investment program director, was responsible for managing and implementing the program in the state.

15. The PCR indicated that out of the 63 loan covenants, 60 were fully complied with, while 3 were partly complied with. Project 1 complied with the urban reforms program, except for strengthening property tax yield in Shillong. Timely submission of audited project financial statements (APFS) was partially complied because a significant number of these have remained outstanding, as of March 2021. SIPMIUs' delayed submission and consolidation of APFSs throughout the project implementation contributed to the project's "actual problem" rating during the period October 2012 to June 2013.¹²

II. EVALUATION OF PERFORMANCE AND RATINGS

A. Relevance of Design and Formulation

16. The PCR rated project 1 relevant because it was aligned with government development plans and ADB's country and sector strategies. It was aligned with and supported urbanization

¹⁰ ADB. 2006. *Technical Assistance to India for the Project Implementation and Urban Management Improvement in the North Eastern Region (Phase I)*. Manila.

¹¹ Back-to-office reports and aide-mémoires indicated that some resettlement was necessary (e.g., 25 individuals at the Shillong landfill site, 14 households for water supply, and 5 for solid waste in Aizawl).

¹² "Actual problem" is defined as projects that have unsatisfactory or partly satisfactory performance ratings in development objectives or implementation progress. ADB 2018. [Project Performance Report](#). *Project Administration Instructions*. PAI 6.05 Revised in June 2018. Manila.

policies in India's Eleventh Five Year Plan (2007–2012) and the Twelfth Five Year Plan (2012–2017),¹³ particularly in relation to water and sanitation. It was also aligned with ADB's country partnership strategies covering 2009 to 2013 that emphasized infrastructure development in transport, energy, urban, agriculture, and water resources management, particularly in poorer states.¹⁴

17. This validation assesses the project relevant, as its expected and actual outcome targets were consistent with the country's development priorities and ADB's country and sector strategies. The RRP stated that the NERCCDIP was designed as an MFF primarily because of the broad and complex institutional and financial reform agenda associated with the government's road map that required a long-term partnership between ADB, India and its NER states, and performance-based approaches. The program would enable long-term engagement to build the capacity of ULBs and provide proper incentives for performance improvements, with individual loans linked to reform targets stretched over a realistic time frame. The need to closely monitor and assess the implementation performance of MFF tranches and/or projects was seen as a concern at the project design stage. Multiple procurement-related delays beset the project partly due to the relatively complex implementation of the MFF modality. The modality required a vision of the longer-term program and detailed attention to project 1 design. Therefore, a simpler financing approach would have been preferable even though, in theory, the longer-term engagement that the MFF modality facilitates was attractive. There was also a concern regarding lack of appropriate indicators employed in the DMF to effectively assess whether the target project outcome was achieved.

B. Effectiveness in Achieving Project Outcome and Outputs

18. The PCR rated the project effective indicating that two of the three outcome indicators were fully achieved, and one was 80% achieved, while 20 out of 21 output indicators were met, with one partly achieved. However, this validation notes that it is not significant to use population coverage as a target indicator for the outcome on rehabilitation of bulk water infrastructure, solid waste treatment, and strengthened institutional capacity because these interventions are expected to benefit the entire population. There has been no effective tracking of more meaningful outcome indicators such as number of persons and/or households benefiting from improved water supply and SWM services.

19. Based on the DMF, all output targets relating to the construction and rehabilitation of the water supply and SWM infrastructure were achieved. All, except one of the output targets associated with the capacity building and better financial management, were met. This validation, however, notes that the reported achievement in revising the formula for computing property values in Agartala, a process that the PCR stated is still underway in Shillong, did not necessarily entail the accomplishment of the output target of strengthening the property tax yield.

20. The PCR rated safeguard compliance reporting and monitoring effective. The project featured several activities with environmental and social impacts, such as the establishment of a new reservoir, installation of water distribution infrastructure, and construction of sanitary landfills. The project design also featured multiple rehabilitation activities and limited requirements to acquire land and resettle households. Multiple delays in carrying out such

¹³ Government of India, Planning Commission. 2008. *Eleventh Five Year Plan 2007–2012, Volume I, Inclusive Growth*. New Delhi; and Government of India, Planning Commission. 2013. *Twelfth Five Year Plan (2012–2017)—Faster, More Inclusive and Sustainable Growth, Volume I*. New Delhi.

¹⁴ ADB. 2009. *Country Partnership Strategy: India, 2009–2012*. Manila; and ADB. 2013. *Country Partnership Strategy: India, 2013–2017*. Manila.

activities were reported in relation to obtaining land clearance permission for landfills. A detailed GAP was included in the original design documents. Multiple delays were also reported in back-to-office reports and aide-mémoires with respect to GAP compliance. As the bulk of the project's outcome and output indicators as well as its safeguard and gender mainstreaming activities were achieved by 2019 and not 2016 as expected in the DMF, this validation assesses the project effective.

C. Efficiency of Resource Use

21. The PCR rated the project efficient based on the economic internal rates of return (EIRR) calculated at completion for all the subprojects and for the whole of project 1 that were higher than the 12% threshold. The calculated EIRRs for the four water supply subprojects and two SWM subprojects ranged from 14.32% to 19.45%.¹⁵ The consolidated EIRR for all interventions under project 1 was 16.68%. Sensitivity analysis in the form of a 20% benefit reduction left the combined EIRR marginally above the 12% threshold at 12.09%. However, for the water supply projects in Aizawl and Gangtok, the EIRRs fall below the 12% threshold. The EIRR was most sensitive to delays in realization of benefits, although the EIRR remained above 12% in all sensitivity analyses except for Kohima's SWM.

22. The project's economic viability hinged on the assumption that there were substantial health benefits due to treatment of solid waste in landfill facilities and the awareness campaigns influencing behavior change regarding sanitary waste disposal. The estimated health benefits in SWM were due to fewer people suffering from sanitation-related illnesses, such as diarrhea, vector-borne diseases, and respiratory infections. Similar to SWM, substantial part of the economic benefits in the case of water supply was also from health gains in the form of reduced burden from water-borne diseases. The PCR did not present data on water quality but presumed that water quality was better with the project, compared to without project case where water used was untreated and of lesser quality.

23. There were issues concerning the project's process efficiency. The slow fund disbursement over the project period and the lack of action on the repeated procurement and contract management issues raised questions on the viability of utilizing MFF in such a challenging environment. There was a substantial implementation delay (mid-2019 vs. end-2015 original target project completion) and a major cost overrun in relation to the delivery of the SWM landfill in Kohima (\$8.3 million actual vs. \$3.5 million estimate).

24. Notwithstanding cost overruns and implementation delays evident in some subprojects, this validation assesses the project efficient, based on the project's calculated EIRRs that exceeded the 12% threshold due to the large health benefits assumed from improved water supply and SWM.

D. Preliminary Assessment of Sustainability

25. The PCR rated project 1 likely sustainable as it analyzed the operating ratios—operating expenses as a percentage of operating revenue—of the ULBs and state-level agencies. Operating ratios will ascertain whether operating revenue may be sufficient to meet O&M costs associated with urban service delivery along with assurances that budgetary allocations to municipal authorities are secured due to constitutionally enshrined entitlement.

¹⁵ The EIRRs for the four water supply projects were 19.45% in Agartala, 14.36% in Aizawl, 14.32% in Gangtok, and 17.89% in Kohima, while the EIRRs for the two SWM subprojects were 17.33% in Kohima and 17.78% in Shillong.

26. The PCR also indicated that the operating ratios for the five state governments were all less than 1. This showed that NER states had the financial capacity to meet the operating expenses of project assets. These state governments, through regular budget allocation from the Government of India, met the significantly large gaps between revenue receipts and the operating expenses of their public health engineering and public works departments directly responsible for water and SWM asset management.

27. The PCR also stated that as the project or the tariff policy was not designed for capital cost recovery of water supply and SWM, the standard approach of financial internal rate of return (FIRR) analysis that was adopted at appraisal was not considered appropriate to assess project sustainability at completion.¹⁶

28. This validation notes that sustainability depends on whether sufficient cash will be available to cover the operating expenses associated with the capital investments undertaken under the program. However, the operating ratios for three of the five state governments that were close to or exceeded 1 in some years raised serious doubt whether sufficient O&M funding would be made available to the departments responsible for water and SWM asset management.¹⁷ The PCR noted that the state governments' operating ratios for the past 5 years were on average less than 1. However, this was not an assurance that sufficient O&M funds would be made available to public works and public health engineering departments.

29. Concerns over the asset owners' ability to have enough operating income to meet operating expenses were identified at project design stage. This was a fundamental reason why one element of the capacity building and investment program management part of project 1 focused on tariff reform to help ensure a sustainable user charge structure. This NERCCDIP's key objective cannot be separated from the sustainability assessment. There were indications that tariff reform initiatives have had limited effect with tariffs remaining below cost recovery levels and no tariff increases were implemented.¹⁸ Given that the FIRRs conducted at project design stage relied on the implementation of financial action plans (FAPs), which included a gradual increase in user charges and improvements in collection efficiency, these would indicate a lack of sustainability had FIRRs been produced in target cities at project completion.¹⁹ This validation, therefore, assesses the project less than likely sustainable.

III. OTHER PERFORMANCE ASSESSMENTS

A. Preliminary Assessment of Development Impact

30. The PCR rated the development impact of project 1 as satisfactory. The investments and operational improvements implemented under the urban infrastructure and services part of the project provided the target cities with a cleaner and healthier urban environment and reduced the financial and economic burden of diseases on the poor due to loss of economic opportunities and productive workdays. Similarly, the PCR pointed to the positive impacts achieved through (i) generated employment opportunities associated with these investments, (ii) reduced carbon

¹⁶ ADB. 2009. *Financial Due Diligence, A Methodology Note*. Manila. Nonrevenue-generating projects are not subject to FIRR and WACC assessment. Instead, reliance is placed on financial sustainability.

¹⁷ Specifically, between 2016 and 2019 none of the state governments had an operating ratio below 0.8. Most were in the 0.91–0.99 range and in two cases exceeded 1.0 (Tripura in 2017–2018 and Meghalaya in 2018–2019).

¹⁸ The PCR presented tariff data for the focal cities; however, it did not indicate the degree of cost-reflectiveness. An internet search conducted in April 2021 did not provide any evidence as to tariff increases, although it was revealed that water tariffs in Kohima had not changed since 2010.

¹⁹ Footnote 5, Supplementary Appendix M.

emissions arising from waste treatment, (iii) awareness campaigns implemented, (iv) increased women's economic empowerment, (v) enhanced gender equality in decision making and leadership, and (vi) strengthened institutional frameworks.

31. Given that the bulk of water supply investments were targeted at production rather than distribution, it was debatable that the four target cities combined 1.06 million population fully benefited.²⁰ Similarly, the lack of any investment in waste collection and transportation somewhat mitigated the claim that 411,217 people in the two project cities benefited from the investment made in SWM disposal and awareness raising. Further, the major delays experienced in delivering some project components would have undermined project's development impact. Despite these reservations, this validation assesses the project's development impact satisfactory.

B. Performance of the Borrower and Executing Agency

32. The PCR rated the performance of the borrower, represented by the government's Department of Economic Affairs, and NSEAs satisfactory. It stated that the borrower provided timely guidance and decisions to the NSEAs and held regular tripartite review meetings with ADB and the NSEAs to help identify bottlenecks, resolve issues, and monitor progress. However, the PCR rated the performance of the NSEAs in financial management less than satisfactory.

33. Based on a review of the back-to-office reports and aide-mémoire, this validation notes certain issues regarding the MOUD's performance as the national executing agency, and that of the SIPMIUs. The NSEAs underperformed in a wide range of areas due to (i) lack of clarity on their roles; (ii) changing and overlapping responsibilities; (iii) insufficient capacity and resources particularly within the IPCC and SIPMIUs, especially in relation to contract management and procurement skills; and (iv) severe budgeting problems that caused major delays in claims processing and fund releases. All these factors delayed implementation of all facets of project 1. However, considering that detailed action plans to address project management, procurement, and disbursement processes ultimately led to improvements in these areas, this validation assesses the performance of the borrower and NSEAs satisfactory.

C. Performance of the Asian Development Bank and Cofinanciers

34. The PCR rated the performance of ADB satisfactory. It stated that ADB undertook regular review missions, disbursement review missions, MTR missions, and a consultation mission to assess progress and provide advice on resolving outstanding issues. The PCR also acknowledged that ADB could have extended additional support to implementing agencies to address the identified audit shortcomings. It noted that, although audit shortcomings were identified and commented upon, specific steps were not taken over the years to resolve these issues.

35. ADB could have better dealt with identified problems by taking concrete action in a timely fashion. For example, as the project was having actual problem in January 2013, it took 6 months later to prepare the first detailed and realistic action plan. Similarly, it took another

²⁰ The RRP noted that in Agartala, particularly in older parts of town, distribution pipes were blocked by iron deposits, and supplies were restricted. In Aizawl and Kohima, the distribution system pipelines were old and inadequate; water may be available for only a few hours a week during the dry season. Gangtok and Shillong improved their water production capacity, however, neither city carried out the distribution system improvements needed to serve the population better.

6 months for the NSEAs to receive support on contract supervision and procurement management. It was in November 2014 when ADB recommended that contract administration be handed over to the states from MOUD to help resolve the contract management problem. However, based on the fact that ADB eventually took the necessary actions to address and resolve the project management issues, this validation assesses ADB's performance satisfactory.

IV. OVERALL ASSESSMENT, LESSONS, AND RECOMMENDATIONS

A. Overall Assessment and Ratings

36. The PCR rated the project successful. Overall, this validation assesses the project successful. Under the core criteria, it evaluates the project relevant based on its consistency with the governments' development plans and ADB's sector strategies and assesses the project effective considering the achievement of planned outputs and outcome. This validation assesses the project efficient given that the EIRR was above the 12% threshold due to the large health benefits assumed in relation to both SWM and water supply investment. Considering the concern pertaining to insufficient funds for routine O&M expenses for both water supply and SWM investment, it assesses the project less than likely sustainable.

Overall Ratings

Validation criteria	PCR	IED review	Reason for disagreement and/or comments
Relevance	Relevant	Relevant	
Effectiveness	Effective	Effective	
Efficiency	Efficient	Efficient	
Sustainability	Likely sustainable	Less than likely sustainable	Not enough evidence to suggest sufficient funds will be available to meet O&M cost and failing to implement FAP to help achieve cost recovery.
Overall Assessment	Successful	Successful	
Preliminary assessment of impact	Satisfactory	Satisfactory	
Borrower and executing agency	Satisfactory	Satisfactory	
Performance of ADB	Satisfactory	Satisfactory	
Quality of PCR		Satisfactory	

ADB = Asian Development Bank, FAP = financial action plan, IED = Independent Evaluation Department, O&M = operation and maintenance, PCR = project completion report.

Source: ADB (IED).

B. Lessons

37. The PCR presented several key lessons and recommendations. First, the experience gained in implementing project 1 can be applied to future tranches under the MFF program. Second, multiple executing agencies with overlapping mandates and associated complex fund flow mechanisms can delay effective project implementation. Third, avoiding resettlement and land acquisition in project design helps avert delays.

38. This validation offers additional lessons. **Project level.** Capacity building has to be strongly linked to investment activities. If this had occurred in project 1, then this would likely

have resulted in more training being delivered to enhance procurement and contract management skills and to produce timely and accurate DPRs and financial reports.

39. **Results framework and methodology level lesson.** Clear and measurable links between desired project outcome and the chosen target indicators are needed to demonstrate achievement. In project 1, the goal of delivering improved access to sustainable urban services was not complemented by appropriate target indicators. Under the urban infrastructure and services part of the project, there was no measurement of the continuity and quality of urban services received following the project investment. In the project's capacity building and investment program management part, there were also no target indicators specified to demonstrate how financial, regulation, and operational reforms resulted in additional income from property taxes, better service delivery, improved behavior in relation to sanitation or waste segregation and reduced nonrevenue water.

C. Recommendations for Follow-Up

40. This validation supports project-specific and general recommendations for ADB that the PCR offered: (i) design project components considering the capacity of executing and implementing agencies; (ii) set numerical targets for DMF performance indicators to maintain consistency between impact and outcome and enable effective results monitoring, and (iii) provide continuous support and follow-up, and if necessary, include a financial management specialist as part of the team to monitor and support implementing agencies' financial management performance.

V. OTHER CONSIDERATIONS AND FOLLOW-UP

A. Monitoring and Reporting

41. Monitoring and reporting on the part of the NSEAs of project 1 was mixed. Progress reports were sometimes delivered on time, while the APFSs were not. ADB's monitoring and reporting throughout project 1 were good, although these were undermined by a lack of timely action to address issues in procurement and contract management particularly during the first 3.5 years of implementation.

42. In terms of future monitoring, the PCR identified the need to prepare the investment program performance management systems' end-line survey and follow-up action regarding submission of the remaining 12 APFSs. This validation suggests that to fully understand the impact of project 1, it will be beneficial to undertake a survey in the target cities with respect to (i) water service quality, (ii) household and municipal behavior on SWM segregation and disposal, (iii) property tax yields, and (iv) progress in implementing FAPs.

B. Comments on Project Completion Report Quality

43. This validation assesses the PCR quality satisfactory. However, the PCR could have better highlighted the concerns related to the project's sustainability and better justified the assumptions made in estimating project benefits.

C. Data Sources for Validation

44. Data sources for this validation included (i) the PCR; (ii) the RRP and its supporting appendixes and minutes from the RRP's review meeting; (iii) back-to-office reports and aide-

mémoire relating to loan review, inception, and MTR missions; (iv) India's Eleventh Five Year Plan, 2007–2012 and Twelfth Five Year Plan, 2012–2017; and (v) ADB–India country partnership strategies for 2009–2012 and 2013–2017.

D. Recommendation for Independent Evaluation Department Follow-Up

45. This validation supports the PCR recommendation for the project performance evaluation report to be prepared in 2022, by which time the subprojects will have been operational for more than 3 years.