



# Technical Assistance Report

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Project Number: 34418-024  
Transaction Technical Assistance (TRTA)  
November 2021

## People's Republic of Bangladesh: Support to Southwest Area Integrated Water Resources Planning and Management Project—Additional Financing

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Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 4 November 2021)

Currency unit	–	taka (Tk)
Tk1.00	=	\$0.01167
\$1.00	=	Tk85.6906

## ABBREVIATIONS

ADB	–	Asian Development Bank
BDP	–	Bangladesh Delta Plan
BWDB	–	Bangladesh Water Development Board
FCD/I	–	flood control and drainage/irrigation
GDP	–	gross domestic product
MOWR	–	Ministry of Water Resources
O&M	–	operations and maintenance
SAIWRPMP	–	Southwest Area Integrated Water Resources Planning and Management Project
TA	–	technical assistance
WMG	–	water management group
WMO	–	water management organization

## NOTES

- (i) The fiscal year (FY) of the Government of Bangladesh and its agencies ends on 30 June. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2021 ends on 30 June 2021.
- (ii) In this report, “\$” refers to United States dollars

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## TRANSACTION TECHNICAL ASSISTANCE AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number:</b> 34418-024
<b>Project Name</b>	Support to Southwest Area Integrated Water Resources Planning and Management Project – Additional Financing	<b>Department/Division</b> SARD/BRM
<b>Nature of Activity</b>	Project Preparation, Capacity Development	<b>Executing Agency</b> Bangladesh Water Development Board
<b>Modality</b>	Regular	
<b>Country</b>	Bangladesh	
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>
✓ Agriculture, natural resources and rural development	Agricultural production	0.30
	Rural water policy, institutional and capacity development	0.40
	Water-based natural resources management	0.30
	<b>Total</b>	<b>1.00</b>
<b>3. Operational Priorities</b>	<b>Climate Change Information<sup>1</sup></b>	
✓ Addressing remaining poverty and reducing inequalities	GHG Reductions (tons per annum)	0.000
✓ Accelerating progress in gender equality	Climate Change impact on the Project	Low
✓ Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability	<b>ADB Financing</b>	
✓ Promoting rural development and food security	Adaptation (\$ million)	1.00
✓ Strengthening governance and institutional capacity	Mitigation (\$ million)	0.00
	<b>Cofinancing</b>	
	Adaptation (\$ million)	0.00
	Mitigation (\$ million)	0.00
<b>Sustainable Development Goals</b>	<b>Gender Equity and Mainstreaming</b>	
SDG 1.b	Gender Equity (GEN)	✓
SDG 2.4		
SDG 5.c	<b>Poverty Targeting</b>	
SDG 6.b	Geographic Targeting	✓
SDG 8.4		
SDG 10.4		
SDG 12.c		
SDG 13.a		
<b>4. Risk Categorization</b>	Complex	
<b>5. Safeguard Categorization</b>	Safeguard Policy Statement does not apply	
<b>6. Financing</b>		
<b>Modality and Sources</b>	<b>Amount (\$ million)</b>	
<b>ADB</b>	<b>1.00</b>	
Transaction technical assistance: Technical Assistance Special Fund	1.00	
<b>Cofinancing</b>	<b>0.00</b>	
None	0.00	
<b>Counterpart</b>	<b>0.00</b>	
None	0.00	
<b>Total</b>	<b>1.00</b>	
<b>Currency of ADB Financing:</b> US Dollar		

<sup>1</sup> The project reduces greenhouse gas emissions. However, it does not fall under the eligibility criteria for climate mitigation finance as defined by the joint multilateral development bank methodology on tracking climate finance, which notes that not all activities that reduce greenhouse gases in the short term are eligible to be counted towards climate mitigation finance. Accordingly, greenfield fossil fuel projects are excluded, and climate mitigation finance is considered zero.

## I. THE TECHNICAL ASSISTANCE

1. The Southwest Area Integrated Water Resources Planning and Management Project (SAIWRPMP), implemented by the Government of Bangladesh (the government) and supported by the Asian Development Bank (ADB) and the Government of Netherlands, sought to enhance the livelihood of the rural population by improving the productivity and sustainability of existing underperforming flood control and drainage/irrigation (FCD/I) schemes through holistic and participatory planning, development, and management of water, and delivery of support services to address locally identified constraints on agriculture, fisheries, and livelihood development.<sup>1</sup> The success of SAIWRPMP encouraged the government to expand and replicate the interventions in new project areas using additional financing of \$45.0 million under SAIWRPMP Phase II (ongoing project) and \$71.0 million under Phase III (ensuing project), using concessional ordinary capital resources loan.<sup>2</sup> Phase III will cover Tungipara and Kotalipara Upazilas of Gopalganj district, with an estimated \$71.0 million ADB financing component, to (i) strengthen climate change- and disaster- resilience of existing FCD/I schemes in Phase III areas; (ii) support capacity building of beneficiaries and relevant stakeholders in operations and maintenance (O&M) of assets under the ongoing and ensuing projects, increase productivity of agriculture and fisheries, livelihood development; and (iii) increase awareness of climate change impacts and management. The project will have a strong focus on the poor and vulnerable groups and women through comprehensive study of the changing rural economic landscape in the country and targeted livelihood interventions.

### A. Justification

2. The proposed transaction technical assistance (TA) will support the government in (i) project preparatory activities for the ensuing project, and (ii) additional capacity building activities under the ongoing project. The TA will address some of the diverse, complex, and interlinked institutional challenges by strengthening the sustainability of capacity building interventions under ongoing and ensuing projects as well as support project preparatory activities of ensuing project. Climate change- and disaster- resilience will be the key underlying principle for all TA outputs. A One ADB approach will be adopted in framing and developing the rural livelihoods study. Cohesiveness and strategic alignment of the TA scope will be ensured through consultations with relevant sector divisions within ADB and with external stakeholders. As the loan funds under the ongoing project have already been allocated for planned interventions, TA funds are being requested. The TA is included in the Bangladesh Indicative Country Pipeline and Monitoring Report, 2022–2024.<sup>3</sup> The TA is aligned with ADB Strategy 2030's operational priorities.<sup>4</sup>

3. **Country context.** No other highly populated country illustrates the centrality of water and the critical need for managing climate change impacts towards achieving inclusive and sustainable growth as Bangladesh has demonstrated in the past decade. The country is one of the fastest growing economies in the world clocking an average 7.0% during financial year (FY)

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<sup>1</sup> ADB. 2005. [Southwest Area Integrated Water Resources Planning and Management Project](#). Manila.

<sup>2</sup> ADB. 2015. [Southwest Area Integrated Water Resources Planning and Management Project–Additional Financing](#). Manila. Phase II project area covered Faridpur, Gopalganj, Magura, Rajbari Upazilas.

<sup>3</sup> ADB. 2021. [Bangladesh: Indicative Country Pipeline and Monitoring Report, 2022–2024](#). Manila.

<sup>4</sup> ADB. 2018. [Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific](#). Manila. The operational priorities (OPs) that the TA will support are (i) OP1: addressing remaining poverty and reducing inequalities; (ii) OP2: accelerating progress in gender equality; (iii) OP3: tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability; (iv) OP5: promoting rural development and food security; and (v) OP6: strengthening governance and institutional capacity.

2009–2019, with per capita income rising from \$754 to \$2,064, and poverty incidence falling from 35.0% to 20.5% and extreme poverty rate from 18.0% to 10.5%, graduating from low-income country to a lower middle-income country in 2015.<sup>5</sup> Economic structures have been transformed with steadily decreasing share of agriculture in national gross domestic product (GDP) and in rural economy and narrowing the urban-rural divide. What makes this change truly remarkable is that this achievement came amidst the backdrop of being the seventh most vulnerable country in the world to climate change risk incurring 0.4% GDP losses during 1999–2018,<sup>6</sup> as well as ranking among the top five nations most at risk from natural hazards, particularly to cyclones and floods.<sup>7</sup> This has been possible largely due to a combination of inclusive development policies and focused attention to managing climate change- and disaster- risks. Bangladesh has undertaken a progressively comprehensive approach to management of water as an economic resource and building risk resilience as an integral solution to inclusive economic growth.

4. **Water resource management in ensuing project areas.** The Ministry of Water Resources (MOWR) is the apex water resource management body directing water-related policy and strategy in the country, while the Bangladesh Water Development Board (BWDB) is its principal agency. BWDB is notable for technical capacities in planning and development of water-related infrastructure. However, further capacity augmentation of BWDB in decentralized water management and integrated planning that is flexible and adaptable to future development pathways is needed. This is particularly relevant for the low-lying areas of Tungipara and Kotalipara Upazilas where flooding and drainage congestion affects 23,169 hectares of cultivable area. These regions are fraught with complex interlinked hydrological, hydraulic, environmental, social, and economic challenges that are addressed by the ensuing project through climate resilient FCD/I strengthening interventions, including river dredging, re-sectioning of embankment, rehabilitation of existing regulators and gates, re-excavation of *khals*, protective works, and construction of other structures and training centers for water management groups (WMGs) and water management organizations (WMOs). The ensuing project will place special focus on the sustainability of the FCD/I interventions to negate similar issues observed under the ongoing project due to the acute staffing shortage at the Office of Chief Water Management that affected WMO trainings in mobilizing and effective use of O&M funds and delayed WMO activities.

5. The ensuing project also recognizes that structural transformations of the hitherto predominantly agricultural rural economic landscapes could intrinsically benefit the skilled and educated to capitalize on emerging economic opportunities and marginalize the poor and vulnerable groups and women from the development narrative.<sup>8</sup> Considering the high poverty and low adult literacy levels (59.5%)<sup>9</sup> and disparities (0.16–0.19 Gini coefficient in 2010)<sup>10</sup> prevalent in project areas and the projected additional unemployment due to environmental vulnerabilities,<sup>11</sup>

<sup>5</sup> General Economics Division, Planning Commission, Government of the People's Republic of Bangladesh. 2020. [Eighth Five Year Plan \(July 2020–June 2025\): Promoting Prosperity and Fostering Inclusiveness](#). Dhaka.

<sup>6</sup> Germanwatch. 2021. [Briefing Paper: Global Climate Risk Index 2021–Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2019 and 2000-2019](#). Bonn.

<sup>7</sup> Bündnis Entwicklung Hilft and United Nations University–EHS. 2016. [World Risk Report 2016](#). Bonn.

<sup>8</sup> It is assumed that the share of agriculture in employment and GDP is following national trends shifting to non-farm-based production activities and services. Data indicates that between 2000–2018, GDP share of agriculture reduced from 26% to 13% and share of employment fell from 51% to nearly 40% (Source: Bangladesh Development Forum. 2020. [Session Paper by Local Government Department, Government of Bangladesh](#). Dhaka.)

<sup>9</sup> Bangladesh Bureau of Statistics, Statistics & Informatics Division (SID), Ministry of Planning, Government of the People's Republic of Bangladesh. 2017. [2016 Statistical Year Book Bangladesh 36<sup>th</sup> Edition](#). Dhaka.

<sup>10</sup> Source: Government of Bangladesh. 2020. [Bangladesh Delta Plan 2100](#). Dhaka. It states Gini coefficient of Kotalipara Upazila at 0.16 and Tungipara at 0.19.

<sup>11</sup> Almost one third of the 10.3 million additional unemployment by FY2031 is predicted to be generated in the coastal zone because of its environmental vulnerability (footnote 10).

a comprehensive study to map the nature and extent of causalities and determinants of the impact on livelihoods and develop the strategies to improve rural household incomes and strengthen their economic resilience is necessary.

## **B. Outputs and Activities**

**6. Output 1: Technical design prepared, and due diligence completed for ensuing project.** The Bangladesh Delta Plan (BDP) 2100 identifies flooding, drainage congestion, water logging, arsenic contamination of groundwater, and water deficits in dry season as the principal challenges affecting areas of ensuing project (footnote 10). The ensuing project proposes strengthening of FCD/I schemes for climate change- and disasters- risks that can protect about 70% of the land while the rest are utilized for culture fishery. Considering that management of water-related risk is identified as fundamental for economic growth and resilience, the TA will support BWDB in formulation of ensuing project, including strengthening measures for climate change- and disaster- resilience of existing FCD/I schemes, due diligence for all technical, economic, financial, procurement, gender, environmental and social safeguards aspects, and climate risk vulnerability assessments.<sup>12</sup> The TA will also support preparation of terms of reference for consultancy packages to be procured under the ensuing project.

**7. Output 2: Rural Livelihoods Action Plan developed.** Interventions under the ADB's ongoing and ensuing projects (footnotes 1 and 2) will significantly impact livelihood patterns as flood protection works will increase cropping intensity, but also cause a net reduction in capture fishing productivity that will necessitate livelihood shift towards culture fishing and intensification of agricultural patterns, both of which require knowledge of and skills to adopt modern technologies as well as access to support systems during the shift.<sup>13</sup> In parallel, the ongoing economic diversification and the proposed plans by the government to provide basic services comparable to urban areas (under government's Amor Gaon Amor Shahar national flagship program) will significantly alter and redistribute livelihood patterns and enhance economic development.<sup>14</sup> The TA will support a comprehensive analysis of the current socioeconomic structures and livelihood patterns in the project areas, identify opportunities posed by emerging sectors, and suggest climate resilient livelihoods and specific actionable measures for addressing skills and capacity gaps among different socio-cultural and economic groups, particularly the poor and vulnerable groups and women, to ensure contextually appropriate, inclusive, sustainable, resilient, and vibrant development pathways and diverse rural livelihoods.

**8. Output 3: Capacity of Water Management Organizations and beneficiary groups strengthened.** The effectiveness of the FCD/I schemes depends on sustainability of O&M by the WMGs and WMOs. Therefore, besides extending support in establishing WMOs and WMGs and their trainings in O&M, the TA will support formulation of a resource plan for sustainable operations of the WMOs under ongoing and ensuing projects, including financing options, instruments and strategies to directly accrue contributions from BWDB and other government

<sup>12</sup> Indicative safeguard categorization for the TA is "B" for environment, "B" for involuntary resettlement and "C" for Indigenous Peoples as per [ADB Safeguard Policy, 2009](#).

<sup>13</sup> The Feasibility Study Reports for the subprojects of (i) Tarail-Pachuria, (ii) Ramshil-Kafulabari, and (iii) Rajoir-Kotalipara, submitted by BWDB to ADB in February 2020, state that the project interventions will have an impact on capture fisheries due to the elimination of annual floods and drainage congestion though productivity of capture fisheries is expected to increase leading to overall increase in fisheries productivity. Post-project productivity of culture fisheries is expected to decrease by 28.86 metric tons but will be compensated by the expected 8,141.70 metric tons productivity from culture fisheries.

<sup>14</sup> My Village-My Town project is implemented by Local Government Engineering Department Government of Bangladesh, and aims to provide modern civic amenities and basic facilities in every village, including income-generating opportunities, infrastructural development, electricity, quality health services and education.

sources to WMOs during the transition period, and for efficient and full cost recovery of O&M of water-related assets in the longer term. The TA will support the Office of Chief Water Management in training WMOs to function as envisaged under the Participatory Water Management Rules, 2014 (PWMR 2014). Implementation of select activities from the Rural Livelihood Action Plan will be an important component supported under the TA, which will include use and establishment of extension centers for agriculture and soil development, pisciculture, feedstock, value added products, etc. Institutional collaboration and financing strategies for these extension centers will also be developed using TA support. Livelihood generation activities and training programs will specifically target the poor and vulnerable groups and women, considering the local contexts and available capacities.<sup>15</sup>

9. **Value addition.** Considering the criticality of effective O&M for long term sustainability of FCD/I schemes developed under the project and other government schemes, the TA will support the development of a resource plan for sustainable operations of WMOs and WMGs, as well as the agriculture and fisheries interventions that will be established in collaboration with the line departments. The TA will also attempt to understand the implications of the current and future development trajectories in the project areas and impact on rural economies and help map the different causative factors and quantify dependencies. The livelihood study will contribute significantly in generating critical evidence to support design and planning of climate resilient development pathways, and devise localized strategies for formulating inclusive and sustainable rural livelihoods. The study will also assist in evidence-based policy-making for adaptation measures, particularly water-related interventions, within the regional socioeconomic context.

### C. Cost and Financing

10. The TA is estimated to cost \$1,100,000, of which \$1,000,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF 7). The key expenditures items are listed in Appendix 1. The government will provide in-kind support in the form of data, staff time, and meeting and event venues; review of recommendations and tools provided by the consultants; and participation in trainings, workshops, and knowledge sessions. The government was informed that approval of the TA does not commit ADB to finance any ensuing project. Entire TA funds is considered climate adaptation as (i) FCD/I strengthening proposed under Output 1, (ii) rural livelihood study under Output 2 that will explore and suggest climate resilient livelihoods, and (iii) trainings and capacity building under Output 3 for O&M of flood protection infrastructure, indicate climate change adaptation as fundamental objective and principle for all TA activities.

### D. Implementation Arrangements

11. ADB will administer the TA, in consultation with the executing and implementing agencies. ADB's South Asia Department will select, supervise, and evaluate consultants, and undertake procurement of consulting services. The executing agency will provide overall direction, oversight, policy advice, and necessary coordination among various agencies to avoid duplication and ensure effective and timely delivery of outputs of the TA. The coronavirus disease (COVID-19) pandemic is not expected to have any major impact on the TA implementation and a buffer has been incorporated in the cost estimates and implementation period to mitigate cost increases and implementation delays due to COVID-19 pandemic. The TA will adopt appropriate occupational health and safety measures to safely engage with stakeholders during implementation period. The implementation arrangements are summarized in the table.

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<sup>15</sup> The DMF of the ongoing project was updated to reflect the outputs and activities of the transaction TA. The updated version is in the project administration manual.



### Implementation Arrangements

Aspects	Arrangements		
Indicative implementation period	January 2022–December 2023		
Executing agency	Government of Bangladesh, acting through Bangladesh Water Development Board of the Ministry of Water Resources		
Implementing agencies	Project management unit, will play the principal role in administration and supervision of the TA together with ADB, including implementation oversight, accountability for the outputs, and communication with consultants and stakeholders. ADB will administer the TA in consultation with executing and implementing agency.		
Consultants and Resource Persons	To be selected and engaged by ADB		
	Firm: QCBS	National (4.5 person-months)	\$200,000
	Individual Consultants: Framework agreement or ICS	International (15.5 person-months)	\$337,140
		National (18.5 person-months)	\$181.870
Resource Persons: ICS	International (3.0 person-months)	\$58,070	
		National (2.0 person-months)	\$20,758
Disbursement	Disbursement of TA resources will follow ADB's <i>Technical Assistance Disbursement Handbook</i> (2020, as amended from time to time).		

ADB = Asian Development Bank, ICS = individual consultants' selection, QCBS = quality- and cost-based selection, TA = technical assistance.

Source: Asian Development Bank.

12. **Consulting services.** The TA will require about 43.50 person-months of consulting services and resource persons. A national firm with estimated input of 4.50 person-months will be recruited through a simplified technical proposal and quality-and cost-based selection method with 90:10 quality-cost ratio; and individual consultants (34.00 person-months) and resource persons (5.00 person-months) will be recruited to support implementation, quality control, and capacity building. Considering the time required to engage consulting firm amid extant global and national pandemic restrictions, and the timeline for ensuing loan processing, engagement of individual consultants is proposed in lieu of consulting firm. ADB will engage consultants following ADB Procurement Policy (2017, as amended from time to time) and its associated staff instructions.<sup>16</sup>

## II. THE PRESIDENT'S DECISION

13. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$1,000,000 on a grant basis to the Government of Bangladesh for the Support to Southwest Area Integrated Water Resources Planning and Management Project–Additional Financing, and hereby reports this action to the Board.

<sup>16</sup> Terms of Reference for Consultants (accessible from the list of linked documents in Appendix 2).

**COST ESTIMATES AND FINANCING PLAN**  
(\$'000)

Item	Amount
<b>A. Asian Development Bank<sup>a</sup></b>	
1. Consulting Firm	200.00
2. Individual Consultants	
a. Remuneration and per diem	
i. International consultants	298.45
ii. National consultants	159.71
b. Out-of-pocket expenditures	
i. International and local travel	39.14
ii. Reports and communications	1.90
iii. Others <sup>b</sup>	3.80
3. Resource Persons	
i. International consultants	48.28
ii. National consultants	18.09
4. Training, seminars, and conferences	200.00
5. Contingencies	30.63
<b>Total</b>	<b>1,000.00</b>

Note: The technical assistance (TA) is estimated to cost \$1,100,000, of which contributions from the Asian Development Bank are presented in the table. The government will provide in-kind support in the form of data, staff time, and meeting and event venues; review of recommendations and tools provided by the consultants; and participation in trainings, workshops, and knowledge sessions. The value of the government contribution is estimated to account for 10% of the total TA cost.

<sup>a</sup> Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF 7).

<sup>b</sup> Expenditure under this category would include insurance, miscellaneous administration, and support expenses.

<sup>c</sup> Includes local trainings, workshops, consultation meetings and focus group discussions of livelihood beneficiaries, farmers, WMGs and WMOs, BWDB, and project staff.

Source: Asian Development Bank estimates.

## LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/LinkedDocs/?id=34418-024-TARreport>

1. Southwest Area Integrated Water Resources Planning and Management–Additional Financing: Report and Recommendation of the President
2. Terms of Reference for Consultants