

SBF Project Completion Note**Bangladesh: Bangladesh Municipal Water Supply and Sanitation Project****1. Project Information**

Project ID:	P000068
Responsible department:	PSC1
Borrower:	People's Republic of Bangladesh
Implementing Agency:	Department of Public Health Engineering, Bangladesh
Financing type:	Sovereign-Backed Financing
Instrument type:	Loan
Member:	Bangladesh
Sector:	Water
E&S category:	B
Overall rating:	Successful
Effectiveness Assessment:	Effective
Relevance Assessment:	Relevant
Efficiency Assessment:	Efficient
Sustainability Assessment:	Likely sustainable

2. Project Development Objectives

To increase access to improved water supply and sanitation services in selected pourashavas (municipalities) and strengthen the pourashavas' institutional capacities for delivering water and sanitation services.

3. Key Dates

Approval:	07/11/19	Signing:	12/11/19
Effective:	03/05/20	Restructured (if any):	01/13/24
Orig. Closing:	12/31/24	More Restructured dates (if any)	12/30/2024; 5/14/2025
Rev. Closing:	12/31/25		

4. Financial Summary (US Dollar million)

Currency:	US Dollar		
Net Commitment:	75.00	Cancelled:	25.00
Disbursed:	69.59	Undisbursed:	5.41

5. Overall rating

Overall rating:	Successful
Executive summary of the completion note:	
The Bangladesh Municipal Water Supply and Sanitation Project (BMWSSP), jointly co-financed by Asian Infrastructure Investment Bank (AIIB) and the World Bank (WB), aimed to increase access to improved water supply and sanitation services in selected municipalities and strengthen municipal institutional capacity for water supply and sanitation (WSS) service delivery.	

The Project supported 30 secondary municipalities across Bangladesh through investments in water supply infrastructure, sanitation and drainage systems, and institutional strengthening measures. Despite significant implementation challenges, including the COVID-19 pandemic, global supply chain disruptions, severe flooding, political unrest, and delays in land acquisition, and slow contractor mobilization, the Project achieved substantial development results. More than 1.3 million people gained access to improved WSS services, while participating municipalities strengthened governance, financial management, service delivery systems, and citizen engagement mechanisms. Twenty-six municipalities commissioned water supply systems that meet national drinking water quality standards, and all participating municipalities expanded access to improved sanitation services.

Beyond expanding access to WSS services, the Project strengthened institutional capacity across all 30 participating municipalities through Institutional Performance Agreements, the Performance Assessment Scorecard (PAS), and targeted technical support. These mechanisms strengthened municipal governance and service delivery practices, including ring-fenced WSS accounts, billing and tariff systems, financial management, and citizen engagement. However, the delayed completion and commissioning of several investments limited the time available to establish sustainable operation and maintenance (O&M) arrangements, achieve full O&M cost recovery through tariffs, and consolidate fecal sludge management (FSM) operations.

Overall, the Project remained highly relevant to Bangladesh's sector priorities and AIIB's relevant strategies. The Project generated positive economic returns, with an estimated Economic Internal Rate of Return (EIRR) of 13.37% and a Net Present Value (NPV) of USD50.54 million. The sustainability of project outcomes is considered likely, subject to continued attention to tariff approval, O&M cost recovery, private operator arrangements, and operationalization of the full FSM service chain.

Section I. Effectiveness

Effectiveness Assessment:	Effective
Overall assessment of effectiveness:	
The Project was effective in delivering its core WSS outcomes and establishing key institutional foundations for municipal WSS service delivery. It exceeded the revised targets for improved water access (575,000 against 500,000), improved sanitation access (712,859 against 680,000), and operational water supply systems (26 against 22). All 30 municipalities achieved at least 50% on the Performance Assessment Scorecard. While WSS outcomes were strong, institutional sustainability was more mixed: only 12 municipalities achieved at least 80% O&M cost recovery against a target of 15, and some tariff, private-operator and FSM arrangements remained under consolidation at closing. Overall, the Project substantially achieved its project objective.	

Project Objective Indicators

Monitoring end year: 2025

Indicator Name	Unit of Measure	Baseline	Actual (Current)	End Target
People provided with access to improved water sources	Number	0	575000	500000
People provided with access to improved water - Female	Number	0	287500	250000
People provided with access to improved sanitation services	Number	600000	712859	680000
People provided with access to improved sanitation services -Female	Number	300000	356430	340000
Number of municipalities scoring 50% and above in Performance Assessment Scorecard	Number	0	30	30
Number of municipalities with operational water supply systems	Number	0	26	22

Comments:

Most Project Objective (PO) targets were achieved or exceeded. The Project reached 575,000 water beneficiaries (115% of the revised target), including 287,500 women, and 712,859 sanitation beneficiaries (105% of the revised target), including 356,430 women. Twenty-six municipalities had operational water supply systems compared with the revised target of 22, and all 30 municipalities achieved at least 50% on the Performance Assessment Scorecard. Intermediate results were also generally strong.

Intermediate Result Indicators**Monitoring end year: 2025**

Indicator Name	Unit of Measure	Baseline	Actual (Current)	End Target
Participating municipalities with at least 80% cost recovery on operations and maintenance	Number	0	12	15
Number of municipalities maintaining separate WSS bank accounts	Number	0	30	30
Number of municipalities supplying at least 11 hours per day of water to customers	Number	0	14	12
Number of municipalities supplying water of quality in compliance with Bangladesh standards	Number	0	26	30
Number of municipalities with developed and approved sanitation action plans	Number	0	30	30
Number of municipalities with at least 50% improved toilets	Number	0	27	25

Number of municipalities with Public Toilets being operated by Private Operators/SHGs	Number	0	16	20
Number of municipalities with operational service contracts for emptying	Number	0	0	15
Number of municipalities that implement drainage improvements to manage storm water and wastewater	Number	0	30	30
Number of municipalities maintaining Grievance Redressal Mechanism (GRM)	Number	0	30	30
Number of municipalities maintaining at least 30% attendance level of female members in Town Level Coordination Committees	Number	0	28	30
Percentage of beneficiaries expressing satisfaction over service provision (gender disaggregated)	Percentage	0	96.48	55
Number of municipalities that have public toilets managed by women run Self-Help Groups	Number	0	13	10
Number of municipalities with women employed in various roles in Water and Sanitation service delivery	Number	0	11	9

Comments:

All 30 municipalities maintained separate WSS accounts and approved sanitation action plans; 14 municipalities supplied at least 11 hours of water per day against a target of 12; 27 municipalities achieved at least 50 percent improved toilets against a target of 25; drainage improvements and Grievance Redress Mechanisms (GRMs) were in place in all 30 municipalities; and beneficiary satisfaction reached 96.48 percent. Shortfalls remained in O&M cost recovery, public toilet operations, female participation in Town Level Coordination Committees (TLCCs), and especially formal emptying-service contracts, reflecting the limited operating period after late commissioning and the need for further consolidation of service-delivery arrangements.

Achievement of Project Results - Component {x}:

Component 1 – Sector Support and Capacity Strengthening: Institutional foundations were established across the 30 municipalities. Ring-fenced WSS bank accounts were established in all municipalities; computerized billing systems were installed, with implementation continuing in some locations; tariff frameworks were approved in 15 municipalities and submitted for approval in the remaining 15; performance and O&M grants supported municipal operations; and the Department of Public Health Engineering (DPHE) Municipal Support Unit and national WSS/FSM Guidelines were established.

Component 2 – Investment for Water Supply Infrastructure: Twenty-six municipal water supply systems were operational at closing, serving an estimated 575,000 people. About 1,274 km of distribution networks were constructed against a target of 1,286 km, 73,263 metered household connections were installed; and all 26 operational systems met national water quality standards. Four systems were not fully commissioned by closing, although three were at advanced stages.

Component 3 – Improving Sanitation and Drainage: All 30 municipalities prepared approved sanitation action plans.

Approximately 22,399 household toilets were completed, benefiting about 112,859 people, and drainage improvements were implemented across all municipalities. The Project expanded investment in the Integrated Waste Management Facility/Fecal Sludge Treatment Plant (IWMF/FSTP) and simplified FSM facilities, but full-cycle FSM operations and some public toilet operating arrangements remained incomplete at closing.

Component 4 – Project Implementation and Management Support: The Project Management Unit (PMU), Technical Support Unit (TSU) and Sanitation Support Consultancy supported project coordination, fiduciary and E&S management, municipal planning, performance assessments, citizen engagement, gender mainstreaming, and reporting across 30 municipalities.

Section II. Relevance

Relevance Assessment:	Relevant
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Alignment with AIIB's Strategic Priorities:

The Project was aligned with AIIB's mandate to finance sustainable infrastructure and supported the Bank's thematic priority of Green Infrastructure by expanding climate-resilient urban water supply, sanitation, FSM and drainage services. It also promoted private capital participation in WSS operations and service delivery through performance-based private operator arrangements and strengthened municipal systems for financially sustainable service delivery. The Project's focus on secondary municipalities supported inclusive and sustainable urban development and contributed to Sustainable Development Goal (SDG) 6 on clean water and sanitation.

Alignment with Member policies, subnational planning and stakeholder needs, including changes to project objective and design:

The Project remained strongly aligned with Bangladesh's Sector Development Plan for Water Supply and Sanitation (2011–2025), the National Strategy for Water Supply and Sanitation (2014), the Eighth Five Year Plan, the National Adaptation Plan (2023–2050), and the Government's 2023 WSS Management and FSM Guidelines for municipalities. Its objectives also remained responsive to the needs of secondary municipalities for reliable piped water, safe sanitation, drainage and stronger institutional capacity.

Section III. Efficiency

Efficiency Assessment:	Efficient
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Achievement of efficiency, including implementation delays, cost overruns and savings:

Efficiency is assessed as Efficient. The Project generated an estimated EIRR of 13.37% and an NPV of USD50.54 million at a 9% discount rate; sensitivity analysis indicated that returns remained robust under downside scenarios. The Project avoided cost overruns and delivered substantial outputs under a significantly reduced financing envelope. Total project expenditure was about USD143.56 million compared with the original appraisal estimate of USD209.53 million, with AIIB disbursement of about USD69.59 million following a USD25 million cancellation from the original USD100 million commitment. The reduction in AIIB financing reflected adjustments in financing requirements during implementation rather than cost savings alone. The Project restructurings responded to implementation delays and constraints and included revisions to selected targets and financing allocations, while the later reduction in the financing envelope also reflected lower-than-estimated expenditures and favorable exchange-rate movements. Implementation and management costs represented about 7% of total expenditure. Efficiency was, however, affected by delays caused by COVID-19, supply-chain disruptions, land acquisition, severe flooding, political instability, electricity-connection delays and contractor abscondment. These factors led to backloaded commissioning and necessitated a one-year extension of the closing date, limiting the period available to test operational and financial sustainability before closing.

Section IV. Sustainability

Sustainability Assessment:	Likely sustainable
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Implementation of project-specific Environmental and Social (E&S) instruments, such as the Environmental and Social Action Plan (ESAP), including the establishment and operation of a project-level Grievance Redress Mechanism:

Implementation of Environmental and Social Instruments

The Project was managed in accordance with the applicable Environmental and Social Framework requirements, with environmental and social risks assessed as moderate and managed through a framework approach because the detailed locations and designs of all subprojects across the 30 municipalities were not fully defined at appraisal. The main environmental and social instruments included an Environmental Management Framework, project-level environmental assessment, and Resettlement Policy Framework, which provided the basis for screening, impact assessment, mitigation, consultation, disclosure, implementation responsibilities, and monitoring. As designs were finalized, site-specific Environmental and Social Management Plans, Contractor Environmental and Social Management Plans, and resettlement instruments were prepared and implemented. National environmental clearance was obtained from the Department of Environment on August 4, 2019 and renewed during implementation.

Overall implementation of the environmental and social instruments was satisfactory. Environmental and social mitigation measures covered construction camp management, dust and noise control, occupational health and safety, use of personal protective equipment, waste management, COVID-19 protocols, community health and safety, drainage works, water distribution pipelines, and fecal sludge management facilities. Land acquisition and resettlement impacts were limited to temporary displacement and minor asset losses affecting 164 households across 20 municipalities. Compensation was fully paid before civil works, consistent with the applicable resettlement framework, and no permanent physical displacement or livelihood loss was recorded. Gender and social inclusion measures were also implemented, including Gender Action Plans, women's participation in Town Level Coordination Committees, women's roles in WSS service delivery, and women-led Self-Help Groups managing public toilets in 13 municipalities.

Environmental and Social Monitoring and Evaluation

Environmental and social monitoring was progressively strengthened during implementation. Additional environmental assessments were undertaken in 2022 for 114 km of drainage networks, more than 1,029 km of distribution lines, and 14 fecal sludge treatment plants. Monitoring identified routine construction-stage non-compliances and performance issues, including localized PM2.5 and noise exceedances, gaps in personal protective equipment use, elevated COD levels in some water samples, and temporary community disturbances. These were addressed through corrective actions and follow-up monitoring. During implementation, the Project Team identified critical occupational health and safety risks, as reflected in the April 2024 PIMR. The OHS risks observed included inadequate PPE use, insufficient barricading and signage, poor housekeeping, and worker exposure to dust and construction hazards. The Project team and Client addressed these through immediate corrective actions, stronger contractor supervision, improved PPE compliance, better site controls, and regular monitoring, resulting in the resolution of identified OHS concerns with no major unresolved incident reported. At project closing, no long-term or irreversible environmental impacts, serious incidents, or major unresolved environmental and social non-compliances were reported.

The Project's monitoring and evaluation arrangements supported environmental and social performance management through the PMU, TSU, participating municipalities, management information systems, Performance Assessment Scorecard, Citizen Report Cards, beneficiary satisfaction surveys, and field supervision. Monitoring data were used to track implementation progress, verify institutional performance, inform restructuring decisions, and

address emerging gaps in service delivery, sanitation coverage, cost recovery, stakeholder feedback, and corrective action implementation.

Project-level Grievance Redress Mechanism

Project-level grievance redress mechanisms were established and maintained in all 30 municipalities, meeting the project target and providing accessible channels for affected people, communities, and other stakeholders to raise concerns. The GRM functioned as part of the Project's stakeholder engagement process by receiving feedback from consultations, Citizen Report Cards, Town Level Coordination Committee meetings, and routine community interactions; recording and screening complaints; referring issues to the relevant municipal or project authorities; and communicating follow-up actions to complainants and affected stakeholders. Grievance Redress Committees addressed complaints related to construction impacts, occupational health and safety, community health and safety, service delivery, and gender-based violence risks, with approximately 40 percent female representation. These arrangements strengthened stakeholder engagement, municipal responsiveness, transparency, and feedback loops. At closing, no major unresolved complaints or serious environmental and social incidents were reported.

Investment Sustainability (operational, financial/commercial, institutional):

Investment Sustainability is assessed as Likely sustainable, although important operational and financial risks remain. The Project established key institutional foundations: all 30 municipalities maintain ring-fenced WSS accounts; billing and collection systems are in place; national WSS/FSM guidelines provide a sector-wide policy framework; and the DPHE Municipal Support Unit was established. Operationally, 26 water systems were commissioned and met national water quality standards. However, many systems became operational only near project closing, leaving limited time to mature revenue systems and private operator arrangements. Only 12 municipalities achieved at least 80% O&M cost recovery against a target of 15, tariff by-laws remained pending in some municipalities, and FSM facilities require clearer operating models, demand creation and sustainable revenue streams. Continued Government and DPHE support will therefore be important to consolidate operations and protect the development outcomes. Overall, the Likely sustainable rating is justified because the Project has moved beyond infrastructure provision and established the core institutional, financial, and service-delivery systems needed to sustain the investments, with evidence from more mature municipalities that these arrangements can achieve cost recovery and effective service delivery. However, the rating remains subject to important risks because these systems have not yet matured uniformly across all municipalities. Continued Government and DPHE support—particularly through the MSU and follow-on sector programs—will be important to complete tariff approvals, strengthen billing and collection, consolidate O&M and private operator arrangements, operationalize viable FSM business models, and monitor municipal performance after Project closing. The sustainability of Project outcomes will therefore depend less on the physical durability of the investments than on whether these institutional and financial arrangements are fully operationalized and maintained over time.

Any Outstanding issues and Follow-up actions, if applicable:

Key follow-up actions are to: (i) complete and commission the remaining water supply works and resolve outstanding electricity/interconnection issues; (ii) complete remaining sanitation facilities and consolidate operational arrangements for FSTPs/IWMFs and simplified FSM systems; (iii) finalize tariff by-laws and strengthen billing, collection and O&M cost recovery; (iv) complete and strengthen private operator/service arrangements where still pending; (v) continue support to municipalities through DPHE's Municipal Support Unit; and (vi) monitor operational, financial and E&S performance during the early post-project period.

Lessons Learned

Lesson 1.

Category	Project Design
What had AIIB planned would happen?	The project was designed on the assumption that infrastructure investments and institutional strengthening would progress in parallel, enabling municipalities to commission water supply and sanitation systems with the necessary governance, tariff, billing, financial management, and operational arrangements already in place to deliver sustainable WSS services by project closing.
What happened during implementation?	Success factors • Strong implementation support from the World Bank and AIIB, including regular supervision, timely project restructurings, and adaptive management, helped preserve the project's development outcomes despite significant implementation disruptions. The Performance Assessment Scorecard (PAS), Technical Support Unit (TSU), and incentive-based institutional support also encouraged municipalities to establish governance, financial management, and citizen engagement systems. Challenges • The project faced multiple external and implementation challenges, including the COVID-19 pandemic, severe flooding, political unrest, contractor performance issues, delays in land acquisition, electricity connections, and slower-than-expected institutional reforms. These factors delayed infrastructure commissioning and compressed the time available for municipalities to operationalize tariff systems, billing, O&M arrangements, and financial sustainability before project closing.
Why was there a difference between what was planned and what happened?	The implementation schedule was significantly affected by COVID-19, severe flooding, political instability, contractor performance issues, delays in land acquisition and utility connections, and slower-than-anticipated institutional reforms. As a result, infrastructure delivery and institutional strengthening became de-synchronized, compressing the period available to establish sustainable service delivery before project closing.
What can AIIB do differently in the next project?	Future municipal WSS projects should place greater emphasis on implementation sequencing by ensuring operational readiness—including tariffs, billing systems, O&M arrangements, staffing, and institutional capacity—before or alongside commissioning of infrastructure. Project implementation schedules should also allow sufficient post-commissioning support to consolidate municipal capacity and demonstrate sustainable service delivery outcomes, particularly in complex, multi-municipality operations.

Lesson 2.

Category	Construction and Preparations
What had AIIB planned would happen?	The project was designed with the expectation that implementation readiness—including detailed engineering designs, bid documents, early mobilization of technical support, and implementation partnership arrangements—would enable timely procurement, construction, and commissioning of WSS infrastructure across 30 municipalities. Infrastructure development and institutional strengthening were expected to progress in parallel to achieve sustainable service delivery.
What happened during implementation?	Although most infrastructure was ultimately completed, implementation experienced significant delays. Construction and commissioning were affected by COVID-19, land acquisition delays, late mobilization of the Sanitation Support Consultancy, contractor capacity constraints and abscondment, political unrest, flooding, and regulatory approvals. As a result, many systems were commissioned

	only toward the end of the project, leaving limited time to demonstrate operational performance and financial sustainability.
Why was there a difference between what was planned and what happened?	Project preparation underestimated the complexity of implementing civil works simultaneously across 30 municipalities, the limited contractor market in smaller towns, and the time required for institutional reforms to support infrastructure operations. These challenges were compounded by external shocks, including the COVID-19 pandemic, political instability, flooding, and supply chain disruptions, which delayed procurement, construction, and commissioning.
What can AIIB do differently in the next project?	AIIB should strengthen implementation readiness by confirming land availability, procurement readiness, contractor market capacity, and operational arrangements before construction begins. Future projects should sequence infrastructure investments with institutional readiness and commissioning milestones, conduct upfront market assessments, consider bundling contracts to attract stronger contractors, and use clearer readiness criteria before commissioning to reduce implementation risks and improve operational sustainability

6. Client feedback

1. Are the services and support provided by the project team professional, sufficient, and in time during project preparation and project implementation? Please provide some specifics or examples as an illustration.

Feedback of PMU: You are well aware of the cofinancing of the IDA and AIIB for the BMWSSP project, where the IDA served as the lead role. Even though PMU found the AIIB project team professional, sufficient, and in time during project preparation and implementation. Several implementation missions took place during the project implementation. That time we got direct advice from AIIB for proper and smooth implementation of the project.

2. Is it convenient to access the Project Team's services and support? Please provide some specifics or examples as an illustration.

Feedback of PMU: As most of the communication was done with IDA, there was limited access to the AIIB project team. If there was any local office or team in Bangladesh, it would be more convenient. However, the IDA team has provided necessary services and support when required.

3. Does the project team demonstrate flexibility and efficiency during project preparation and project implementation? Please provide some specifics or examples as an illustration.

Feedback of PMU: Yes. We found the project team very much flexible and efficient.

4. What is the value addition of AIIB's financing in the project?

Feedback of PMU: This project was the first project of DPHE where AIIB participated as a cofinancing agency. This opportunity opens the door to a new development partner for the WASH sector of Bangladesh.

5. Will you consider working with the AIIB again in infrastructure development? Please provide a few specific reasons.

Feedback of PMU: Definitely DPHE will love to work again with AIIB in infrastructure development, as we found AIIB very much flexible, efficient, and reasonable during project implementation. We suggest the AIIB communicate with the policy-making level of the Bangladeshi government with a better and attractive investment

offer, which will help the improvement of the socio-economic condition of the general people.

6. Do you have any suggestions for the project team and/or the AIIB for them to improve their operations in the future?

Feedback of PMU: BMWSSP was cofinanced by AIIB and IDA. As IDA was in a lead role, we are not well aware of AIIB financing policy or process, procurement guidelines, or implementation standards. We will suggest AIIB arrange some training or workshop in the AIIB headquarters or regional office so that we can understand better about the AIIB policies and prepare our project proposal accordingly.

At the same time, some on-the-job training in the places (developing or developed countries) where AIIB is investing in the WASH sector is also required to understand the implementation standard along with modern technologies and facilities, which will ensure better workmanship during implementation.

7. Other comments, such as comments on the reporting requirements, approval of project changes, etc.

Feedback of PMU: The interest rate of BMWSSP is quite reasonable. It would be better if the rate were more flexible. For the preparation of an investment project, technical assistance (TA) projects or feasibility study projects may be carried out by grant support instead of loans. For ensuring proper utilization of the investment project, some post-project support may be initiated for operation and maintenance of the facilities.
