



# Technical Assistance Report

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Project Number: 53237-002  
Transaction Technical Assistance (TRTA)  
December 2019

## People's Republic of Bangladesh: Preparing the Climate and Disaster Resilient Small-Scale Water Resources Management Project

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Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 13 November 2019)

Currency unit	–	taka (Tk)
Tk1.00	=	\$0.0118
\$1.00	=	Tk84.81

## ABBREVIATIONS

ADB	–	Asian Development Bank
IFAD	–	International Fund for Agricultural Development
LGED	–	Local Government Engineering Department
QCBS	–	quality- and cost-based selection
TRTA	–	transaction technical assistance
WMCA	–	water management cooperative association

## NOTE

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: 53237-002</b>	
<b>Project Name</b>	Climate and Disaster Resilient Small-Scale Water Resources Management Project	<b>Department/Division</b>	SARD/SAER
<b>Nature of Activity</b>	Project Preparation	<b>Executing Agency</b>	Asian Development Bank, Local Government Engineering Department
<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		0.10
	Irrigation		0.10
	Rural flood protection		0.18
	Rural market infrastructure		0.08
	Rural water policy, institutional and capacity development		0.05
	<b>Total</b>		<b>0.51</b>
<b>3. Operational Priorities</b>		<b>Climate Change Information</b>	
✓ Addressing remaining poverty and reducing inequalities		Climate Change impact on the Project	Low
✓ Accelerating progress in gender equality			
✓ Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability			
✓ Promoting rural development and food security			
✓ Strengthening governance and institutional capacity			
<b>Sustainable Development Goals</b>		<b>Gender Equity and Mainstreaming</b>	
SDG 1.5, 1.b		Effective gender mainstreaming (EGM)	✓
SDG 2.3, 2.4			
SDG 6.4, 6.5, 6.b		<b>Poverty Targeting</b>	
SDG 9.1		General Intervention on Poverty	✓
<b>4. Risk Categorization</b>	Low		
<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>0.50</b>	
Transaction technical assistance: Technical Assistance Special Fund		0.50	
<b>Cofinancing</b>		<b>0.75</b>	
Water Financing Partnership Facility-NET TF (Full ADB Administration)		0.75	
<b>Counterpart</b>		<b>0.00</b>	
None		0.00	
<b>Total</b>		<b>1.25</b>	
Currency of ADB Financing: US Dollar			

## I. THE ENSUING PROJECT

1. The transaction technical assistance (TA) will prepare the proposed Climate and Disaster Resilient Small-Scale Water Resources Management Project. The project will improve agricultural productivity and profitability through effective, participatory, and sustainable small-scale water resources management within the selected geographic areas.<sup>1</sup> The project will support the small-scale water resources subsector by (i) drawing lessons from previous investments, (ii) incorporating climate and disaster resilience features in infrastructure and facilities, (iii) promoting climate and disaster tolerant crops and cropping practices, and (iv) introducing agricultural value chains.<sup>2</sup>
2. Subject to confirmation during the feasibility study, the project will provide investment support for approximately 150 new subprojects and 400 enhancement subprojects, and the following outputs and interventions.<sup>3</sup>
3. Output 1: participatory subproject development improved will (i) create 150 new water management cooperative associations (WMCAs); (ii) support their skills development for efficient use of water management infrastructure, including climate and disaster resilience aspects, and gender and social inclusion; (iii) support WMCAs' income-generating activities other than agriculture by promoting training and capacity development for civil works monitoring, preparing operation and maintenance manuals, undertaking minor routine maintenance of infrastructure, and effectively using WMCA operation and maintenance funds.
4. Output 2: small-scale water resources infrastructure with climate and disaster resilient features developed or enhanced will (i) develop 150 new subprojects with climate and disaster resilient features; and (ii) enhance about 400 (out of 845) existing WMCAs' infrastructure with climate and disaster resilient features to improve the system functionality by maximizing benefits through adaptive low-cost investments. Interventions with overall emphasis on climate proofing and climate-smart investment and promoting adaptation and disaster resilience will focus on (i) flood and drought management; (ii) drainage improvement; and (iii) existing irrigation systems improvement.
5. Output 3: Upazila- and WMCA-level value chain enhanced will (i) increase the income of WMCAs by developing market-driven agricultural production; and (ii) build and operationalize post-harvest management infrastructure such as processing and storage facilities, packing houses, and cold chains at Upazila- and WMCA-levels.
6. These outputs will result in the following outcome: climate resilient agricultural productivity and profitability in selected geographic areas increased. The project is aligned with the following impact: food security and rural livelihoods resilience to climate change-induced disasters amongst

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<sup>1</sup> "Small-scale" in the context of the project is less than 1,000 hectares of net beneficiary area. The project is proposed for implementation in four broad areas prone to climate and natural hazards risks: (i) the Barind and drought prone areas; (ii) the coastal zone; (iii) the Haor and flash flood areas; and (iv) the river systems and estuaries.

<sup>2</sup> From 1996 to 2002, the Local Government Engineering Department in the Local Government Division of the Ministry of Local Government, Rural Development and Cooperatives implemented the first Small-Scale Water Resources Development Sector Project financed by ADB, the Netherlands, and the International Fund for Agricultural Development (IFAD) which developed 280 subprojects. From 2002 to 2010, the second Small-Scale Water Resources Development Sector Project, financed by ADB, and the Netherlands, developed an additional 300 subprojects. The third phase, Participatory Small-Scale Water Resources Sector Project financed by ADB, the Netherlands, and IFAD, from 2010 to 2017, developed 265 new subprojects, enhanced performance of 148 existing ones, and introduced important elements of sustainability and poverty reduction through stakeholder-driven water resources management systems with special attention to the poorer population.

<sup>3</sup> Enhancement subprojects will be selected among the 845 existing subprojects.

project beneficiaries increased.<sup>4</sup> The country operations business plan for Bangladesh, 2020–2022 includes an investment loan amounting to \$100 million from ADB’s concessional ordinary capital resources for Board consideration in 2020.<sup>5</sup>

## II. THE TECHNICAL ASSISTANCE

### A. Justification

7. The proposed TA is required to assist the government in preparing the project concept to feasibility level and meet project readiness criteria. The TA will be developed through the following approach: (i) sector issues, constraints, and development potentials will be assessed; (ii) a list of potential new subprojects will be drawn; (iii) feasibility studies and associated due diligence will be prepared for 30 subprojects representative of the diversities of the project area ; (iv) feasibility proposals will be validated through participatory field visits for 100 enhancement subprojects to improve operating performance, agricultural production and productivity, resilience to climate change and disaster, and add value chain to farm produce. The objectives of the TA are to prepare (i) the project feasibility study report, including procedures to identify subprojects; and (ii) the draft loan processing documents for ADB Board consideration, including the gender related and safeguard documents in accordance with ADB’s Safeguards Policy Statement, 2009. The TA will also provide advance action support to the executing agency to enhance project readiness, such as advance procurement of civil work packages and recruitment of consultants.

### B. Outputs and Activities

8. The major outputs and activities are summarized in Table 1.

**Table 1: Summary of Major Outputs and Activities**

Major Outputs	Delivery Dates	Key Activities with Milestones
1. Relevant policy and regulatory frameworks assessed and proposal for improvements identified	1.1 Feb 2020	1.1 Review policy, regulatory frameworks, government’s development plans and strategies related to management of water and agricultural sectors, climate change, disaster risk management, and in particular small-scale water resources and agricultural marketing.
	1.2 Feb 2020	1.2 Assess the conformity of the proposed project with the government’s overall sector policies, strategies, and institutional and fiscal arrangements.
	1.3 Feb 2020	1.3 Assess the adequacy of the water sector policy and regulatory frameworks and institutional arrangements for the development of small-scale water resources subsector.
	1.4 Feb 2020	1.4 Assess the adequacy of the agricultural sector policy, regulatory frameworks and institutional arrangements to enhance agricultural market information and analysis system.
	1.5 Feb 2020	1.5 Recommend any specific needs for changes/adjustments to the policy/regulatory frameworks/institutional arrangements to enhance sustainability of subsector development, including increasing resilience to climate change and disasters triggered by natural hazards.
2. Agricultural market analysis	2.1 Mar 2020	2.1 Develop criteria for selecting key commodity value chains to be supported by the project.

<sup>4</sup> Government of Bangladesh, Planning Commission. 2015. *The Seventh Five Year Plan: FY2016–FY2020*. Dhaka.

<sup>5</sup> ADB. 2019. *Country Operations Business Plan: Bangladesh, 2020–2022*. Manila.

Major Outputs	Delivery Dates	Key Activities with Milestones
conducted to select key commodities and value chain analysis for key commodities prepared	2.2 Mar 2020	2.2 Research and analyze agribusiness opportunities and challenges, including supply and demand, competition, trade, profitability of agricultural, horticultural, livestock and fisheries products for smallholders, transport network, infrastructure gaps based on key commodity selection criteria.
	2.3 Mar 2020	2.3 Propose potential commodities for the value chain analysis based on the agricultural market analysis.
	2.4 Apr 2020	2.4 Undertake value chain assessment for key commodities and identify constrains and opportunities to improve efficiencies.
3. Subprojects selected, and feasibility of representative sample sub-projects appraised	3.1 Mar 2020	3.1 Prepare subprojects typology and selection criteria.
	3.2 Apr 2020	3.2 Prepare comprehensive list of specific measures and best practices related to climate proofing, climate-smart, and disaster risk to be integrated into the subprojects to enhance resilience, and prepare climate and disaster risk assessments of existing and planned infrastructure.
	3.3 Apr 2020	3.3 Select sample subprojects for TA appraisal (30 new and 100 enhancement subprojects) and propose long list of other subprojects to be considered under the project.
	May 2020	3.4 For the selected new subprojects: <ul style="list-style-type: none"> <li>• Carry out participatory rural appraisals.</li> <li>• Assess interest, motivation, and skills to form an effective WMCA that could participate in subproject development.</li> </ul>
	May 2020	
	May 2020	<ul style="list-style-type: none"> <li>• Assess opportunities for better management of land and water resources for higher farm income with interventions, on a prima facie basis, technically feasible and economically viable, including resilience aspects.</li> <li>• Assess opportunities for farmer group-based businesses and value chain engagement.</li> </ul>
	May 2020	
	Jul 2020	<ul style="list-style-type: none"> <li>• Carry out feasibility study of economically viable subprojects, including technical, economic, financial and social due diligence, and best practices on high value crop production and climate and disaster resilience.</li> </ul>
	Jun 2020	3.5 For each of the enhancement subprojects: <ul style="list-style-type: none"> <li>• Validate technical feasibility proposals through participatory field visits.</li> <li>• Assess works, institutional gaps and supports needed to integrate climate and disaster resilience in proposals.</li> <li>• Conduct an analysis of incremental benefits.</li> </ul>
Jun 2020		
Jul 2020		
4. Draft loan documentation produced, and project implementation start-up facilitated	4.1 Aug 2020	4.1 Prepare financial due diligence documents, including financial management assessment of the executive agency and implementation agencies.
	4.2 Jul 2020	4.2 Prepare bid documents for each sample subproject.
	4.3 Jul 2020	4.3 Draft the government development project proposal.
	4.4 Aug 2020	4.4 Assist in preparation of loan documentation.

TA = technical assistance, WMCA = water management cooperative associations.

Source: Asian Development Bank.

### C. Cost and Financing

9. The TA is estimated to cost \$1,250,000, of which \$500,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF 6) and \$750,000 will be financed on a grant basis from the Netherlands Trust Fund under the Water Financing Partnership Facility. The government will provide counterpart support in the form of counterpart staff, office

accommodation, and other in-kind contributions. The government was informed that approval of the TA does not commit ADB to finance any ensuing project. The key expenditure items are listed in Appendix 1.

#### D. Implementation Arrangements

10. ADB will administer the TA and will be responsible for selection, supervision, and evaluation of consultants. The implementation arrangements are summarized in Table 2.

**Table 2: Implementation Arrangements**

Aspects	Arrangements		
Indicative implementation period	January 2020–November 2020		
Executing agency	LGED		
Implementing agency	ADB through the South Asia Department		
Consultants	To be selected and engaged by ADB		
	QCBS with a quality-cost ratio of 90:10	International: 17 person-months National: 37 person-months	\$973,300
	ICS	International: 5 person-months National: 14 person-months	\$276,700
Procurement	To be procured by the consultancy firm		
	Request for quotations	Multiple contracts	\$100,000
Advance contracting and retroactive financing	Advance contracting will be undertaken for this TA for consultant firm and individual consultant recruitments.		
Disbursement	The TA resources will be disbursed in accordance with ADB's <i>Technical Assistance Disbursement Handbook</i> (2010, as amended from time to time).		
Asset turnover or disposal arrangement upon TA completion	Equipment purchased with ADB financing will be handed over to the government upon completion of the TA.		

ADB = Asian Development Bank, ICS = individual consultant selection, LGED = Local Government Engineering Department, QCBS = quality- and cost-based selection, TA = technical assistance.

Source: Asian Development Bank estimates.

11. IFAD, a long-standing partner of ADB during previous phases of small-scale water resources sector project in Bangladesh, expressed interest in cofinancing the proposed project. To enhance joint project design, IFAD will provide additional consultant support to the TA team.<sup>6</sup> The TA team and IFAD consultants will work jointly with clear understanding of shared responsibilities and outputs.

12. **Consulting services.** ADB will engage the consultants following the ADB Procurement Policy (2017, as amended from time to time) and its associated project administration instructions and/or staff instructions.<sup>7</sup> The consultants will procure (i) computers, printers, and other office equipment; (ii) participatory rural appraisals survey; (iii) topographic survey; and (iv) geotechnical investigations survey.

<sup>6</sup> The TA team will comprise a consulting firm and independent consultants engaged by ADB. IFAD will provide especially for the preparation of output 3 consultant support with expertise in (i) agriculture and agronomy, including food safety; (ii) rural financial services; and (iii) social and poverty issues.

<sup>7</sup> Terms of Reference for Consultants (accessible from the list of linked documents in Appendix 2).

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

Item	Amount		
	ADB <sup>a</sup>	External Source <sup>b</sup>	Total
A. Consultants			
1. Remuneration and per diem			
a. International consultants	232.4	348.5	580.9
b. National consultants	132.8	199.1	331.9
2. Out-of-pocket expenditures			
a. International travel	19.2	28.8	48.0
b. Local travel <sup>c</sup>	19.6	29.4	49.0
c. Reports and communications	2.0	3.0	5.0
d. Goods <sup>d</sup>	3.2	4.8	8.0
e. Miscellaneous administration and support costs	3.0	4.5	7.5
B. Surveys and Studies <sup>e</sup>	40.0	60.0	100.0
C. Workshops / Seminars <sup>f</sup>	8.8	13.2	22.0
D. Contingencies	39.0	58.7	97.7
<b>Total</b>	<b>500.0</b>	<b>750.0</b>	<b>1,250.0</b>

Note: The technical assistance is estimated to cost \$1,250,000, of which contributions from the Asian Development Bank and the Netherlands Trust Fund under the Water Financing Partnership Facility are presented in the table above. The government will provide counterpart support in the form of counterpart staff and their operating costs, office accommodation, and other in-kind contributions. The value of the government contribution is estimated to account for 5.7% of the total TA cost.

<sup>a</sup> Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF 6).

<sup>b</sup> Netherlands Trust Fund under the Water Financing Partnership Facility. Administered by the Asian Development Bank. Funds will be disbursed on a pro-rata basis.

<sup>c</sup> Includes local airfares and vehicle rental and operation.

<sup>d</sup> Includes computers, printers, and other office equipment. Equipment purchased with ADB financing will be handed over to the government upon completion of the technical assistance.

<sup>e</sup> Includes participatory rural appraisals surveys which may be subcontracted by the TA consultant. It is estimated that participatory rural appraisals will be undertaken by 10 teams each comprising of water resources, environment, social and gender experts, and that each team can carry out 2 subprojects within a month (field visit, deliverables preparation, submission and discussions).

<sup>f</sup> Includes workshops on inception, interim, and draft final reports.

Source: Asian Development Bank estimates.

**LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/LinkedDocs/?id=53237-002-TARreport>

1. Terms of Reference for Consultants