Validation Report
December 2021

India: Jammu and Kashmir Urban Sector Development Investment Program (Project 2)

Reference Number: PVR-822
Project Number: 41116-033
Loan Number: 2925

Independent Evaluation ADB

Raising development impact through evaluation

ABBREVIATIONS

ADB	–	Asian Development Bank
APFS	–	audited project financial statements
CBIS	–	capacity building and institutional support
CPS	–	Country Partnership Strategy
DSC	–	design and supervision consultant
DMF	–	design and monitoring framework
EIRR	–	economic internal rate of return
ERA	–	Economic Reconstruction Agency
E&S	–	environmental and social
FYP	–	Five-Year Plan
GFCD	–	gender-focused community development
HUDD	–	Housing and Urban Development Department
IEE	–	initial environmental examination
MFF	–	multitranche financing facility
NRW	–	nonrevenue water
O&M	–	operation and maintenance
PCR	–	project completion report
PHED	–	Public Health Engineering Department
PIU	–	project implementation unit
PMC	–	program management consultant
PMU	–	project management unit
STP	–	sewage treatment plant
SWM	–	solid waste management
TA	–	technical assistance
ULB	–	urban local body

NOTE

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

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PROJECT BASIC DATA

Project number	41116-033	**PCR circulation date**	29 Jun 2021	
Loan number	2925	**PCR validation date**	Dec 2021	
Project name	**Jammu and Kashmir Urban Sector Development Investment Program (Project 2)**			
Sector and subsector	Water and other urban infrastructure and services	Urban policy, institutional and capacity development Urban sewerage Urban solid waste management Urban water supply		
	Transport	Urban roads and traffic management		
Strategic agenda	Environmentally sustainable growth			
Safeguard categories	Environment		B	
	Involuntary resettlement		A	
	Indigenous peoples		C	
Country	India		**Approved** ($ million)	**Actual** ($ million)
ADB financing ($ million)	**ADF:** 00.00	**Total project costs**	181.10	150.98
	OCR: 110.00	**Loan**	110.00	78.30
		Borrower	71.10	72.68
		Beneficiaries	0.00	0.00
		Others	0.00	0.00
Cofinancier	–	**Total cofinancing**	0.00	0.00
Approval date	26 October 2012	**Effectiveness date**	14 Aug 2013	19 Aug 2013
Signing date	16 May 2013	**Loan closing date** **Financial closing date**	31 Mar 2017 –	30 May 2017 8 Feb 2018
Project officers [a]		**Location**	**From**	**To**
	A. Kaneko	ADB headquarters	Jan 2011	Dec 2013
Alternate project officers	R. Slagen	ADB headquarters	Feb 2009	Feb 2018
	K. Tamaki	ADB headquarters	Jan 2011	Mar 2017
	S. Dasgupta	India Resident Mission	Feb 2013	Dec 2013
	S. Dasgupta	India Resident Mission	Apr 2017	Sep 2017
IED review				
Director	N. Subramaniam, IESP			
Team leader	J. Jovellanos, IESP [b]			

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.

[a] Data provided by the PCR team. Period of assignment of officers may start earlier than the approval date due to the preceding loan on project 1.

[b] Team members: H. Hettige (quality reviewer), F. De Guzman (Senior Evaluation Officer), W. Zhou and G. Morgan (consultants).

I. PROJECT DESCRIPTION

A. Rationale

1. The government of state of Jammu and Kashmir (the state government)[1] aimed to promote economic growth through better service, public health, and environmental conditions by investing in urban infrastructure and improving the management capabilities of its line agencies and towns. A sector road map was developed to address the investment backlog and the need

[1] The project was completed prior to the change in the status of the state in 2019. As such, this report refers to the state as it was before the said change.

for management reforms and capacity building. A framework financing agreement for the program was signed by the Government of India and the Asian Development Bank (ADB) in April 2007. ADB then approved a multitranche financing facility (MFF) of $300 million in May 2007, for financing 61% of the MFF program ($485 million).[2] The MFF program was built on the preceding investment (Loan 2151-IND) on multisector infrastructure rehabilitation.[3] It was designed to expand and upgrade the services in the major urban areas of the state. The program aimed to enhance public access to water supply, sanitation, drainage, and road facilities to potentially benefit over 2.4 million people living in the two main towns of Srinagar and Jammu (i.e., target towns) and other selected towns. It also aimed to modernize and streamline the planning, operation and maintenance, and administrative functions of the responsible departments of the target towns.[4]

2. Project 1 was approved along with the MFF program for $42.2 million.[5] Project 2, the subject of this validation, sought to improve municipal infrastructure for water supply, drainage, and urban transport. It also included institutional reform components, which aimed to advance sector reform and mainstream capacity building.

B. Expected Impacts, Outcomes, and Outputs

3. As stated in design and monitoring framework (DMF) of the periodic financing report[6] of project 2, its expected impact was improved living environment in the target towns.[7] Its intended outcome was improved urban services in the target towns. Project 2's planned outputs underpinning its impact and outcome had five components. The first three components were on improving infrastructure for water supply, urban transport, and drainage. The other two outputs pertained to strengthening the institutional capacity of Economic Reconstruction Agency (ERA) and urban local bodies (ULBs) and operationalization of project management system.

C. Provision of Inputs

4. Project 2 was approved in October 2012. The loan agreement was signed in May 2013 and became effective three months later. The project closed in May 2017, two months later than the expected closing date. The loan closing date was extended to cover implementation delays caused by various factors (para. 8). The loan financially closed in February 2018.

5. At appraisal, the total cost of project 2 was $181.1 million. ADB loan comprised 61% and the rest was from counterpart financing. The actual total project cost was 16.6% less than the appraised amount, of which 52% was from the ADB and the balance was from the Indian government. The decrease in ADB loan by $31.7 million was due to a cancellation ($15.0 million) due to depreciation of Indian rupee against US dollar, lower disbursements due to unfinished works of the transport subproject at loan closing, and non-required contingency disbursements.

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[2] ADB. 2007. *Report and Recommendation of the President to the Board of Directors for the Proposed Multitranche Financing Facility to India for the Jammu and Kashmir Urban Sector Development Investment Program*. Manila.

[3] ADB. 2004. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to India for the Multisector Project for Infrastructure Rehabilitation in Jammu and Kashmir*. Manila (Loan 2151-IND).

[4] ADB. 2019. *ADB's Multitranche Financing Facility, 2005–2018: Performance and Results Delivered*. Manila.

[5] ADB. 2021. *Completion Report: Jammu and Kashmir Urban Sector Development Investment Program (Project 1) in India.* Manila.

[6] ADB. 2012. *Periodic Financing Request: Jammu and Kashmir Urban Sector Development Investment Program (Project 2).* Manila.

[7] ADB. 2021. *Completion Report: Jammu and Kashmir Urban Sector Development Investment Program (Project 2) in India.* Manila.

6. Project 2 engaged the same consultants as in project 1 using quality- and cost-based selection procedure. These included a project management consultant (PMC) and two design and supervision consultants (DSCs). A capacity building and institutional support (CBIS) consultant, a nonrevenue water (NRW) consultant, and a gender-focused community development (GCDS) consultant were also engaged under project 2.

7. Project 2 procured a total of 33 civil works contracts. The packages for two flyovers and drainage rehabilitation were procured through international competitive bidding. The remaining packages were procured through national competitive bidding. During implementation, the performance of the contractors for water supply, drainage, and flyover was unsatisfactory, resulting in delayed works completion for project 2. The unfinished works were completed using state government funds in 2018 (for drainage), 2019 (for flyover) and 2020 (for water supply).

8. Project 2 experienced implementation delays due to various factors. There was a limited interest from contractors to work in the socially unstable local context and under inclement weather conditions. This, coupled with limited capacity of ERA and state staff, caused delayed procurement. The performance of some contractors delayed the progress of civil works and disbursement. The slow construction of the state-funded relocation complexes delayed the implementation of resettlement plan and flyover construction. Delays were also caused by the ERA and state staff being stretched due to overlapping period of the then ongoing Loan 2151 (para 1), national programs, implementation of projects 1 and 2, and the appraisal of project 3 of the MFF program. The issue was partially mitigated by increasing staff in the project implementation unit (PIU) and strengthening inter-agency coordination. During its implementation, the project also experienced development challenges and a disastrous flood. Altogether, the implementation delays necessitated an extension of the closing date from March 2017 to May 2017.

9. Project 2 was classified category B for environment, category A for involuntary resettlement, and category C for indigenous peoples. It was categorized as "effective gender mainstreaming". Initial environmental examinations (IEEs) were prepared for the subprojects in accordance with ADB Safeguards Policy Statement (2009) and government requirements. The IEEs and the environmental management plans (EMPs) formed an integral part of the bidding and contract documents which included a grievance redress and monitoring mechanism, as well as provisions for occupational and community health and safety. A resettlement framework, an indigenous peoples planning framework, and resettlement plans were also prepared and approved by ADB (PCR, Appendix 10). A gender action plan (GAP) with 10 activities and 14 quantitative targets was implemented to create equal opportunities for women to participate in and benefit from the project.

D. Implementation Arrangements

10. As planned, ERA of the state was the executing agency. The project management unit (PMU) and PIU established under project 1 continued to operate under project 2. The PMU was responsible for identifying, formulating, appraising, designing, and implementing all subprojects. The PIU assisted the PMU in carrying out day-to-day implementation and management of works. The PMC and DSCs supported the preparation of detailed designs, the bidding process, and construction supervision. The public health engineering department (PHED) and ULBs were supported by the CBIS. The NRW consultant supported the preparation of a NRW reduction action plan. The GCDS supported the GAP implementation.

11. According to the project 2's project completion report (PCR), from the 62 loan covenants, 52 covenants were fully complied with, 7 partially complied with, and 3 were not complied with. Of the 7 partially complied with covenants, three pertained to the submission of combined report for audited project financial statements (APFS) for FY2018, affected persons of the Ganghyal drainage subproject were not being compensated, and unfinished reforms which involved changes in the state policy and direct involvement of the state legislature. The other four were delays in works under three contract packages leading to unfinished works as of project completion, delays in submission of quarterly progress reports, disclosure of APFSs on the ADB website, which was incomplete pending resubmission of APFS for FY2018. The first of the three covenants not complied with pertained to the creation of semi-autonomous entities or boards or other suitable institutional mechanism responsible for water supply, sewerage and drainage operations, for which the state government's decision was not yet made. Second was APFS of FY 2018, not being accepted by ADB due to combined audit opinion issued with other projects, incomplete annexures, few computational errors, and deficiencies in audit opinion. And the third was the audited entity financial statements (AEFS) for FY 2017 and prior years, which were combined with the APFS.

12. Project 2 benefited from a $0.4 million advisory technical assistance (TA) financed by ADB's TA. It assisted ERA in improving its functionality and developing project management and implementation capacity.[8] The TA provided guidance to ERA on handling procurement-related issues and establishing yearly targets for contract award and disbursement. At its completion, the TA was rated highly successful.[9]

II. EVALUATION OF PERFORMANCE AND RATINGS

A. Relevance of Design and Formulation

13. The PCR rated project 2 relevant. It indicated that at appraisal and completion, project 2 was strategically aligned with both ADB's and the government's development priorities, strategies and policies. Water quality and distribution were areas that received special attention in India's 11th Five-Year Plan (FYP) 2007-2012, which supported expansion of infrastructure on water supply, sewerage and solid waste and the need to fill gaps in urban basic services.[10] Likewise, urban development was identified as one of the priority sectors under the India's 12th FYP 2012-2017.[11] The plan emphasized the importance of structural and governance change at ULB levels and building capacity so that services can be sustainably provided.

14. Project 2 was aligned with ADB Strategy 2020, which placed the emphasis of urban infrastructure interventions on water supply, sanitation, waste management and urban transport.[12] ADB's Country Partnership Strategy (CPS) for India, 2009-2012, emphasized ADB's continued focus on infrastructure development.[13] Infrastructure development was one of the five thrusts defined in ADB's CPS for India, 2013–2017.[14] Urban services focused on expanding the coverage, quality, and continuity of basic services to improve urban quality of life and

[8] ADB. 2006. *Technical Assistance to India for Strengthening Urban Project Management in Jammu and Kashmir.* Manila (TA 4888-IND).

[9] ADB. 2013. *Technical Assistance Completion Report. India: Strengthening Urban Project Management in Jammu and Kashmir.* Manila (TA 4888-IND).

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

[11] Government of India, Planning Commission. 2012. *Twelfth Five Year Plan, 2012–2017: Faster, More Inclusive and Sustainable Growth*. New Delhi.

[12] ADB. 2008. *Strategy 2020: Working for an Asia and Pacific Free of Poverty*. Manila.

[13] ADB. 2009. *Country Partnership Strategy: India, 2009–2012—Abridged Version*. Manila.

[14] ADB. 2013. *Country Partnership Strategy: India, 2013–2017*. Manila.

environmental sustainability. In ADB's CPS for India, 2018-2022, one of the prongs of the strategic pillar on inclusive provision of infrastructure networks and services is inclusive urbanization, which aims to assist low-income states and support the investments in municipal infrastructure.[15]

15. Project 2 was implemented with some minor changes in scope. Due to poor performance of contractors, the number of overhead water supply tanks was reduced from 10 to 8. The length of drainage to be rehabilitated was shortened from 28.3 km to 26.6 km due to encroachment issues. Loan savings from these changes were partly reallocated to the rehabilitation of 23 drainage pumping stations, which addressed the emerging needs following the floods in 2014.

16. This validation recognizes that the preparation and formulation of DMF followed the 2013 (internal) Guidelines. However, the proposed STP was not reflected in the DMFs "outputs" or "output indicators" of both Periodic Financing Request (PFR) and PCR, hence, its linkage and contribution (or non-contribution) to the project's outcome could not be ascertained.[16] Also, it was not clear whether there was a viable operations and maintenance (O&M) plan for its operation and there was no contingency that would have taken into account the array of technical issues. This was considered a weakness in the project design as the above could have been foreseen during design stage, specifically in view of the potential technical risks (e.g., monsoon season not connected with a master plan; larger wastewater problem) and the unrealistic project implementation schedule to complete the project outputs.

17. Also, the PCR indicated that the skills training under the transport subproject was not implemented due to the lack of interest from the affected households. It noted (PCR, footnote 15) that the training needs assessment resulted in only four women expressing interest in livelihood training. The cost benefit analysis by ERA concluded that the training was not feasible to be conducted (PCR, Appendix 9, page 39). The target indicator could have been set realistically.

18. Moreover, the institutional reform targets were lofty, given the limited capacity of the state and the local political and social context. This validation holds the same view as the PCR (paras. 13 and 41) that overall, it became evident that the reform targets were rather ambitious considering the state's limited capacity and the local context, and development challenges which required a longer implementation period. The PCR (paras. 30 and 41) noted that the DMF was ambitious in achieving reforms that were partly dependent on legislative engagement and capacity. This validation assesses that reforms involving institutional reforms usually require a medium- to long- term view, and the time and resource requirements and capacity constraints should be factored during project preparation design stage. For instance, the PCR indicated that the executing agency despite its efforts were not able to push through all the reforms which involved changes in the state policy and direct involvement of the state legislature (PCR, Appendix 11, page 55). Also, the PCR indicated that the state was yet to decide on creation of semi- autonomous entities or boards or other suitable institutional mechanism responsible for water supply, sewerage and drainage operations either as a separate administrative unit or under the municipalities in the targeted towns (PCR, Appendix 11, page 54).

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

[16] As impact is the end-goal of the project and broader development benefits of the outcome, as a rule of thumb, the performance indicators at the impact level should include targets beyond the scope of the project, i.e., the intended impact to which the project will contribute. It should not indicate distinct activities/outputs aside from the main output/components.

19. On the whole, this validation assesses project 2 less than relevant.[17] The deficiencies in the design of the project had been identified at appraisal, specifically, its inability to mitigate risks could have been carefully considered during the project design stage. Given the project's limited time frame, capacity constraints, the local context's development challenges, some performance targets concerning institutional reforms were overly ambitious and could have been more conservatively formulated. This was also the case in the STP and the skill training.

B. Effectiveness in Achieving Project Outcome and Outputs

20. The PCR rated project 2 effective in achieving its outcome and outputs. It indicated that two out of 5 outcome targets were achieved, another was exceeded, one target was not achieved, and one was partially achieved. This validation assesses that the target of increase in average water supply was achieved while the performance indicator on the number of beneficiaries was met or even exceeded. However, one of the targets (i.e., increased volume of solid waste collected and disposed to 375 metric tons/day) was not achieved. For the two remaining indicators, the PCR noted that the reduction in water logging was reduced according to ERA. The pandemic posed problems on data gathering at completion. The PCR also noted that the vehicle-hours saved due to construction of flyovers was substantially achieved. However, it stated that a traffic volume survey was not conducted at project completion due to the challenges of COVID-19 pandemic. Alternatively, the contribution of flyovers to reduced travel time was confirmed through selected interviews in the communities (total 16 residents were interviewed who are frequent users of the flyovers). Given the lack of robust data and paucity of information, this validation assesses that the achievements of these two outcome indicators are indeterminate.

21. For outputs, PCR indicated that of 18 outputs in the DMF, 14 were achieved, 2 were partly achieved, and 2 were not achieved. This validation finds that there were 19 sub-output targets and indicators as planned based on the PFR of project 2. Of these 19 targets, 9 were achieved (47.4%), 7 were partially achieved (36.8%), and 3 were not achieved (15.8%). Of the 7 partially achieved targets, the two were augmentation of water supply (target: 23.5 MLD; achieved: 20 MLD) and construction of elevated expressway /flyover and upgrading of 2.5km roads in the project's target town (38% to be completed after loan closure). Another two were construction of elevated expressway/flyover and upgrading of 1.3 km roads in the target town (7% to be completed after loan closure) and rehabilitation of 28.3 km of drains (1.7 km not completed due to encroachment issues). Another one was the accrual-based accounting system adopted by project municipalities and balance sheets published from the fiscal year of 2015. Last, the two targets on organizational development plans for semi-autonomous entities for water supply and billing collection system which were not delivered as planned (PFR, DMF). Some output targets were completed with delays because the works were only partially completed at loan closure and fully finished later with government funds.

[17] ADB South Asia Department (SARD) disagrees with the assessment and rated the project relevant. It claims (i) the DMF followed the guidelines available at the time of appraisal to translate the outcome of the facility into the impact statement for each project, and that according to the memo on updated DMF guidelines issued in March 2015, the project was not required to update the DMF to follow the revised guidelines; (ii) the STP was not included in the scope of the project at approval, thus, the exclusion of the STP from the DMF should not be construed as a design weakness; (iii) cancelation of the skills training program resulted from the need to minimize the affected people during implementation and should not be a reason to evaluate the project as less than relevant; and (iv) institutional reform targets such as introduction of property tax are highly relevant to the project sustainability, and these reforms were realized shortly after project completion by the state even amid the difficult situation, indicating that they were highly relevant and critical to the project. Further, the limited achievements of the targets should be evaluated under the effectiveness rating and the delays in achieving the targets should be evaluated under the efficiency rating.

22. Also, this validation assesses that the three output indicators were not achieved, of which two pertained to the five skills training workshops and the completion of project on time and within the budget. Third, the partially achieved target was procurement of equipment for 12 laboratories and eight air and water quality monitoring stations, six mobile monitoring vehicles, and e-governance hardware and software by 2014. This validation assesses that a major output was not achieved (i.e., construction of STP). It should have been reflected as an output indicator in the DMF (para. 16). At completion, nine out of the 10 planned activities were completed, and 13 out of the 14 quantitative targets were achieved.

23. Project 2 was classified category B for environment. The environmental assessment review framework developed for the MFF was applied for project 2 and additional environmental assessment was prepared in the form of IEEs for subprojects identified at appraisal. EMPs prepared for subprojects laid out the main mitigation and management measures. There were no outstanding or unresolved issues reported on environmental risks and impacts during implementation.

24. On involuntary resettlement, project 2 was classified category A, as it affected a relatively large number of affected people, households, and businesses, especially those affected by the elevated flyover subproject. Resettlement plans were prepared according to the resettlement framework developed for the MFF, providing appropriate detail on the process for land acquisition, eligibility, compensation, consultations and grievance mechanisms among other support to affected people. At completion, compensation payment to people affected by the Gangyal drainage subproject was not completed. GAP implementation supported the achievement of gender-related output targets of the DMF.

25. Based on the above discussions, the project had incomplete outputs at the time of its completion and loan closing. Some of the critical and major outputs were incomplete which could not have resulted in the attainment of the envisaged outcome. Also, this validation assesses that the achievements of the two outcome indicators are indeterminate. Hence, this validation assesses project 2 less than effective.[18]

C. Efficiency of Resource Use

26. The PCR rated the project 2 efficient indicating the reevaluated economic internal rate of return (EIRR) of the nine subprojects combined was higher than the benchmark of 12%, suggesting project 2 to be economically viable. For water supply, there were two subprojects, including the target town's water supply system subproject and the PHED equipment subprojects in the target town. The non-incremental benefits considered in the EIRR recalculation were savings of labor cost, storage tank cost, cost of purchasing water from alternative sources, and water purification cost. The incremental benefit from additional water supply and consumption was not assessed in the PCR in order to be consistent with the appraisal analysis. For drainage,

[18] ADB South Asia Department (SARD) disagrees with the assessment and rated the project effective. It considers that the PCR assessment was in accordance with the 2016 Guidelines for the Evaluation of Public Sector Operations which state that the whole project is to be evaluated and rated, not just the ADB loan portion (para. 6); and provides that the outcomes and outputs may not necessarily be fully completed by the loan closure (paras. 27 and 29) as most of them were actually achieved with the state's own funding by the time of PCR preparation. ADB continues to monitor and support the implementation even after the loan closure until PCR preparation. SARD also considers that, based on the 2016 Guidelines (para. 30), use of relative weights based on the costs is allowed to assess the achievements if there is no other guidance on prioritization from project documents. SARD disagrees on the mechanical counting of achievement as the best or only way to determine the effectiveness rating. SARD is of the view that IED should have adhered to the application of the Guidelines and also considered country contexts in the effectiveness assessment.

the three subprojects were located in Digiana, Channi, and Athawajan. The benefits considered in the EIRR recalculation were health benefits due to reduced incidence of diseases and savings due to reduced waterlogging. For the two flyovers at Vikram Chowk and Jehangir Chowk, the benefits considered included savings in travel time and for the mechanized parking subproject, the benefits included savings in vehicle operating costs and travel time. For the solid waste management subproject, the benefits were considered in savings in labor cost and health benefits from reduced incidence of diseases.

27. The recalculated EIRRs were 12.2% and 8.5% for the two water supply subprojects, 14.1%, 22.1%, and 9.8%% for the three drainage subprojects, 15.6% and 14.1%% for the two flyover subprojects, 13.4% for the mechanized parking subproject, 24.7% for the solid waste management subproject, and 17.3% for all subprojects under project 2. However, the economic logic behind the "economic benefits" from the target town's parking subproject could not be ascertained in the absence of assumptions and parameters and the "with-the-project" and "without-the-project" analyses.

28. This validation notes that the overall EIRR of the project is above the ADB hurdle rate of 12%. While this validation finds that individual EIRRs of subcomponents are very sensitive to various factors affecting the benefit streams, on the whole, it assesses project 2 efficient.

D. Preliminary Assessment of Sustainability

29. The PCR rated the project likely sustainable. It indicated that the O&M responsibilities for the water treatment system, flyovers, drainage, and solid waste management and parking facilities lie with PHED, PWD, HUDD, and ULBs, respectively. The state government is mandated by the Constitution of India to allocate funds for sustaining the delivery of municipal services. For ULBs, finances are structured through fiscal transfers from the state in the form of grants and transfers from the central and state finance commissions. Financial analysis of the state government showed that the operating ratio for the period of FY2016 to FY2020 ranged from 1.02, 0.95, 0.84,10.9 and 0.87, with an average of 0.95. These numbers suggested a high likelihood that the state government's operating revenues would not be adequate to cover the O&M expenses.

30. The PCR (Appendix 12, paras. 2 and 3) indicated that targets were set under a proposed revenue enhancement action plan such as the implementation of water, SWM, and parking facility tariffs, and property taxes to help meet O&M and capital recovery costs. However, the tariffs have yet to be fully implemented, and O&M largely depends on government grants. Also, as project 2 could not recover capital cost, operating ratios were calculated for state government finances, and reviews of the overall finances of PHED, HUDD, PWD, and the municipal corporations were undertaken to determine capacity to meet O&M expenditure. The water supply, drainage, flyovers, mechanized parking, and SWM assets created by project 2 are not considered self-sufficient despite the collection of user charges.

31. Although, there has been some development since the loan closure, the status of the state was changed in 2019 and in 2021. This represents higher likelihood of budget allocation for basic infrastructures and services. Also, the computerized billing and collection system was being developed at loan closure in 2017 has now been put into use by PHED. The property tax has been introduced in February 2021 through the state's Municipal Act. In addition to the increased water tariff, the state has also implemented additional initiatives for efficiency improvement through reducing (i) the physical losses through rehabilitation of the old water pipe networks and (ii) energy consumption through replacement of electro-mechanical equipment.

32. Despite the above progress of reforms, this validation notes two fundamental factors that have a substantial impact on the project's sustainability. First, on water tariff, although in June 2018, the State Water Resources Regulatory Authority officially notified increase in water tariff covering both metered and nonmetered connections and both domestic and other users, the actual implementation of the new tariffs are being implemented gradually. The PCR (Appendix 12, para. 28) pointed out that "Analysis of PHED collections and O&M expenditure shows that the present extent of tariff collection was inadequate to meet O&M expenditure". The PCR (Appendix 12, para. 31) also pointed out that "Municipal corporation internal tariff collection is inadequate to meet O&M costs". As noted in the PCR DMF (Appendix 1-1) for project 3 and the MFF,[19] the envisaged capacity building and institutional development output target of 30% recovery of the O&M costs for water supply, as the first of the three-step improvement in financial performance of municipal corporation services, has not been achieved. Moving forward, there remain high uncertainties associated with the extent to which the O&M expenditure will be covered by the collection of approved new tariffs, for which there is no clear timebound plan of full implementation.

33. Second, while the change in the status of the state in 2019 and 2021 may potentially provide change in the environment, this validation argues that the main reason for including reforms both in the loan covenant and MFF design was to address the sustainability issue of service delivery in the target towns. At appraisal, it noted that irregular fund transfers from the state and outdated accounting practices, hampered budgeting of the towns (MFF's concept paper, paragraph 14). The constitutional mandate on fund allocations by state governments for delivery of municipal services, which already existed before the MFF and project 1 were approved, was already proved to be insufficient to ensure financial sustainability to operate and maintain the infrastructures. Notwithstanding the change in the status of the state, there is no clear and strong evidence on the extent to which the change would translate into additional and more assured fund allocations to cover O&M expenditure of this project, against the backdrop that the approved new tariffs can only be increased gradually. More fundamentally, it should be pointed out that continued reliance upon the allocation of government funds to cover the O&M expenses for financial and operational sustainability is a fundamental deviation from the originally envisaged cost recovery through increased water usage tariff, introduction of property taxes, and reduced water losses, which were integral to the guiding principle and key logic under which the MFF program was designed and approved. This deviation calls into question the program's sustainability.[20]

34. On the whole, sustainability of this project is not ensured, and is largely dependent on state's support. Unless there is a clear strategic, timebound plan of implementing full tariffs towards achieving financial sustainability to operate and maintain these service infrastructures, there is a high risk that sustainability issues identified at appraisal will persist. This validation assesses project 2 less than likely sustainable.[21]

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[19] ADB. 2021. *Completion Report. India: Jammu and Kashmir Urban Sector Development Investment Program (Project 3 and Multitranche Financing Facility)*. Manila.

[20] ADB. 2016. *Guidelines for the Evaluation of Public Sector Operations*. Manila

[21] ADB South Asia Department (SARD) disagrees with the assessment and rated the project likely sustainable. It views that based on Incremental Recurrent Cost Analysis allowed under ADB's Financial Analysis and Evaluation Technical Guidance Note (2019), it is reasonably concluded that the project is sustainable. Further supporting the sustainability rating is government's commitment to complete the project using its own resources. Sensitivities to country context should have also been given due consideration by IED in the sustainability assessment.

III. OTHER PERFORMANCE ASSESSMENTS

A. Preliminary Assessment of Development Impact

35. The PCR rated project 2's development impact satisfactory. At completion, project 2 generated a series of social and economic benefits. Under project 2's intervention, 0.54 million people gained access to municipal water supply services, 1.4 million people were served by a functional drainage system, and 1.4 million gained access to better road facilities. This validation assesses the development impact of project 2 satisfactory.

B. Performance of the Borrower and Executing Agency

36. The PCR rated the performance of the borrower and the executing agency satisfactory. The government as the borrower, represented by the Department of Economic Affairs, demonstrated strong ownership, and performed its functions in a timely and responsible manner. Project progress at key stages of implementation was facilitated by the borrower's supervision, guidance and quick decision-making. The state government provided strong support to the executing agency, including the timely provision of counterpart funding. The completion of works relating to water supply, drainage and flyover after loan closure was made possible by the state government funding. ERA as the executing agency demonstrated strong commitment to implementing the infrastructure improvement and institutional reform. It made generally adequate institutional and implementation arrangements, which facilitated interagency coordination, cooperation, monitoring and progress reporting. Staffing of PMU and PIU was strengthened to mitigate the overloading from 2012 to 2014. At loan closing, the project had no unsolved safeguard issues, except for the pending compensation payment to land and asset owners under the drainage subproject. The financial management performance of ERA could have been better, as the APFS for FY2018 was rejected due to noncompliance with the requirement. On the whole, this validation assesses the performance of the borrower and the executing agency satisfactory.

C. Performance of the Asian Development Bank

37. The PCR rated ADB's performance satisfactory. ADB was responsive and flexible on the requests from the borrower and the executing agency. ADB was closely involved in identifying and analyzing implementation issues. Throughout project implementation, ADB fielded 20 missions (2 for contracts, 11 loan for review, 3 for midterm review, and 4 for special loan administration). ADB's project team trained and supported the executing agency and PMU staff on procurement, disbursement and safeguard compliance. On the financial management performance of the project, ADB could have strengthened its monitoring of and support to the executing agency through more frequent communications and including a financial management specialist in the project team and missions.

38. The foundational framework documents prepared for MFF were appropriate for the overall program. Subsequent initial environmental examinations (IEEs) and resettlement plans prepared for the subprojects were sufficiently detailed in nature and provided a good sense of environmental and social risks and proposed management measures. Suggestions and guidance provided by ADB missions from time to time on environmental and resettlement aspects were crucial for adherence to safeguard policy requirements and compliance with loan covenants. This validation assesses ADB's performance satisfactory.

IV. OVERALL ASSESSMENT, LESSONS, AND RECOMMENDATIONS

A. Overall Assessment and Ratings

39. The PCR rated project 2 successful. This validation assesses project 2 less than relevant due to design deficiencies. It is assessed less than effective due to shortfalls in outcome and output targets. Project 2 is assessed efficient as the overall EIRR of the project is above the ADB hurdle rate of 12%. It is assessed less than likely sustainable due to its limited cost recovery and dependence on budgetary support. Overall, this validation assesses project 2 less than successful.[22]

Overall Ratings

Validation criteria	PCR	IED review	Reason for disagreement and/or comments
Relevance	Relevant	Less than relevant	Design deficiencies noted.
Effectiveness	Effective	Less than effective	Shortfalls in outcome and outputs.
Efficiency	Efficient	Efficient	
Sustainability	Likely sustainable	Less than likely sustainable	Limited cost recovery and dependency on budgetary support.
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. 45

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

B. Lessons

40. The PCR identified eight lessons. First, enhancing readiness at loan approval by having detailed designs would help deliver projects in a timelier manner. Second, the establishment of a land acquisition collector's office within the PMU proved extremely beneficial in coordinating involuntary resettlements. Third, MFFs impose a burden on executing and implementing agencies in the initial years as they prepare for subsequent projects while also being responsible for implementing the ongoing project, and this requires sufficient implementation support. Fourth, the ambitious reform agenda required more time given the local context and the state's capacity. Fifth, continued budget transfer from the state to the line departments for the O&M cost is necessary for sustainability until the line departments can recover the O&M cost through its operation. Sixth, the project schedule needs to be realistic in terms of consultant recruitment, detailed design, and contract periods. Seventh, the subprojects' scope needs to be more outcome-oriented, including end-to-end solutions, such as 24x7 water supply or 5–10 years O&M arrangement in construction contracts, subject to the capacity of the asset operator. Eighth, ADB needs to monitor compliance with APFS and AEFS submission requirements.

41. This validation supports the above lessons and offers two additional project-level lessons. First, detailed project planning and thorough risk assessment (e.g., acquisition and resettlement) is crucial for projects with development challenges and located in areas susceptible to unfavorable

[22] ADB South Asia Department (SARD) disagrees with the assessment and rated the project successful.

climatic conditions. This helps in minimizing the potential risks and challenges for implementation that could result in changes in project scope and implementation delays. Risk mitigation strategies and sufficient contingent plans need to be prepared at the outset to improve timely delivery of outputs and project effectiveness.

42. Second, a flexible approach to safeguard policies without strict adherence to established procedures or methods facilitate timely physical construction progress while ensuring the smooth implementation of resettlement plans. For instance, in the case of the construction of the elevated flyover from Jehangir Chowk to Rambagh, a sectional approach was proposed by ERA and approved by ADB. This approach allowed land acquisition to be carried out in a sequential basis within identified sections rather than requiring completion of all resettlement actions in advance of project commencement.

C. Recommendations for Follow-Up

43. The PCR made some specific recommendations for project implementation and general recommendations for MFF and project preparation. None of them involved further follow-up. This validation notes that ERA needs to ensure the timely and appropriate implementation of the corrective action plan for resolving the issue of pending compensation payment to land and asset owners under the drainage subproject and keep ADB informed in due course.

V. OTHER CONSIDERATIONS AND FOLLOW-UP

A. Monitoring and Reporting

44. The PMU established effective implementing and monitoring mechanisms through the PIU. Quarterly progress reports were submitted by ERA to ADB with some delay. Semiannual environmental and social safeguard monitoring reports were submitted to ADB on time. From FY2014 to FY2017, APFS were submitted, despite minor delays by 0.8 to 3.6 months in submitting four reports. For FY2018, the APFS was rejected due to it being a combined report for all projects despite the requirement of separate reports and opinions, incomplete annexures, some computational errors, and some deficiencies in audit opinion. Resubmission was pending. The borrower's PCR was prepared and submitted to ADB in December 2019.

B. Comments on Project Completion Report Quality

45. The PCR was generally candid and provided detailed description of the project design and implementation process. Major implementation issues were clearly explained. The environmental and social safeguards were succinctly summarized. The PCR's findings, lessons, and recommendations were useful. However, the EIRRs of the subprojects were found to be highly sensitive to some key assumptions. On the whole, this validation assesses the quality of the PCR satisfactory.

C. Data Sources for Validation

46. Data sources for this validation include the PCR, report and recommendation of the President and its linked documents, loan and project agreements, facility administration manual, mission back-to-office reports, aide-mémoire, safeguard assessment, environmental and social monitoring reports, national strategies and policies, and ADB strategies, policies, and guidelines.

D. Recommendation for Independent Evaluation Department Follow-Up

48. None.

APPENDIX 1: South Asia Department (SARD) Comments

SARD would like to convey disagreements with the PVR ratings as below:

1. **Relevance.** We disagree with the PVR's "*less than relevant"* rating. The context of design deficiencies mentioned in the report should be assessed with more accuracy and caution.

   (i) **Linkage between outputs-outcome and impact**. The project's DMF structure followed the 2013 DMF Guidelines specific instructions for Multitranche Financing Facility (MFF) at appraisal: "*For MFFs… the outcome of the Facility translates into the impact statement for the tranche DMF*." Thus, the MFF outcome on increasing people with access to sanitation translated as one of project 2's impacts. PVR should also consider that according to the memo on updated DMF guidelines issued in March 2015, the project was not required to update the DMF to follow the revised guidelines.

   (ii) **Inclusion of sewerage treatment plant (STP) in the DMF**. The STP was not included in the scope of project 2 at approval as ADB identified concerns and issues during preparation and concluded that further technical scrutiny was warranted. Thus, the exclusion of the STP from the project 2 DMF should not be construed as a design weakness as this was not required based on the final scope.

   (iii) **Capacity strengthening and reforms**. Output indicators related to institutional strengthening were conservatively selected at design and higher-level reforms requiring legislation were not included in the DMF because they were beyond project control. However, the level of deterioration in the local security was far beyond what was foreseeable at appraisal. Cancellation of the skills training program resulted from the need to minimize impacts during implementation. Many planned reforms in the state such as introduction of property tax were highly relevant to the project sustainability, and these reforms were realized shortly after project completion by the state amid the difficult situation, indicating that they were highly relevant and critical to the project.

   (iv) **Strong government ownership**. While there were implementation delays, all physical infrastructures were completed even after the loan closure using government funds amid the deteriorated situation. This demonstrates the strong commitment of the government and the priority given to the project interventions and objectives.

2. **Effectiveness.** We disagree with the PVR's "*less than effective*" rating due to incomplete outputs and indeterminate outcome achievement. SARD finds that there is lack of clarity on the application of the evaluation guidelines for this criterion and the guidelines are not clear enough to interpret IED's logic.

   (i) **Outcomes and outputs achieved after loan closure**. The PVR did not consider the final reported achievements after ADB loan closing with some outputs completed by the government. This is contrary with the (i) 2016 Guidelines on the Evaluation of Public Sector Operations which states that (a) <u>the whole project is to be evaluated and rated, *not just the ADB loan portion*</u> (para. 6), and (b) *effectiveness* assesses if outcomes and outputs were completed at the time of loan closure <u>*or later*</u> (paras. 27 and 29); and (ii) PAI 6.07a (revised in June 2019) which states that "if the completion date of outputs supported by government financing (excluding financing of capacity development activities) is later than the other portions, the PCR should be circulated within 18 months after the project completion date of the government-financed portion." Particularly in India, the government does not encourage loan extensions. This is an established practice with DEA to pursue implementation discipline (motivating ongoing all projects to complete on time). SARD supports this policy of the Indian government. Early closure does not mean that ADB's engagement will end there. Project team continues to monitor and support the implementation towards PCR preparation. This context needs to be considered in this validation. IED practice that only looks at the outputs achieved by the loan closure clearly deviates from the intent set forth in ADB's administration and evaluation of sovereign operations. Further, delays should be assessed under the *efficiency* criterion as this forms part of assessing process efficiency.

(ii) **Use of relative weights based on costs**. Based on the 2016 Guidelines (para. 30), the use of relative weights of outcomes and outputs based on their costs should be allowed in assessing the achievements especially if there is no other guidance on prioritization from project documents. We disagree on the mechanical counting of achievement as the best or only way to determine the rating for this criterion. The subjectivity imposed by the validation process on the use of appropriate approaches for the assessment of effectiveness in this particular case should be corrected (if not in this PCR then) through the revision of the 2016 Guidelines on the Evaluation of Public Sector Operations, i.e., focusing on more prescriptive directions to avoid subjective judgements on both the self and independent evaluation; and ensuring consistency with the Operations Departments' project processing and administration requirements such as encouraging innovation in the project design.

Sustainability. We disagree with the PVR's "*less than likely sustainable*" rating. We find that IED assessment has not adequately considered the following concerns in the sustainability analysis:

(i) Based on the Incremental Recurrent Cost Analysis in ADB's Financial Analysis and Evaluation Technical Guidance Note (2019), it is reasonably concluded that the project as well as MFF is sustainable. The total annual O&M cost of all the facilities developed under the MFF accounts for only 1.7% of the 2021 revised budget in these sectors after a change in the status of the state, and it is projected to further reduce to 1.2% in 2026.

(ii) Sensitivities should have also been given due consideration in the assessment of sustainability.

(iii) Strong government support is evident as remaining project facilities were completed using the state funds even amid the difficult situation.

APPENDIX 2: Independent Evaluation Department's (IED) Clarifications to South Asia Department's (SARD) Comments on the Project Completion Report Validation of Loan 2925 for India: Jammu and Kashmir Urban Sector Development Investment Program (Project 2)

1. **Relevance.** The project could not merit a "relevant" rating. First, the project's results chain at appraisal and completion lacked coherence and articulation. The linkage between outputs-outcome and impact were not clear and logical. The specific guidelines for the 2013 DMF (internal) guidelines that was shared to IED clearly outlines the vertical logic of the DMF on the means-ends relationship or the results chain of outputs-outcome-impact. Hence, it is not clear why this was to be an exemption. The validation has reiterated that the soundness of a DMF should be underpinned by the logic behind the results-chain (i.e., the outputs, outcome, and impact should be linked through a "cause–effect" relationship) and that there should be no distinct activities/outputs aside from the main outputs/components.

Second, the project design was overly-optimistic. The attendant risks that had been identified at appraisal were not mitigated through an appropriate risk management plan/s vis-a-vis the lofty outputs and outcomes targeted by the project. Limited institutional capacity and a state of flux in the political and social situation was observed at project design, and should have informed project design on potential project risks (e.g., refraining from assigning interventions that need political hand such as reforms, and other ambitious targets). For example, the skills training was not realistically formulated. Reforms involving institutional reforms usually require a medium– to long–term view, and the time and resource requirements and capacity constraints should be factored into the analysis. In view of the project's limited time frame, capacity constraints, inherent risks brought about by local development challenges, and performance targets concerning institutional reforms were overly ambitious and could have been more conservatively formulated.

Third, it was not clear whether there was a viable operations and maintenance (O&M) plan for its operation and there was no contingency that would have taken into account the array of identified technical issues. The proposed STP was not pursued under project 2 and was dropped from the MFF for the reasons, such as, the STP was connected to drains and not a sewerage network which was an ad hoc solution to a larger wastewater problem; the proposed STP was not part of any sewerage master plan; it was not to be operated during the wet monsoon or 2–3 months of a year, as sufficient natural dilution occurs; there was no viable O&M plan because no sewerage connections or sewerage tariffs would be levied; and insufficient time was available to procure and construct a STP within the remaining project period (PCR of Project 3 and MFF, page 25, footnote g). The above reasons were noted as design deficiencies as these could been foreseen during design stage, specifically in view of the potential technical risks and the unrealistic project implementation schedule to complete the project outputs. Overall, the project lacked adequacy of its design in addressing identified development constraints (risks) given its ambitious aims.

2. Effectiveness. The validation did not find enough basis to assess the project "effective". Based on an evaluation perspective, the assessment of the effectiveness relies whether the project's intended outcomes and outputs were achieved vis-à-vis the envisaged targets. The project had incomplete outputs at the time of its completion and loan closure. Of the 5 outcome targets, only two targets were completely achieved. The third outcome target on solid waste management was not achieved. While the fourth outcome target on water logging was noted by PCR as achieved, the component corresponding to the prevention of water logging (drainage) was only completed after loan closure using government funds (PCR para. 11), which meant that at completion in May 2017, the outcome target was not achieved. Also, there was no evidence on how this outcome target was achieved. The fifth outcome target which was noted by the PCR as achieved had no evidence to support its achievement. The two flyovers were completed after loan closure using government funds. The validation cannot assess an achievement of outcome and targets with no sufficient evidence to validate the results. Data collection and analysis could have been done through the PPMS and other types of benefit monitoring and evaluation during project implementation. Thus, data gaps could have been addressed at completion and mitigated the constraint posed by the Covid-19 pandemic in the data collection.

Moreover, the project had 5 main outputs and no output had achieved all its planned targets, which was expected to be delivered by project completion as approved during PFR. Likewise, there was no memo prepared for any change in scope nor the DMF was revised during implementation. Hence, assessment of the achievement should be based against the original timeline, performance indicators, and output targets (PCR, footnote 15). Output 1 achieved (2/4) 50% at completion: Output 2 achieved (3/5) 60%: Output 3 (2/3) 67%: Output 4 (1/5) 20%: Output 5 (1/2) 50%. Moreover, of the 19 sub-output targets, only 9 were achieved (47.4%), 7 were partially achieved (36.8%), and 3 were not achieved (15.8%). The two critical components of the project (water pipeline and flyover) to facilitate achievement of its outcome were completed after more than 2 years using government funds.

Second, the evaluation guidelines provide the discretion to assess the extent to which the outputs that were achieved contributed to the envisaged outcome. The use of weights based on the relative financial costs is just one of the approaches outlined in the Guidelines. This is only one form of evaluating the project's effectiveness and the final judgement of assessing the effectiveness lies on the evaluators. Under the project, the outcome targets were not completely achieved, and outputs were not fully met. The achievements of the two outcome indicators are indeterminate. Others were criticality of the components/outputs and relative poverty incidence.

3. **Sustainability.** The validation could not assessed the project "likely sustainable". Although there are some positive developments in the water tariffs, the actual implementation of the new tariffs has been slow. As noted in paragraph 20 of Appendix 10 of the PCR, the present extent of tariff collection is inadequate to meet O&M expenditure of the PHED, which has to depend on budgetary allocations from the state government. The extent to which the collection of new tariffs to cover the O&M expenditure remains uncertain as there is no clear timebound plan of full implementation (PCR, Project and MFF, DMF Appendix1-1).

The constitutional mandate on fund allocations by state governments for delivery of municipal services, which already existed before the MFF and project 1 were approved, proved to be insufficient to ensure financial sustainability to operate and maintain the infrastructures. Moreover, continued reliance on government funds for O&M expenses is a deviation from the originally envisaged cost recovery through increased water usage tariff, introduction of property taxes and reduced water losses, which were integral to the guiding principle and key logic under which the MFF program was designed and approved. This deviation calls into question the program's sustainability.

As a whole, there is marked uncertainty on how the O&M cost could be financed in the future in view of insufficient cost-recovery measures, especially on the tariff regime, in view of the lack of evidence that indeed, budget allocations would be able to cover O&M costs; institutional inefficiencies noted within state government that indicate lack of project readiness and financial absorptive capacity; and the project continues to depend on government funding and cost recovery measures have yet to be firmed up.