

# Project Administration Manual

Project Number: 52174-001  
Grant Numbers: {GXXXX; TXXXX}  
June 2018

The People's Republic of Bangladesh: Emergency  
Assistance Project

## ABBREVIATIONS

ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
BREB	–	Bangladesh Rural Electrification Board
CPD	–	Client Portal for Disbursement
DC	–	Deputy Commissioner
DMF	–	Design and Monitoring Framework
DPHE	–	Department of Public Health Engineering
DPP	–	Development Project Proposal
EARF	–	Environment Assessment Review Framework
EMP	–	Environment Management Plan
ERD	–	Economic Relations Division
EOI	–	Expression of Interests
FAPAD	–	Foreign Aided Projects Audit Directorate
FMA	–	Financial Management Assessment
GESI	–	Gender Equality and Social Inclusion
GOB	–	Government of Bangladesh
IEE	–	Initial Environmental Examination
kV	–	kilo Volt
LCB	–	Limited Competitive Bidding
LGED	–	Local Government Engineering Department
NGO	–	Non-Government Organizations
OCB	–	Open Competitive Bidding
PAM	–	Project Administration Manual
PD	–	Project Directors
PIU	–	Project Implementation Unit
PMU	–	project management unit
QCBS	–	Quality and Cost Based Selection
RFQ	–	Requests for Quotation
RHD	–	Roads and Highway Department
RP	–	Resettlement Plan
RRRC	–	Refugees Relief and Repatriation Commission
SOE	–	Statement of Expenditures
TA	–	Technical Assistance
MVA	–	Megavolt Ampere
UN	–	United Nations
WB	–	World Bank

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## **Project Administration Manual Purpose and Process**

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with the policies and procedures of the government and Asian Development Bank (ADB). The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The executing and implementing agencies are wholly responsible for the implementation of ADB-financed projects, as agreed jointly between the borrower and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible for supporting implementation including compliance by executing and implementing agencies of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At grant negotiations, the borrower and ADB shall agree to the PAM and ensure consistency with the grant<sup>a</sup> agreement. Such agreement shall be reflected in the minutes of the grant negotiations. In the event of any discrepancy or contradiction between the PAM and the grant agreement, the provisions of the grant agreement shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP), changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the Staff Instructions) and upon such approval, they will be subsequently incorporated in the PAM.

Various terminology is used in media, official and unofficial documents to describe the affected people. Terminology used herein is intended solely to identify such people for the purposes of this paper, and not to assert any view regarding the manner or circumstances of such persons' displacement. Such terminology may not reflect the terminology used or accepted by any government or any agency thereof. ADB expresses no view and takes no position herein regarding the legal rights or political assertions or the characterization of any such persons.

<sup>a</sup> The name of the operational financing document may vary on a project-to-project basis; this reference shall be deemed to encompass such variations, e.g., a Framework Financing Agreement, as applicable

## I. PROJECT DESCRIPTION

### A. Rationale

1. Since August 2017, Bangladesh has received more than 700,000 displaced persons from Myanmar (displaced persons).<sup>1</sup> These displaced persons, which mostly reached Bangladesh by crossing the nearby border on foot, joined about 400,000 other displaced persons who had arrived in waves from Rahkine State earlier.<sup>2</sup> The vast majority of displaced persons who have arrived in Bangladesh are living in 32 camps in Coxsbazar District, with more than 600,000 living in the Kutupalong–Balukhali mega camp. The large influx of displaced persons has caused a huge strain on the local people, infrastructure, and economy. The 2:1 ratio of displaced persons to the local population poses significant challenges to the food supply, shelter, health, sanitation, water, and other essential services. Although UN agencies and other donors are providing humanitarian relief such as food, water, medical aid, and temporary shelter, the existing services are stretched, and large gaps remain.<sup>3</sup>

2. On 7 May 2018, the Government of Bangladesh requested the Asian Development Bank (ADB) for grant support to provide high-priority basic infrastructure and essential services to help address the humanitarian crisis caused by the arrival of the displaced persons. The project meets the requirements for emergency assistance financing.<sup>4</sup>

3. The proposed Emergency Assistance Project will support the Government of Bangladesh in addressing the immediate and urgent needs of the displaced persons in Coxsbazar District, as identified by the United Nations (UN) in its Joint Response Plan (JRP) (footnote 1). The project will mainly support the improvement of water supply and sanitation, disaster risk management, sustainable energy supply, and access roads.

4. Given the urgent need to provide basic infrastructure services to the displaced persons, ADB proposes grant financing of \$100 million for investments that will help with the immediate needs of the displaced persons, with the possibility of additional financing of up to \$100 million in a second phase. The scope and timing of the second phase of support would be subject to the progress of the first phase, an assessment of needs, and the availability of additional grant funds, among other factors.

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<sup>1</sup> UN, Strategic Executive Group. 2018. *2018 JRP for Rohingya Humanitarian Crisis, March–December 2018*. Cox's Bazar. Various terminology is used in media, official and unofficial documents to describe the affected people. Terminology used herein is intended solely to identify such people for the purposes of this paper, and not to assert any view regarding the manner or circumstances of such persons' displacement. Such terminology may not reflect the terminology used or accepted by any government or any agency thereof. ADB expresses no view and takes no position herein regarding the legal rights or political assertions or the characterization of any such persons. The use of the term "displaced persons" in this paper is not intended to have the same meaning as the term "displaced persons" defined in ADB's Safeguard Policy Statement (2009).

<sup>2</sup> ADB. 2004. *Disaster and Emergency Assistance Policy*. Manila. Under the policy, in addition to natural events, disasters may be caused by conflict, including regional conflicts. The policy further provides that an emergency occurs after a disaster when unforeseen circumstances require immediate action; and that emergencies may involve, among other things, displacement of people, disease, food insecurity, and reduced public safety and security. All these circumstances and factors are present in this case.

<sup>3</sup> UN, Strategic Executive Group. 2018. *2018 JRP for Rohingya Humanitarian Crisis, March–December 2018*. Cox's Bazar.

<sup>4</sup> The project meets the five eligibility criteria for an emergency assistance loan, as well as the six characteristics of an emergency assistance loan, as defined in ADB. 2015. Staff Instruction on Processing and Administration of Emergency Assistance Loans. *Compendium of Staff Instructions*. Manila.

## B. Impact and Outcome

5. The project is aligned with the following impact: social recovery of displaced persons in Teknaf and Ukhia camps accelerated. The project will have the following outcome: living conditions and the resilience of displaced persons improved (footnote 5). The project will directly benefit the lives of people in camps while indirectly co-benefitting host communities in some instances. ADB is cognizant of sensitivities and potential conflicts among and within affected communities. These will be addressed through a gender- and socially-inclusive approach, among others.

6. **Outputs.** The project has the following four outputs:

- (i) **Water supply and sanitation improved.** This consists of providing the camp areas with (i) mobile water carriers for the distribution of treated water; (ii) community bathing facilities for women; (iii) mini piped water supply systems with a production tube well, distribution pipe network, and standpipe water distribution points; (iv) an integrated waste management facility with collection system; and (v) small surface water treatment plants.
- (ii) **Disaster risk management strengthened.** This includes constructing in and around the camp areas (i) multipurpose cyclone shelters with emergency access roads, (ii) food distribution centers, (iii) hill slope protection and/or toe walls to resist landslides, and (iv) storm water drainage networks. The project will also provide lightning arresters and support the preparation of a gender-sensitive disaster risk management plans with community-based disaster risk reduction approach.
- (iii) **Energy sources provided.** This includes providing the camp areas with (i) retained heat cookers; (ii) stand-alone solar powered street lights with solar photovoltaic panels, battery boxes, and mini grid-connected street lights; and (iii) access to electricity by augmenting substations, distribution lines, and transformers.
- (iv) **Access roads improved.** This consists of rehabilitating (i) rural roads to connect to food storage and distribution centers, field hospitals, primary health care centers, and primary education centers; (ii) emergency access roads to the camp areas; and (iii) existing access roads to and within the camps and drainage systems. The project also supports resurfacing the road from Coxsbazar to Teknaf, which is the main supply line.

7. **Subprojects.** ADB will apply a sector lending approach in selecting an investment under each of the outputs. Within the JRP framework, ADB will prioritize subprojects for development and implementation to optimize the available resources in close coordination with the government and development partners. Each subproject will be subject to ADB's prior approval based on the following selection criteria:

- (i) direct impact on the lives of the international displaced persons in the camp areas,
- (ii) no or minimal land acquisition or acquisition of government land,
- (iii) compliance with ADB's safeguards requirements and no activities inside critical habitats and protected areas,
- (iv) no duplication of activities funded by other donors,
- (v) implementation period not extending beyond the project closing date, and
- (vi) inclusion of feedback from a beneficiary consultation process.

8. Detailed subproject selection criteria and indicative list of potential subprojects are in Appendix 1.

### C. Development Partner Coordination

9. ADB would ensure that there is no duplication with other development partners through its Bangladesh Resident Mission, which is coordinating closely with the Local Consultative Group, UN agencies, and the World Bank. The Strategy Executive Group led by the UN High Commissioner for Refugees, the UN Resident Coordinator (UNRC), and the International Organization for Migration in Dhaka and the ISCG and RRRC in Coxsbazar are coordinating with the donors. The National Task Force is the government's highest coordination body constituted by a cabinet decision comprising of 37 ministries and agencies, with the secretariat in Ministry of Foreign Affairs. Details are in Emergency Assistance Coordination linked document.

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

**Table 1: Project Readiness Activities**

Indicative Activities	2018/Months						Responsible Agencies/Government
	June	July	Aug	Sept	Oct	Nov	
Advance contracting actions		X					LGED, DPHE, RHD and BREB
Retroactive financing actions		X					LGED, DPHE, RHD and BREB
Establish project implementation arrangements	X						LGED, DPHE, RHD and BREB
ADB Board approval		X					ADB
Grant signing		X					ERD and ADB
Government legal opinion provided		X					ERD
Government budget inclusion		X					Finance Division and related ministries and agencies
Grant effectiveness			X				ERD and ADB

ADB = Asian Development Bank, BREB = Bangladesh Rural Electrification Board, DPHE = Department of Public Health Engineering, ERD = Economic Relations Division, LGED = Local Government Engineering Department; RHD = Roads and Highway Department.

Source: Asian Development Bank.





S. N.	Activities	2018				2019				2020				2021												
		Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
<b>A</b>	<b>DMF</b>																									
	<b>Output 4: Transport and logistics facilities into and within camps</b>																									
4a	Rural roads to connect food storage centers, food distribution centers, field hospitals, primary health care and education centers																									
4b	Emergency access roads to the camp area																									
4c	Existing access roads and drainage system within camps																									
4d	Resurfacing the road from Coxsbazar to Teknaf including improvement of critical sections to enhance movement of supplies																									
<b>B</b>	<b>Management Activities</b>																									
1	Procurement plan key activities to procure contract packages																									
2	Consultant selection procedures																									
3	Environment management plan key activities																									
4	Gender action plan key activities																									
5	Communication strategy key activities																									
6	Semi-annual and/or midterm review																									
7	Communication strategy key activities																									
8	Project completion report																									

DMF= design and monitoring framework.  
Source: Asian Development Bank.

### III. PROJECT MANAGEMENT ARRANGEMENTS

#### A. Project Implementation Organizations: Roles and Responsibilities

**Table 3: Project Implementation Organizations: Roles and Responsibilities**

<b>Project Implementation Organizations</b>	<b>Management Roles and Responsibilities</b>
Ministry of Finance, Economic Relations Division	<ul style="list-style-type: none"> <li>Will enter into the grant agreement with ADB;</li> </ul>
Ministry of Disaster Management and Relief	<ul style="list-style-type: none"> <li>Facilitate establishing a project coordination committee and provide guidance and supervision of project activities;</li> <li>Conduct quarterly meetings to review project progress;</li> <li>Review progress reports from all implementing agencies;</li> <li>Oversight for overall implementation of project.</li> </ul>
<p>Executing and Implementing Agencies</p> <p>1) Local Government Engineering Department (LGED); Local Government Division; Ministry of Local Government, Rural Development and Co-operatives <b>[Output 2 and Output 4]</b></p> <p>2) Roads and Highway Department (RHD); Road Transport and Highways Division; Ministry of Road Transport and Bridges <b>[Output 4]</b></p> <p>3) Bangladesh Rural Electrification Board (BREB); Power Division; Ministry of Power, Energy and Mineral Resources <b>[Output 3]</b></p> <p>4) Department of Public Health Engineering (DPHE); Local Government Division; Ministry of Local Government, Rural Development and Co-operatives <b>[Output 1]</b></p>	<ul style="list-style-type: none"> <li>Establish project implementation unit (PIU) headed by a project director; provision of procurement staff for efficient operation of the project management unit (PMU);</li> <li>Provide operational support and budget for project activities and PMU's activities;</li> <li>Higher level coordination with government and partner agencies for successful implementation of the project;</li> <li>Safeguards implementation;</li> <li>Monitoring and evaluation of project activities and outputs including periodic review;</li> <li>Dissemination of project activities and outputs;</li> <li>Quality assurance of project outputs;</li> <li>Provide progress reports to the coordination committee;</li> <li>Provide quarterly project progress, annual audit reports and others as required;</li> <li>Undertake day-to-day implementation activities;</li> <li>Supervise the project management and construction supervision consultants, and safeguards consultants;</li> <li>Prepare bid documents, manage the bidding process, submit to ADB for required clearances;</li> <li>Implement the project design, procurement and safeguards implementation activities.</li> </ul>
Project Coordination Committee	<ul style="list-style-type: none"> <li>Meets once every month;</li> <li>Provide all necessary guidance to expedite project development and implementation.</li> </ul>
Refugees Relief and Repatriation Commission (RRRC)	<ul style="list-style-type: none"> <li>Acts as a nodal agency for coordination at project site;</li> <li>Provide all necessary coordination among the stakeholders for smooth project implementation.</li> </ul>
ADB	<ul style="list-style-type: none"> <li>Undertake regular project reviews and facilitate in implementation of the project including the compliance by the executing and implementing agencies of obligations and responsibilities.</li> </ul>

ADB = Asian Development Bank; RRRC = Refugees Relief and Repatriation Commission.

Source: Asian Development Bank.

## B. Key Persons Involved in Implementation

### Executing Agency

Local Government Engineering  
Department, Ministry of Local  
Government, Rural Development  
and Cooperatives (MLGRDC)

Officer's Name: Md. Mahbub Alam  
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Bangla Nagar, Dhaka -1207

Department of Public Health  
Engineering; Ministry of Local  
Government, Rural Development  
and Cooperatives (MLGRDC);

Officer's Name: Md. Saifur Rahman  
Position: Superintending Engineer  
Telephone: +8801711-033115  
Email address: saifur@dphe.gov.bd

Office Address: DPHE Bahaban (4<sup>th</sup> floor) 14, Shahid  
Capt. Monsur Ali Sarani Kakrali, Dhaka – 1000,

Roads and Highway  
Department; Ministry of Road  
Transport and Bridges

Officer's Name: Md. Aftab Hossain Khan  
Position: Additional Chief Engineer  
Telephone:  
Email address: [acechi@rhd.gov.bd](mailto:acechi@rhd.gov.bd)  
Office Address: Sarak Bhaban, Agrabad,  
Chattogram - 4000

Bangladesh Rural Electrification  
Board; Ministry of Power, Energy  
and Mineral Resources

Officer's Name: Engr. Md. Abul Kashem Sarder  
Position: Superintendent Engineer  
Telephone: +8801711158017  
Email address  
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Khilkhhet, Dhaka - 1229

### Asian Development Bank

Bangladesh Resident Mission  
South Asia Department

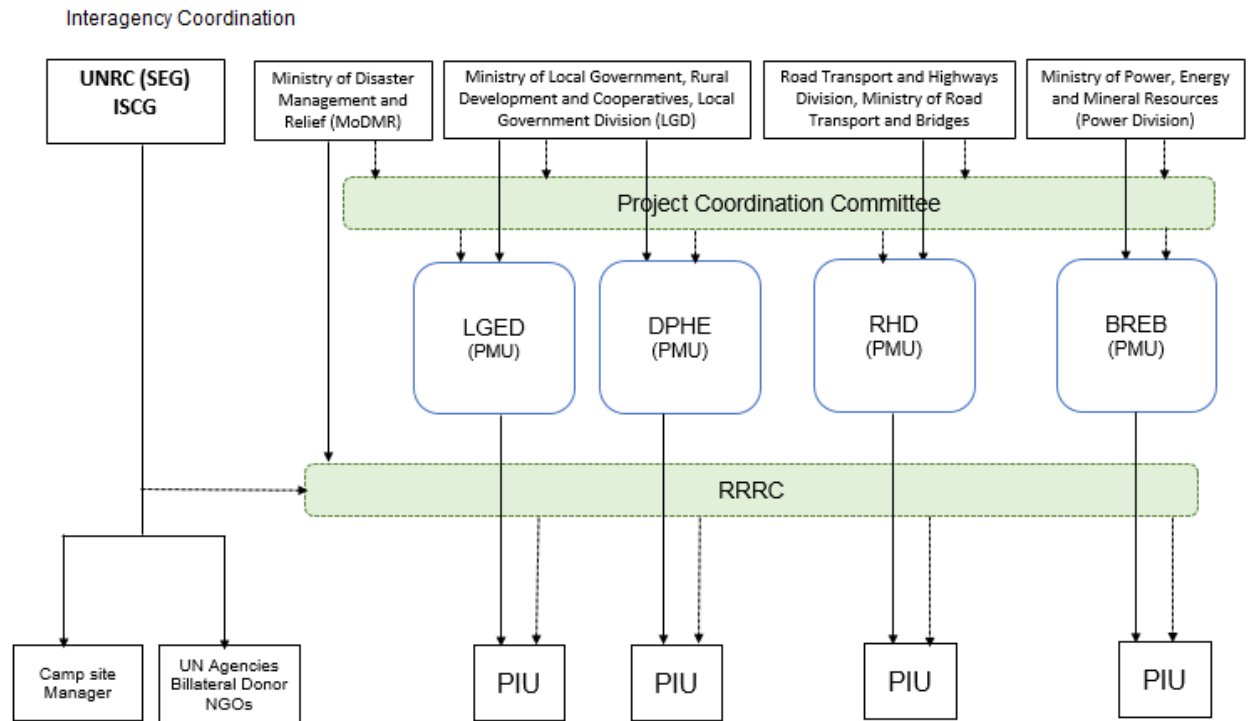
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## C. Project Organization Structure

**Figure 1: Project Organization Structure**



#### IV. COSTS AND FINANCING

10. The project is estimated to cost \$120 million (Table 4).

**Table 4: Summary Cost Estimates<sup>5</sup>**  
(\$ million)

Item	Amount <sup>a</sup>
<b>A. Base Cost<sup>b</sup></b>	
1. Water supply and sanitation	43.0
2. Disaster risk management	21.0
3. Energy sources	9.0
4. Access roads	37.0
<b>Subtotal (A)</b>	<b>110.0</b>
<b>B. Contingencies<sup>c</sup></b>	<b>10.0</b>
<b>Total (A+B)</b>	<b>120.00</b>

<sup>a</sup> Includes taxes and duties of \$15 million to be financed by the government from the project counterpart funding by cash contribution. Government will bear the cost of institutional support that include – cost towards staff for project management.

<sup>b</sup> In mid-2018 prices as of 31 May 2018. Estimates may change once the development project proposals are prepared.

<sup>c</sup> Physical contingencies computed at 6-10% for all cost categories. Price contingencies computed at average of 1.5% on foreign exchange costs and 6.3% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Sources. Asian Development Bank.

11. The government has requested a special grant equivalent to \$100 million to help finance the project.<sup>6</sup> The grant will finance (i) civil works, equipment, and consulting services; and (ii) capacity building. The government will provide \$20 million equivalent to cover (i) taxes and duties, (ii) any land acquisition, and (iii) project management and/or counterpart staff. ADB grant will finance up to 100% of eligible expenditures for civil works, supply of goods and equipment, consulting services, exclusive of taxes and duties imposed within the territory of Bangladesh. The summary of financing plan is in Table 5.

**Table 5: Summary Financing Plan**

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Special Funds resources (Asian Development Fund grant)	100.0	83.3
Government of Bangladesh <sup>a</sup>	20.0	16.7
<b>Total</b>	<b>120.00</b>	<b>100.00</b>

<sup>a</sup> Government contribution is towards taxes and duties, land acquisition if any, and in-kind support.

Source: Asian Development Bank.

#### A. Cost Estimates Preparation and Revisions

12. Cost estimates were obtained from the respective executing and implementing agencies for all four outputs. They are taken based on the costs of similar projects executed in the recent pasts and the ongoing approved scheduled rates. However, more detailed cost estimates with

<sup>5</sup> All cost estimates allocation in the PAM are approximate only. They will be updated as the subprojects are finalized.

<sup>6</sup> The provision of a grant to Bangladesh from the Asian Development Bank (ADB) Special Fund resources (Asian Development Fund [ADF]) for the project is subject to the Board's approval of a separate proposal (submitted in parallel to this paper) waiving provisions of applicable ADB policies that would otherwise prohibit such grant support. Prior to submission of this proposal to the Board, ADF donors endorsed the allocation of \$100 million in ADF resources to provide special grant support to Bangladesh for the project.

higher accuracy will be prepared during the preparation of Development Project Proposals (DPP), for approval by the Planning Ministry and Executive Committee of the National Economic Council. The EAs will make the revision of DPP and submit for approval if any changes in the cost estimates arise due to changes in project scope or other unforeseen reasons during the project implementation. DPPs are expected to be completed by end of third quarter 2018.

## B. Key Assumptions

13. The following key assumptions underpin the cost estimates and financing plan:
- (i) Exchange rate: Tk83.70 = \$1.00 (as of 05 June 2018).
  - (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

**Table 6: Escalation Rates for Price Contingency Calculation**

<b>Item</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>Average</b>
Foreign rate of price inflation	1.5%	2.3%	3.8%	5.4%	6.9%	1.5%
Domestic rate of price inflation	6.3%	9.5%	16.4%	23.7%	31.5%	6.3%

Source: Asian Development Bank.

- (iii) In-kind contributions were not considered. However, any such contribution will be calculated based on the requirement and details as outlined in the DPPs.

### C. Detailed Cost Estimates by Expenditure Category

Table 7: Detailed Cost Estimate by Expenditure (*tentative*)

	<u>Tk million</u>			<u>\$ million</u>			Total Cost	% of Total Base Cost
	Local Currency	Foreign Currency	Total	Local Currency	Foreign Currency	Total		
<b>A. Investment Cost</b>								
Land Acquisition and Resettlement	420.0	-	420.0	5.0	-	5.0		4.6%
Environment	50.0	-	50.0	0.6	-	0.6		0.5%
Equipment	112.4	832.8	945.2	1.3	10.0	11.3		10.3%
Civil Works	7,527.1	-	7,527.1	89.9	-	89.9		81.7%
Consulting Services - Project Impl.	201.9	-	201.9	2.4	-	2.4		2.2%
Consulting Services - Capacity Dev.	-	-	-	-	-	-		0.0%
<b>Sub-total (A)</b>	<b>8,311.3</b>	<b>832.8</b>	<b>9,144.1</b>	<b>99.3</b>	<b>10.0</b>	<b>109.3</b>		<b>99.2%</b>
<b>B. Recurrent Costs</b>								
Project Management	71.0	-	71.0	0.9	-	0.9		0.8%
<b>Sub-total (B)</b>	<b>71.0</b>	<b>-</b>	<b>71.0</b>	<b>0.9</b>	<b>-</b>	<b>0.9</b>		
<b>Total Base Cost with Taxes</b>	<b>8,382.3</b>	<b>832.8</b>	<b>9,215.1</b>	<b>100.2</b>	<b>10.0</b>	<b>110.1</b>		<b>100.0%</b>
<b>C. Contingencies</b>								
Physical Contingency	584.6	60.3	644.9	7.0	0.7	7.7		7.0%
Price Contingency	176.6	36.0	212.6	2.1	0.4	2.5		2.3%
<b>Subtotal (C)</b>	<b>761.2</b>	<b>96.3</b>	<b>857.5</b>	<b>9.1</b>	<b>1.1</b>	<b>10.2</b>		<b>9.3%</b>
<b>Total Project Cost (A + B + C)</b>	<b>9,143.5</b>	<b>929.1</b>	<b>10,072.6</b>	<b>109.2</b>	<b>11.1</b>	<b>120.3</b>		<b>109.3%</b>

Tk = Bangladesh Taka.

Note: Numbers may not sum precisely because of rounding.

Sources: Asian Development Bank and executing agencies' estimates.



## D. Allocation and Withdrawal of Grant Proceeds

**Table 8: Allocation and Withdrawal of Grant Proceeds (tentative)**

Category	Amount Allocated for ADB financing (\$ million)	Percentage and Basis from Withdrawal from the Grant Account <sup>7</sup>
1 Equipment	10.00	100 % of total expenditure claimed*
2 Civil Works	78.00	100 % of total expenditure claimed*
3 Consulting Services – Project Implementation	2.00	100 % of total expenditure claimed*
4 Unallocated	10.00	
<b>Total</b>	<b>100.00</b>	

\* Exclusive of taxes and duties imposed within the territory of recipient

## E. Detailed Cost Estimates by Financier

**Table 9: Detailed Cost Estimates by Financier (tentative)**

Item	ADB		GOB		Total	% of Cost Category
	Amount	% of Cost Category	Amount	% of Cost Category		
<b>A. Investment Costs</b>						
Land Acquisition and Resettlement	0.0	0.0%	5.0	100.0%	5.0	4.2%
Environment	0.0	0.0%	0.6	100.0%	0.6	0.5%
Equipment	9.8	86.5%	1.5	13.5%	11.3	9.4%
Civil Works	77.8	86.5%	12.1	13.5%	89.9	74.7%
Consulting Services - Project Impl.	2.1	86.5%	0.3	13.5%	2.4	2.0%
Consulting Services - Capacity Dev.	0.0	100.0%	0.0		0.0	0.0%
<b>Subtotal (A)</b>	<b>89.6</b>		<b>19.6</b>		<b>109.3</b>	<b>90.8%</b>
<b>B. Recurrent Costs</b>						
Project Management	0.0	0.0%	0.9	100.0%	0.9	0.7%
<b>Subtotal (B)</b>	<b>0.0</b>		<b>0.9</b>		<b>0.9</b>	<b>0.7%</b>
<b>Total Base Cost</b>	<b>89.6</b>	<b>81.4%</b>	<b>20.5</b>	<b>18.6%</b>	<b>110.1</b>	<b>91.5%</b>
<b>C. Contingencies</b>						
Physical	7.7	100.0%	0.1	0.0%	7.7	6.4%
Price	2.5	100.0%	0.0	0.0%	2.5	2.1%
<b>Subtotal (C)</b>	<b>10.2</b>	<b>9.3%</b>	<b>0.1</b>	<b>0.1%</b>	<b>10.2</b>	<b>8.5%</b>
<b>Total Project Cost (A + B + C)</b>	<b>99.9</b>	<b>83.0%</b>	<b>20.6</b>	<b>17.0%</b>	<b>120.3</b>	<b>100.0%</b>

ADB = Asian Development Bank; ADF = Asian Development Fund; GOB = Government of Bangladesh

Source: Asian Development Bank.

<sup>7</sup> Disbursements up to 100% of eligible project costs are allowed under ADB's Disaster and Emergency Assistance Policy 2004.

## F. Detailed Cost Estimates by Outputs and/or Components

Table 10: Detailed Cost Estimates by Outputs and/or Components (*tentative*)

Item	Total Cost	Output 1		Output 2		Output 3		Output 4	
		Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category
<b>A. Investment Cost</b>									
Land Acquisition and Resettlement	5.0	4.3	85.0%	0.0	0.0%	-		0.8	15.0%
Environment	0.6	-	0.0%	0.0	0.0%	-	0.0%	0.6	100.0%
Equipment	11.3	2.6	23.1%	0.3	2.5%	8.4	0.0%	0.0	0.0%
Civil Works	89.9	36.0	40.0%	19.9	22.2%	-	0.6%	34.0	37.8%
Consulting Services - Project Impl.	2.4	-	0.0%	0.7	30.3%	0.6	23.7%	1.1	46.1%
Consulting Services - Capacity Dev.	-			0.0		-			
<b>Subtotal (A)</b>	<b>109.3</b>	<b>42.9</b>	<b>39.2%</b>	<b>20.9</b>	<b>19.2%</b>	<b>9.0</b>	<b>8.2%</b>	<b>36.5</b>	<b>33.4%</b>
<b>B. Recurrent Costs</b>									
Project Management	0.9	0.3	29.4%	0.2	23.5%	0.2	23.5%	0.2	23.5%
<b>Subtotal (B)</b>	<b>0.9</b>	<b>0.3</b>	<b>29.4%</b>	<b>0.2</b>	<b>23.5%</b>	<b>0.2</b>	<b>23.5%</b>	<b>0.2</b>	<b>23.5%</b>
<b>Total Base Cost with Taxes</b>	<b>110.1</b>	<b>43.1</b>	<b>39.2%</b>	<b>21.1</b>	<b>19.2%</b>	<b>9.2</b>	<b>8.3%</b>	<b>36.7</b>	<b>33.3%</b>
<b>C. Contingencies</b>									
Physical	7.7	3.0	39.1%	1.5	19.2%	0.6	8.3%	2.6	33.3%
Price	2.5	1.0	39.0%	0.5	19.3%	0.2	8.3%	0.9	33.5%
<b>Subtotal (C)</b>	<b>10.2</b>	<b>4.0</b>	<b>39.1%</b>	<b>2.0</b>	<b>19.3%</b>	<b>0.9</b>	<b>8.3%</b>	<b>3.4</b>	<b>33.3%</b>
<b>Total Project Cost (A + B + C)</b>	<b>120.3</b>	<b>47.1</b>	<b>39.2%</b>	<b>23.1</b>	<b>19.2%</b>	<b>10.0</b>	<b>8.3%</b>	<b>40.1</b>	<b>33.3%</b>

ADB = Asian Development Bank; ADF = Asian Development Fund; GOB = Government of Bangladesh.

Source: Asian Development Bank.

**G. Detailed Cost Estimates by Year****Table 11: Detailed Cost Estimates by Year (tentative)**

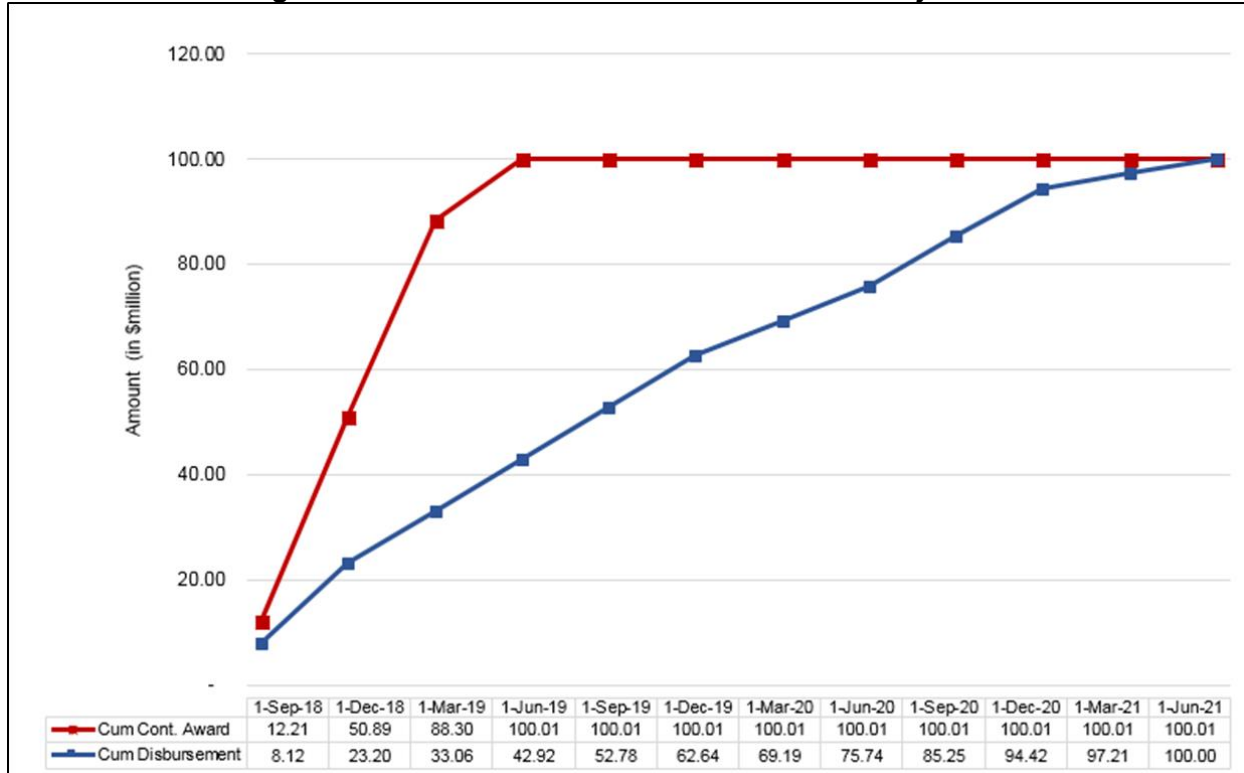
Item	Total	2018	2019	2020	2021
<b>A. Investment Costs</b>					
Land Acquisition and Resettlement	5.0	5.0	-	-	-
Environment	0.6	0.2	0.2	0.1	0.1
Equipment	11.3	2.8	4.5	2.8	1.1
Civil Works	89.9	22.5	36.0	22.5	9.0
Consulting Services - Project Impl.	2.4	0.6	1.0	0.6	0.2
Consulting Services - Capacity Dev.	-	-	-	-	-
<b>Subtotal (A)</b>	<b>109.2</b>	<b>31.1</b>	<b>41.7</b>	<b>26.0</b>	<b>10.4</b>
<b>B. Recurrent Costs</b>					
Project Management	0.8	0.2	0.3	0.2	0.1
<b>Subtotal (B)</b>	<b>0.8</b>	<b>0.2</b>	<b>0.3</b>	<b>0.2</b>	<b>0.1</b>
<b>Total Base Cost</b>	<b>110.1</b>	<b>31.3</b>	<b>42.0</b>	<b>26.2</b>	<b>10.5</b>
<b>C. Contingencies</b>					
Physical	7.7	2.3	2.9	1.8	0.7
Price	2.5				2.5
<b>Total Contingency</b>	<b>10.2</b>	<b>2.3</b>	<b>2.9</b>	<b>1.8</b>	<b>3.3</b>
<b>Total Project Cost (A + B + C)</b>	<b>120.3</b>	<b>33.6</b>	<b>44.9</b>	<b>28.0</b>	<b>13.8</b>
<b>% Total Project Cost</b>	<b>100.0%</b>	<b>27.9%</b>	<b>37.3%</b>	<b>23.3%</b>	<b>11.4%</b>

Source: Asian Development Bank.

**H. Contract and Disbursement S-Curve**

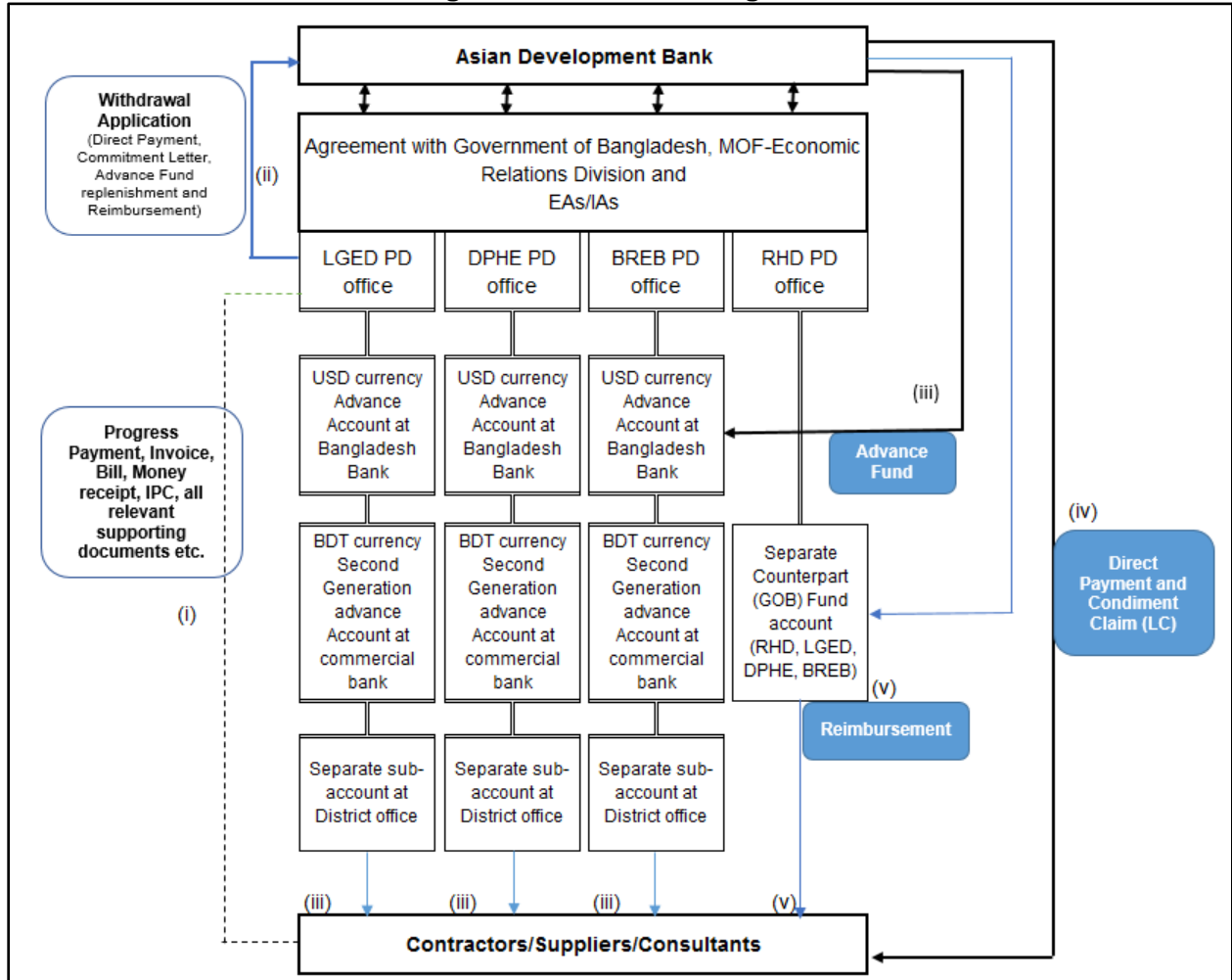
14. The projections for contract award and disbursement for the project are in Figure 2. The S-curve is only for the ADB financing which will be recorded in ADB’s systems through eOperations.

**Figure 2: Contract Award and Disbursement Projection**



I. Fund Flow Diagram

Figure 3: Fund Flow Diagram



AF = advance fund; BREB = Bangladesh Rural Electrification Board; CL = Commitment Letter; DP = direct payment; DPHE = Department of Public Health Engineering; EA = Executive Agency; IA = Implementing Agency; IPC = interim payment certificate; LGED = Local Government Engineering Department; LIQ = Liquidation; MOF = Ministry of Finance; RHD = Roads and Highways Department; RPL = Replenishment.

(i) Contractors/Suppliers and Consultants submit Progress Payment, Invoice, Bill, IPC and all supporting documents.

(ii) Executing and Implementing Agencies submit withdrawal application (DP, AF, RPL, LIQ and CL) with required supporting documents to ADB as per Loan Disbursement Handbook.

(iii) Advance Fund: ADB disburse to Bangladesh Bank project advanced account of LGED, DPHE and BREB in USD. Then the equivalent BDT amount transfer to second generation advance account and the amount again transfer to district office sub-account. Districts authorized official pay to contractors, suppliers and consultants.

(iv) Direct Payment and Condiment Claim (under CL): ADB disburse directly to contractors/suppliers and consultants.

(v) Reimbursement: ADB disburse to Counterpart (GOB) account.

-----> Documents Flow

————> Funds Flow

## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

15. An updated financial management assessment (FMA) was conducted for four implementing agencies in accordance with *ADB's Guidelines for the Financial Management and Analysis of Projects*<sup>8</sup> and *Financial Due Diligence: A Methodology Note*.<sup>9</sup> The FMA considered the capacity of the implementing agencies, including funds-flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements. The purpose of this updated FMA is to ensure that adequate financial management arrangements are in place for the proposed projects. The FMA draws on lessons learnt during the implementation of past and existing projects, various sector governance assessments, interviews with executing and implementing agencies, PMU and PIUs and other relevant government staff.

16. All four executing and implementing agencies of the project have experience in implementing ongoing ADB funded projects. The implementing agencies have established accounting, reporting and budgeting procedures in place in line with government regulations. However, the overall financial management risk is considered substantial, due to (i) risk of competent staff not assigned and trained on time; (ii) weak internal audit function; and (iii) lack of unified project reporting and monitoring system.

17. Based on the assessment, the key financial management risks identified are shown in Table 12.

**Table 12: Financial Management and Internal Control Risk Assessment**

Risk	Risk Assessment	Risk Description	Mitigation Measures or Action Plans
<b>Inherent Risk</b>			
1. Country-specific Risks	S	Overall PFM system continues have issues in control environment, fragmentation of budget.	ADB will continue dialogue with GOB to monitor PFM activities and provide necessary support to improve its PFM performance.
2. Entity-specific Risks	S	Multiple entities are responsible for the execution and implementation of this project.	A clear organizational structure will be prepared, specific terms of reference, and reporting and monitoring systems will be developed for PMU and PIU staff and the design and supervision consultants.
<b>Overall inherent risk: SUBSTANTIAL</b>			
<b>Control Risk - LGED</b>			
1. Implementing Entity	M	LGED has a good track record in implementing ADB funded projects.	A PMU and PIU with adequate staff will be established.

<sup>8</sup> ADB. 2005. *Financial Management and Analysis of Projects*. Manila

<sup>9</sup> ADB. 2009. *Financial Due Diligence A Methodology Note*. Manila

<b>Risk</b>	<b>Risk Assessment</b>	<b>Risk Description</b>	<b>Mitigation Measures or Action Plans</b>
2. Fund Flow	S	(i) Timely release of counterpart fund for the Project.  (ii) ADB advance fund might be used for unintended purpose at the field level.	(i) Firm commitment from the Ministry of Finance (MOF) for the timely release of counterpart part fund will reduce the risk of allocation and delayed release of funds. Direct payment mechanism is to be used for major foreign component payments for contractors and suppliers for ADB share.  (ii) LGED will give assurance that ADB fund will be separately administered and maintained from counterpart fund.  (iii) ADB reserves the right to randomly audit all the Project subaccounts.  (iv) Subaccounts are subject to external audits by Foreign Audited Project Audit Directorate (FAPAD) and Project internal audits.
3. Staffing	S	Competent finance and accounting staff dedicated for the project might not be assigned on time.	Government commitment and budget allocation for dedicated accounting staff in PMU and PIU with prior experience in ADB projects.
4. Accounting Policies and Procedures	M	Lack of well documented policies and procedures for the project.	Existing government policies and procedures are followed. The specific accounting and reporting procedures for the project will be established with support from FM expert under TA.
5. Internal Audit	S	LGED may not have sufficient resources to perform the internal audit function for this project.	LGED will give assurance that adequate internal audit staff will be assigned to this project.
6. External Audit	L	The audit of the project financial statements should be done in accordance with the International Standards on Auditing and by independent auditor acceptable to ADB.	The current arrangement of having the audit done by FAPAD of Comptroller and Auditor General (CAG) is acceptable to ADB. Implementing agencies need to ensure FAPAD audited report is submitted within 6 months from the fiscal year end.
7. Reporting and Monitoring	S	Reporting system is in place at the respective IA level. However, financial reporting arrangement will need to be set up for the project.	The financial reporting procedure and format to be developed with support from FM expert under the TA.

<b>Risk</b>	<b>Risk Assessment</b>	<b>Risk Description</b>	<b>Mitigation Measures or Action Plans</b>
8.Information Systems	L	LGED is currently using an adequate IT system.	Not applicable.
<b>Overall control risk (LGED): <i>SUBSTANTIAL</i></b>			
<b>Control Risk – DPHE</b>			
1. Implementing Entity	M	DPHE has a good track record in implementing ADB funded projects.	A PMU and PIU with adequate staff will be established.
2. Fund Flow	S	(i) Timely release of counterpart fund to the project.  (ii) ADB advance fund might be used for unintended purpose at the field level.	(i) Firm commitment from the MOF for the timely release of counterpart part fund will reduce the risk of allocation and delayed release of funds. Direct payment mechanism is to be used for major foreign component payments for contractors and suppliers for ADB share.  (ii) DPHE will give assurance that ADB fund will be separately administered and maintained from counterpart fund.  (iii) ADB reserves the right to randomly audit all project subaccounts.  (iv) Subaccounts are subject to external audits by FAPAD and project internal audits.
3. Staffing	S	Competent finance and accounting staff dedicated for the project might not be assigned on time.	Government commitment and budget allocation for dedicated accounting staff in PMU and PIU with prior experience in ADB projects.
4. Accounting Policies and Procedures	M	Lack of well documented policies and procedures for the project.	Existing government policies and procedures are followed. The specific accounting and reporting procedures for the project will be established with support from FM expert under TA.
5. Internal Audit	H	DPHE has no internal audit division. One accountant from the Office of the Controller and Auditor General is posted on a part-time basis for internal audit.	DPHE will give assurance that adequate internal audit staff will be assigned to this project.
6. External Audit	L	The audit of the project financial statements should be done in accordance with the International Standards on Auditing and by independent auditor acceptable to ADB.	The current arrangement of having the audit done by FAPAD of CAG is acceptable to ADB. Implementing agencies need to ensure FAPAD audited report is submitted within 6 months from the fiscal year end.



<b>Risk</b>	<b>Risk Assessment</b>	<b>Risk Description</b>	<b>Mitigation Measures or Action Plans</b>
7. Reporting and Monitoring	S	Reporting system is in place at the respective IA level. However, financial reporting arrangement will need to be set up for the project.	The financial reporting procedure and format to be developed with support from FM expert under the TA.
8. Information Systems		DPHE is currently using an adequate IT system.	Not applicable
<b>Overall control risk (DPHE): <i>SUBSTANTIAL</i></b>			
<b>Control Risk – RHD</b>			
1. Implementing Entity	M	RHD has a good track record in implementing ADB funded projects.	A PMU and PIU with adequate staff will be established.
2. Fund Flow	M	(i) Timely release of counterpart fund to the project.	(i) Firm commitment from the MOF for the timely release of counterpart part fund will reduce the risk of allocation and delayed release of funds. Direct payment mechanism is to be used for major foreign component payments for contractors and suppliers for ADB share.  (ii) All expenditures are subject to external audits by FAPAD.
3. Staffing	S	Competent finance and accounting staff dedicated for the project might not be assigned on time.	Government commitment and budget allocation for dedicated accounting staff in PMU and PIU with prior experience in ADB projects.
4. Accounting Policies and Procedures	M	Lack of well documented policies and procedures for the project.	Existing government policies and procedures are followed. The specific accounting and reporting procedures for the project will be established with support from FM expert under TA.
5. Internal Audit	S	RHD has no internal audit division. Pre-audit is done by the accounts officer before making any payments in the PIU.	RHD will give assurance that adequate internal audit staff will be assigned to this project.
6. External Audit	L	The audit of the project financial statements should be done in accordance with the International Standards on Auditing and by independent auditor acceptable to ADB.	The current arrangement of having the audit done by FAPAD of CAG is acceptable to ADB. Implementing agencies need to ensure FAPAD audited report is submitted within 6 months from the fiscal year end.
7. Reporting and Monitoring	S	Reporting system is in place at the respective IA level. However, financial reporting arrangement will need to be set up for the project.	The financial reporting procedure and format to be developed with support from FM expert under the TA.
8. Information Systems	M	RHD is not currently optimizing the use of technology in the finance and accounts wing for the preparation of accounts and reporting requirements.	RHD will implement IBAS, which is the government system for recording transactions.
<b>Overall control risk (RHD): <i>SUBSTANTIAL</i></b>			

Risk	Risk Assessment	Risk Description	Mitigation Measures or Action Plans
<b>Control Risk – BREB</b>			
1. Implementing Entity	M	BREB has a good track record in implementing ADB funded projects.	A PMU and PIU with adequate staff will be established.
2. Fund Flow	S	(i) Timely release of counterpart fund to the project.  (ii) ADB advance fund might be used for unintended purpose at the field level.	(i) Firm commitment from the MOF for the timely release of counterpart part fund will reduce the risk of allocation and delayed release of funds. Direct payment mechanism is to be used for major foreign component payments for contractors and suppliers for ADB share.  (ii) BREB will give assurance that ADB fund will be separately administered and maintained from counterpart fund.  (iii) ADB reserves the right to randomly audit all project subaccounts.  (iv) Subaccounts are subject to external audits by FAPAD and project internal audits.
3. Staffing	S	Competent finance and accounting staff dedicated for the project might not be assigned on time.	Government commitment and budget allocation for dedicated accounting staff in PMU and PIU with prior experience in ADB projects.
4. Accounting Policies and Procedures	M	Lack of well documented policies and procedures for the project.	Existing government policies and procedures are followed. The specific accounting and reporting procedures for the project will be established with support from FM expert under TA.
5. Internal Audit	S	BREB's internal audit department is understaffed given the number of offices. The internal auditors need training to improve their skills.	Capacity building of existing personnel and hiring of auditors with experience are required. Capacity building support can be organized with the assistance of Institute of Chartered Accounts of Bangladesh in the ongoing financial year. Personnel with experience in public sector auditing need to be recruited to the internal audit and a plan of action needs to be prepared by BREB's Human Resources Department.

<b>Risk</b>	<b>Risk Assessment</b>	<b>Risk Description</b>	<b>Mitigation Measures or Action Plans</b>
6. External Audit	L	The audit of the project financial statements should be done in accordance with the International Standards on Auditing and by the independent auditor acceptable to ADB.	The current arrangement of having the audit done by FAPAD of CAG is acceptable to ADB. Implementing agencies need to ensure FAPAD audited report is submitted within 6 months from the fiscal year end.
7. Reporting and Monitoring	S	Reporting system is in place at the respective implementing agency's level. However, financial reporting arrangement will need to be set up for the project.	The financial reporting procedure and format to be developed with support from FM expert under the TA.
8. Information Systems	M	The size and the nature of the organization requires that record keeping of its resources is carried out with the help of computers, so that custodianship of the assets can be ensured and monitored efficiently. At present two vital systems of the organization, accounting and fixed asset recording are done manually.	BREB has appointed a World Bank consultant for computerization of its accounting system by end of Financial Year 2018. Additionally, BREB has an IT department which has already organized the computerization of two of its systems, warehouse and payroll. Integration and update of equipment record card system with fixed asset and GIS system would be supported under the BREB roadmap.
<b>Overall control risk (BREB): SUBSTANTIAL</b>			
<b>Overall control risk (ALL): SUBSTANTIAL</b>			

ADB = Asian Development Bank; BREB = Bangladesh Rural Electrification Board; CAG = Comptroller and Auditor General; FAPAD = Foreign Audited Project Audit Directorate; FM = financial management; H = High; IBAS = Integrated Budgeting and Accounting System; IT = information technology; LGED = Local Government Engineering Department; L = Low; M = Moderate; MOF = Ministry of Finance; PFM = Public Financial Management; PIU = Project implementation unit; PMU = Project Management Unit; RHD = Road and Highways Department; S = Substantial; TA = technical assistance.

18. To mitigate risks above, following action plans are discussed and agreed with the government:

**Table 13: Time-bound Action Plan**

<b>Area</b>	<b>Risk Mitigating Activity</b>	<b>Timeline</b>	<b>Entity</b>
Government counterpart fund	Grant assurance on timely release of counterpart funds (for tax and duties, land acquisition, resettlement costs and project management staff).	Grant agreement	MOF/LGED/DPHE/RHD/BREB
Staffing	For PIUs, staff with prior ADB project experience must be in place. For each PIU, dedicated and competent accounting staff are appointed.	Before grant effectiveness	MOF/LGED/DPHE/RHD/BREB
Capacity support	FM individual consultant with accounting qualification to be recruited to provide support throughout project implementation.	Before grant effectiveness	ADB/LGED/DPHE/RHD/BREB
Detailed FM capacity assessment	FM consultant to conduct detailed FM capacity assessment and prepare detailed mitigation plans and action plans to address risk area for PMU and PIUs.	At the start of the project	LGED/DPHE/RHD/BREB

Area	Risk Mitigating Activity	Timeline	Entity
Training on ADB policies and procedures	Impart training to PMU and PIU staff (accounting, technical) who are involved in the project.	Before grant effectiveness	ADB/LGED/DPHE/RHD/BREB
Accounting and reporting procedure	Develop an appropriate organogram with adequate segregation of duties and financial accounting manual with support of TA consultant	At the start of the project	LGED/DPHE/RHD/BREB
Information system	A unified web-based project monitoring and MIS to be established by the PMU to monitor implementation, fund-flow, accounting, audit and reporting functions. The TA consultant will provide support.	At the start of the project	ADB/LGED/DPHE/RHD/BREB
Internal audit	Establishment of an independent and effective internal audit function with assistance of FM consultant under TA.	At the start of the project	LGED/DPHE/RHD/BREB
Periodic FM report	Prepare quarterly reports for the project with financial and disbursement information as well as variance analysis of physical and financial progress. The report should include the status of FM action plan.	Every quarter	LGED/DPHE/RHD/BREB
APFS	APFS will be submitted to ADB within 6 months of the end of the fiscal year in the format acceptable to ADB. Audit observations and other issues from prior years to be resolved.	At the end of each financial year	LGED/BREB/RHD/DPHE/FAPAD

ADB = Asian Development Bank; APFS = audited project financial statement; BREB = Bangladesh Rural Electrification Board; FM = financial management; LGED = Local Government Engineering Department; MIS = management information system; MOF = Ministry of Finance; PIU = Project implementation unit; PMU = Project Management Unit; RHD = Road and Highways Department; TA = technical assistance.

19. With the implementation of mitigation measures, it is expected that financial management capacity of executing and implementing agencies for the project will be satisfactory. It is also concluded that executing and implementing agencies have sufficient capacity to administer advance fund and Statement of Expenditures (SOE) procedures under the proposed fund flow scheme.

## B. Disbursement

### 1. Disbursement Arrangements for ADB Funds

20. The grant proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2017, as amended from time to time),<sup>10</sup> and detailed arrangements agreed upon between the government and ADB. Online training for project staff on disbursement policies and procedures is available.<sup>11</sup> Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

21. Reimbursement, advance fund, direct payment and commitment procedures will be adopted in the disbursement of grant proceeds. Respective implementing agencies will be responsible for the preparation and sending of withdrawal applications to ADB.

22. **Advance fund procedure.** Separate advance accounts should be established and maintained by the implementing agencies. The currency of the advance accounts is the US dollar. LGED, DPHE and BREB will open three separate USD currency advance accounts at Bangladesh

<sup>10</sup> The handbook is available electronically from the ADB website (<http://www.adb.org/documents/loan-disbursement-handbook>)

<sup>11</sup> Disbursement eLearning. [http://wpqr4.adb.org/disbursement\\_elearning](http://wpqr4.adb.org/disbursement_elearning)

Bank. Each implementing agency will have separate second generation advance accounts and separate sub-accounts in BDT currency at commercial bank as approved by Ministry of Finance. The advance account is to be used exclusively for ADB's share of eligible expenditures. The authorized signatory of implementing agencies will administer the advance account, also accountable and responsible for proper use of advances including second generation advance account and sub-accounts.

23. The total outstanding advance to the advance accounts should not exceed the estimate of ADB's share of expenditures to be paid through the advance accounts for the forthcoming 6 months. The implementing agencies may request for initial and additional advances to the advance account based on an Estimate of Expenditure Sheet<sup>12</sup> setting out the estimated expenditures to be financed through the accounts for the forthcoming 6 months. Supporting documents should be submitted to ADB or retained by the implementing agencies in accordance with *ADB's Loan Disbursement Handbook* (2017, as amended from time to time) when liquidating or replenishing the advance account.

24. **Statement of expenditure procedure.**<sup>13</sup> The SOE procedure may be used for reimbursement of eligible expenditures or liquidation of advances to the advance account. The ceiling of the SOE procedure is the equivalent of \$100,000 per individual payment. Supporting documents and records for the expenditures claimed under the SOE should be maintained and made readily available for review by ADB's disbursement and SOE review missions, upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit. Reimbursement and liquidation for individual payments more than the SOE ceiling should be supported by full documentation when submitting the withdrawal application to ADB.

25. Before the submission of the first withdrawal application, the borrower should submit to ADB sufficient evidence of the authority of the persons who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is stipulated in the *Loan Disbursement Handbook* (2017, as amended from time to time). Individual payments below such amount should be paid (i) by the executing and implementing agencies and subsequently claimed to ADB through reimbursement, or (ii) through the advance fund procedure, unless otherwise accepted by ADB. The implementing agencies should ensure sufficient category and contract balances before requesting disbursements or liquidations of advance account. Use of ADB's Client Portal for Disbursements (CPD)<sup>14</sup> system is encouraged for submission of withdrawal applications to ADB.

## 2. Disbursement Arrangements for Counterpart Fund

26. The government counterpart funds will be sufficiently allocated in the budget annually. Under the project, implementing agencies will be responsible for preparing the disbursement projections, and requesting budgetary allocations for counterpart funds to the Ministry of Finance. Implementing agencies will submit to ADB annual contract awards and disbursement projections at least a month before the start of each calendar year.

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<sup>12</sup> Estimate of Expenditure sheet is available in Appendix 8A of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

<sup>13</sup> SOE forms are available in Appendix 7B and 7D of ADB's *Loan Disbursement Handbook* (2017, as amended from time to time).

<sup>14</sup> The CPD facilitates online submission of withdrawal application to ADB, resulting in faster disbursement. The forms to be completed by the Borrower are available online at <https://www.adb.org/documents/client-portal-disbursements-guide>.

### **C. Accounting**

27. The implementing agencies will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project following the government's financial regulations. For the project, each IA will prepare separate consolidated project financial statements in accordance with the Bangladesh Financial Procedures and Accounting Procedures, which are consistent with International Accounting Standards (IAS).

### **D. Auditing and Public Disclosure**

28. The implementing agencies will cause the detailed project financial statements to be audited in accordance with International Standards on Auditing by an independent auditor acceptable to ADB. The audited project financial statements together with the auditor's opinion will be presented in the English language to ADB within 6 months from the end of the fiscal year by all four implementing agencies. The implementing agencies will ensure that the total amount in the audited project financial statements will reconcile with ADB's disbursement amount during the respective fiscal year.

29. The audit report for the project financial statements will include a management letter and auditor's opinions, which cover (i) whether the project financial statements present an accurate and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting standards; (ii) whether the proceeds of the grant were used only for the purpose of the Project; and (iii) whether the borrower or executing agency was in compliance with the financial covenants contained in the legal agreements.

30. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

31. The government and implementing agencies have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.<sup>15</sup> ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the Project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

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<sup>15</sup> ADB's approach and procedures regarding delayed submission of audited project financial statements: When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (a) the audit documents are overdue; and (b) if they are not received within the next 6 months, requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.

(i) When audited project financial statements are not received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (a) inform the executing agency of ADB's actions; and (b) advise that the grant may be suspended if the audit documents are not received within the next 6 months.

(ii) When audited project financial statements are not received within 12 months after the due date, ADB may suspend the grant.

32. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Public Communications Policy 2011.<sup>16</sup> After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.<sup>17</sup>

## VI. PROCUREMENT AND CONSULTING SERVICES

33. Given the urgent project needs, procurement of goods, works, and consulting services will be carried out in a manner consistent with the simplified and expedient procedures under the ADB Disaster and Emergency Assistance Policy (2004) and ADB Procurement Policy and Procurement Regulations for ADB Borrowers (2017, as amended from time to time).

34. Executing and implementing agencies will carry out the procurement of goods, works, and consulting services in a manner consistent with the simplified and expedient procedures in its ADB Disaster and Emergency Assistance Policy (2004), the ADB Procurement Policy (2017, as amended from time to time), and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). Most civil works and goods contracts will be awarded through open competitive bidding (OCB) and the national advertisement method. To ensure efficiency, special procedures for emergency lending will be used, including reducing the bidding period to 14 days when appropriate; using single-stage one-envelope bidding procedures; developing a master bid document for each implementing agency; and developing a time-bound action plan to award contracts, including a contract management plan. Some civil works and goods contracts may be procured using direct contracting, where appropriate, following procedures acceptable to ADB. Small and simple works and goods up to \$100,000 may be procured using international and/or national request for quotations. ADB encourages community participation in the procurement of small works of a simple nature. Subject to bidding documents being modified to comply with ADB requirements, the national electronic government procurement system will be used for OCB to award most civil and supply contracts, although manual or off-line bidding may be used where appropriate.

35. Consultants under the grant shall be recruited in accordance with ADB Procurement Policy and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). To support project implementation, consulting firms will be recruited through OCB procedures, local advertisements, and/or limited competitive bidding using a quality- and cost-based selection procedure, a simplified technical proposal, or a biodata technical proposal. Other methods, such as the consultants' qualifications selection, may also be used where appropriate. Individual consultants will be recruited using the individual selection method with international and/or local advertisements, based on the project's requirements. Consultants who are already engaged in ADB-financed projects and provide similar services as those required for the project may be recruited directly, subject to their satisfactory performance. This arrangement will provide an efficient way to recruit consultants under the circumstances. Local nongovernment organizations (NGOs) may provide some social and gender studies and/or support. The option to have a direct contract or a memorandum of understanding with NGOs and/or UN agencies already engaged in the project area may also be explored where appropriate. Terms of reference, input and selection

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<sup>16</sup> Public Communications Policy: <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

<sup>17</sup> This type of information would generally fall under public communications policy exceptions to disclosure. ADB. 2011. *Public Communications Policy*. Paragraph 97(iv) and/or 97(v).

method shall be further reviewed and agreed upon with the implementing agencies during inception mission.

36. To strengthen and sustain the institutional and technical capacities of the executing and implementing agencies, and for timely and efficient delivery of the outputs, in addition to grant, an attached technical assistance (TA) for Implementing the Emergency Assistance Project shall fund the consulting services.<sup>18</sup> All consultants under the TA shall be recruited in accordance with ADB Procurement Policy (2017, as amended from time to time) and associated PAIs and TA Staff Instructions.

37. All executing and implementing agencies will be required to use Procurement Activity Monitoring Tool (PAMT),<sup>19</sup> a web-based database ([www.bdpamt.org](http://www.bdpamt.org)), to record and monitor time taken at each step of procurement process, track delays, if any, and take appropriate quick action, for all prior and post review packages of goods and works under the project.

#### **A. Advance Contracting and Retroactive Financing**

38. All advance contracting and retroactive financing will be undertaken in conformity with ADB Procurement Policy and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower, executing and implementing agencies have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project.

39. **Advance contracting.** ADB allowed advance contracting for recruitment of consultants and procurement of goods, related services and civil works including inviting and receiving bids, evaluation of bids; and recruitment of consultants for contracts that might be approved for implementation prior to grant effectiveness. The issuance of invitations to bid under advance contracting will be subject to ADB approval.

40. **Retroactive financing.** Retroactive financing will be allowed for up to 30% of the grant amount for eligible expenditures incurred under the project, provided that such expenditures have been incurred after the emergency occurred but not earlier than 12 months before the date of the grant agreement.

#### **B. Procurement of Goods, Works and Consulting Services**

41. Once the subproject is selected based on selection criteria (Appendix 2), cost estimates shall be updated and bid documents prepared. Bids shall be invited and evaluated. TOR shall be developed before inviting EOI or issuance of RFP in case of LCB. ADB shall review short-listing and draft RFP before issuance of RFP and proposal evaluation. In case of works and goods contracts, two contracts of similar nature for each respective agency shall be prior reviewed by ADB and rest shall be post reviewed (sampling). All contracts shall be prior reviewed. The government may modify the detailed arrangements set forth in the Procurement Plan only with the prior agreement of ADB, and such modifications must be set out in updates to the Procurement Plan.

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<sup>18</sup> The TA is estimated to cost \$3,100,000, of which \$3,000,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund. (TASF-6).

<sup>19</sup> PAMT was developed by ADB Bangladesh Resident Mission and rolled-out in 2016 following successful pilot testing.



### C. Procurement Plan

42. Initial procurement plan has been prepared through Procurement Review System (PRS) indicating various packages with cost estimate, type of procurement method, bidding documents, bidding procedures and review requirements for goods, works, and consulting services. The information in the procurement plan is indicative only. The Procurement plan shall be revised once subprojects are selected, and cost estimates are updated. The changes may also involve change in selection or procurement method, type of bid documents, including review requirements.

43. Initial tentative Procurement plan covering the scope of the project is detailed in Appendix 2.

**44. Regulation and Reference Documents.** Before the start of any procurement, ADB and the government will review the public procurement laws of the government to ensure consistency with ADB's Procurement Policy and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). The procedures to be followed for Open Competitive Bidding (OCB), national advertisement, for works and goods, shall be those set forth for the National Open Tendering Method in *The Public Procurement Rules, 2008* (as updated and pursuant to *The Public Procurement Act, 2006* issued by the Government of Bangladesh) with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the Procurement Regulations for ADB Borrowers (2017, as amended from time to time)

- (a) **Eligibility.** The eligibility of bidders shall be as defined under Section-I "Introduction" of the Procurement Regulations; accordingly, no bidder or potential bidder should be declared ineligible for reasons other than those provided in Section-I of the Procurement Regulations, as amended from time to time.
- (b) **Location of Bid Submission.** Submission of bids to 'primary' and 'secondary' locations, or 'multiple droppings' of bids, shall not be required or allowed. Advertisements and bidding documents shall specify only one location for delivery of bids.
- (c) **Bid Price as Percentage of Estimate.** Bids shall not be invited based on percentage above or below the estimated cost, and contract award shall be based on the lowest evaluated bid price of responsive bid from eligible and qualified bidder.
- (d) **Lottery.** A lottery system shall not be used to determine a successful bidder, including for resolving deadlocks.
- (e) **Rejection of All Bids and Rebidding.** Bids shall not be rejected, and new bids solicited without ADB's prior concurrence, irrespective of review requirements.

#### Bidding Documents

- (a) **Anti-Corruption.** Definitions of corrupt, fraudulent, collusive and coercive practices shall reflect the latest ADB Board-approved Anti-Corruption Policy definitions of these terms and related additional provisions (such as conflict of interest, etc.).
- (b) **Qualification Requirements.** Qualification criteria and specific requirements must be explicitly stated in the bidding documents and applied consistently during bid evaluation.
- (c) **Rejection of Bids.** A bid shall not be rejected claiming its bid price is not within a

percentage range above or below the contract estimate.

- (d) **ADB Policy Clauses.** Provisions shall be included in all OCB, national advertisement, civil works and goods contracts financed by ADB requiring:
- (i) suppliers and contractors to permit ADB to inspect their accounts and records and other documents relating to the bid submission and the performance of the contract, and to have them audited by auditors appointed by ADB;
  - (ii) that the borrower shall reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the contract in question; and
  - (iii) that ADB will declare a firm or individual ineligible, either indefinitely or for a stated period, to be awarded a contract financed by ADB, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices or any integrity violation in competing for, or in executing, ADB-financed contract.

#### D. Consultant's Terms of references

45. Estimated 275 person-months (national) of consulting services are required to (i) facilitate subproject design, procurement and contract management; (ii) monitoring and supervision, and (iii) strengthening the institutional and operational capacity of the executing and implementing agencies. The required input and expertise of the consulting services will be further confirmed during the subproject selection and preparation stage.

46. Indicative terms of reference for consulting services are in Appendix 3.

### VII. SAFEGUARDS

47. The project is categorized as B for environment, B for involuntary resettlement, and C for tribes, minor races, ethnic sects and communities.<sup>20</sup> Safeguards frameworks, specifically an environmental assessment and review framework (EARF) and a resettlement framework were prepared in accordance with ADB's Safeguards Policy Statement 2009. A separate planning framework is not required as the project will not include subprojects that affect tribes, minor races, ethnic sects and communities. This will be ensured through screening of all subprojects using the tribes, minor races, ethnic sects and communities screening checklist (Appendix1).<sup>21</sup> Initial environmental examinations and environmental management plans will be prepared and implemented for subprojects consistent with the EARF and will be incorporated into bidding documents and contract documents to be implemented by contractors. Resettlement plans will be prepared and implemented for subprojects consistent with the Resettlement Framework. Land acquisition will be avoided.<sup>22</sup> In cases where there is a need to reorganize camps to accommodate project interventions, PIUs in coordination with the camp-in-charge, shelters will not be disturbed

<sup>20</sup> Groups or population identified as Indigenous Peoples within the context of ADB's Safeguard Policy Statement will be referred to in this document as *tribes, minor races, ethnic sects and communities* (following the request of the Government of Bangladesh).

<sup>21</sup> Screening of impacts on tribes, minor races, ethnic sects and communities will include an analysis of common property resources that may be shared by tribes, minor races, ethnic sects and communities in the project area.

<sup>22</sup> Direct purchase or lease agreements avoid land acquisition. Where voluntary donation or negotiated settlement are used, SPS and the RF will be followed.

until an equivalent shelter within the camp is constructed and that water, sanitation, and hygiene facilities are ensured during the reorganization.

48. Subprojects will conform with ADB's Safeguards Policy Statement, 2009 (SPS) with respect to social and environment considerations. Subprojects with significant (category A) environmental<sup>23</sup> and resettlement<sup>24</sup> impact, or with impacts on tribes, minor races, ethnic sects and communities (category A and B), will be excluded. Subprojects with activities described in ADB's Prohibited Investment Activities List will also be excluded.

**a. Environment**

- (i) Subprojects will not be undertaken in critical habitats and protected areas<sup>25</sup> including those either legally protected or officially proposed for protection.
- (ii) Subprojects should follow environmental guidelines in the EARF.

**b. Social**

- (i) Subprojects will not result in involuntary restrictions on land use or access to legally designated parks and protected areas.
- (ii) Subprojects will not include: (a) commercial development of cultural resources or knowledge on tribes, minor races, ethnic sects and communities; (b) physical relocation from traditional or customary lands; (c) commercial development of natural resources; (d) establishing legal recognition of rights to lands and territories; or (e) acquisition of land traditionally owned, customarily used, occupied, or claimed by tribes, minor races, ethnic sects and communities.
- (iii) Subprojects will not trigger tribes, minor races, ethnic sects and communities safeguards.

49. The executing and implementing agencies will form PIUs which will have Safeguards (one Environment and one Resettlement) Focal Persons to coordinate environmental and social safeguards planning and implementation, assisted by the project management consultants (PMC). The PMC will include an Environment Specialist and a Resettlement Specialist engaged during project implementation. The PIUs will ensure that the EARF and resettlement framework are followed during subproject implementation. PIUs will prepare the respective safeguards documents for approved subprojects. The PIUs will be assisted by design supervision consultants (DSC) which will include Environment Specialists and Resettlement Specialists engaged during project implementation. The PIUs will undertake screening and classification of subprojects for submission to the executing and implementing agencies and ADB. Safeguards documents will be reviewed and approved by the executing and implementing agencies and ADB. PIUs will be tasked with the day-to-day implementation and monitoring of safeguards plans. PIUs will also obtain all clearances and fulfill government requirements. PIUs will be responsible for data required for safeguards plan preparation and monitoring and progress reports, and coordination with relevant departments such as Department of Environment and Bangladesh Forest Department to consult and/or obtain endorsement if necessary. Institutional roles and responsibilities are detailed in the EARF and resettlement framework.

<sup>23</sup> Subprojects likely to have significant impacts that are irreversible, diverse, or unprecedented.

<sup>24</sup> 200 or more persons will be physically relocated from their homes, 200 or more persons lose 10% or more of their productive or income generating assets, or 200 or more persons experience a combination of both.

<sup>25</sup> Including national parks, wildlife reserves, conservation area, wetlands, ancient/cultural and archeological areas (Environmental Conservation Rules, 1997).

50. **Prohibited investment activities.** Pursuant to ADB's Safeguard Policy Statement (2009), ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the Safeguard Policy Statement (2009).

### **VIII. GENDER AND SOCIAL DIMENSIONS**

51. The project is classified as Effective Gender Mainstreaming, and a Gender Equality and Social Inclusion (GESI) Action Plan has been prepared, in consultation with the ISCG and its Gender in Humanitarian Assistance (GIHA) platform. To ensure the effective implementation of the GESI Action Plan, the Project will hire two Social Development (GAD) experts based in Coxsbazar and the services of a national NGO for effective social mobilization. This will ensure effective participation of women and disadvantaged groups in all project-supported activities in line with the commitments set out in the GESI/AP including but not limited to labor opportunities, decisions-making processes and access to basic services. GESI-related results will be reported using sex-disaggregated data.

### GENDER EQUALITY AND SOCIAL INCLUSION ACTION PLAN (GESI/AP)<sup>26</sup>

Output/Activities	Indicators and Targets <sup>27</sup>	Responsibility	Time frame
<b>Output 1: Water Supply and Sanitation Improved</b>			
1. Ensure women's equitable access to employment in construction of community-bathing facilities and mini-piped water supply systems (WSSs).	1. Women workers recruited for construction of 600 community bathing facilities and mini-piped WSSs, with equal wages paid for work of equal value [Target: 10-20% women].	DPHE PIU	Before constructions starts
2. Arrange inclusive public consultations to build community-bathing facilities and mini-piped WSSs.	2. Public consultations conducted with local communities to validate proposed sites WSS systems and bathing facilities [Target: 33% women and girls].		
3. Ensure separate lines for women to receive treated water in camps.	3. Separate line for women and children with at least 1-woman operator assigned for separate lines each time treated water is distributed.		Year 1 onwards
4. Establish inclusive O&M committees (mini-piped water supply systems).	4. At least 20% O&M committees (mini-piped water supply systems) members are women.		After construction
	5. O&M committee members received on-site orientation on: basic O&M of mini-piped water supply systems [½ day orientation/committee].		
5. Undertake awareness programs.	6. Awareness programs on water conservation, water quality and hygiene education conducted [Target: 33% women and girls], including menstrual hygiene.		
<b>Output 2: Disaster Risk Management Strengthened</b>			
6. Ensure overall design of multipurpose cyclone shelter and food distribution centers have elderly-women-children-disabled (EWCD) friendly features.	7. Ten multi-purpose cyclone shelters designed and constructed with EWCD features, with sex-disaggregated toilets and designated space for women (incl. pregnant and lactating mothers).	LGED PIU	During construction work
7. Consult on spot selection for multipurpose cyclone shelters and food distribution centers.	8. Public consultations conducted with local communities to validate proposed sites for multipurpose cyclone shelters and food distribution centers [Target: 33% women and girls].		Year 1 onwards

<sup>26</sup> Quantitative targets (e.g. number of public consultations, awareness programs and orientations and estimated number of household connections) have been set based on available information and data. They will be further refined and assessed on project onset by the ADB Team in consultation with RHD and LGED.

<sup>27</sup> Quantitative targets (e.g. number of public consultations, awareness programs and orientations and estimated number of household connections) have been set based on available information and data. They will be further refined and assessed on project onset by the ADB Team in consultation with RHD and LGED. Separate consultations with women/girls and men/boys will take place -as needed- for indicators 8, 12 and 17.

Output/Activities	Indicators and Targets	Responsibility	Time frame
8. Develop a gender-responsive disaster risk reduction and management plan (for the affected area).	9. Disaster Risk Reduction and Management Plan includes specific section on addressing the needs of EWCD before, during and after disasters; 10. Participants in consultation include equitable participation of the elderly, women and disabled [Target: 33% women and girls].		Year 1 onwards
9. Ensure women's equitable access to employment opportunities.	11. Pro-actively reach out to women for their equitable access to employment opportunities related to the administration and management of the multi-purpose cyclone centers; food warehouse.		During construction work
<b>Output 3: Energy Sources Provided</b>			
10. Consult on spot selection for streetlights to ensure safety of women and girls (safe mobility during dark).	12. Public consultations conducted with local communities to validate proposed sites for streetlights installation [Target: 33% women and girls].	BREB PIU	Year 1 onwards
11. Ensure vulnerable women receive heat cookers.	13. At least 50% people receiving user-friendly, retainer heat cookers are women.		
12. Ensure the heat cooker suppliers arrange (i) user training and (ii) public demonstration on usage of cookers.	14. At least 50% users receive training and participate in public demonstration.		
<b>Output 4: Access Roads Improved</b>			
13. Ensure women's equitable access to employment (skilled/semi-skilled) in road construction or rehabilitation by the Road and Highways Department (RHD) and Labor Contracting Societies (LCS) under the Local Government Engineering Department (LGED)	15. Contractors and relevant RHD and LGED field staff oriented on national core labor standards, codes of conduct and prevention of sexual exploitation and abuse and project-specific gender targets [½ day training/package].	EAs (RHD & LGED) PIU	Before constructions starts
	16. Women workers received on-site orientation on: basic construction, improvement, reconstruction works and maintenance skills [½ day training/package].		
	17. Public consultations conducted with local communities to validate proposed sites for tube-well installation [Target: 33% women participation].		
	18. Women workers recruited in internal roads and stairs with drainage with equal wages paid for work of equal value [Target: 10-20% women].	EA (RHD) PIU	During construction work
	19. Women workers recruited by contractors for earthwork, construction and rehabilitation of sub-district, union roads and road from Coxsbazar to Tekhaf, with equal wages paid for work of equal value [Target: 10-20% women].	EA (LGED) PIU	

BREB = Bangladesh Rural Electrification Board; DDMR = Department of Disaster Management and Relief; DPHE = Department of Public Health and Engineering; EA = executing agency; LCS = Labor Contracting Society; LGED = Local Government and Engineering Department; O&M = Operation and Maintenance; PMU = Project Management Unit; RHD = Roads and Highway Department; WSS = water supply and sanitation.

Source: Asian Development Bank.

## IX. PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION

### A. Project Design and Monitoring Framework

<b>Impact the Project is Aligned with</b>			
Social recovery of displaced persons in Teknaf and Ukhia camps accelerated (Defined by the project)			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Risks</b>
<p><b>Outcome</b> Living conditions and resilience of displaced persons improved</p>	<p>By 2021</p> <p>a. Reported cases of waterborne diseases decreased by 20%.<sup>a</sup></p> <p>b. Occurrence of landslides and flooding in project area during average monsoon months reduced by 50%.<sup>a</sup></p> <p>c. At least 90% of households in project area connected to electricity.<sup>a</sup></p> <p>d. Average travel time to transport relief goods and services to campsites reduced by 50%.<sup>a</sup></p>	<p>a. Project beneficiary survey, executing agency reports</p>	<p>Crisis and influx of displaced persons extend beyond the project life and exceed projected demand for services.</p>
<p><b>Outputs</b></p> <p>1. Water supply and sanitation improved</p> <p>2. Disaster risk management strengthened</p>	<p>By 2020</p> <p>1a. 5 mobile water carriers for the distribution of potable water to the camps provided (2018 baseline: 0)</p> <p>1b. 600 community bathing facilities for women constructed and maintained, of which 10%–20% of women are employed and involved (2018 baseline: 0)<sup>b</sup></p> <p>1c. 40 mini piped water supply systems with production tube wells constructed (2018 baseline: 0)</p> <p>1d. 5 integrated waste management facilities constructed, and a collection system established (2018 baseline: 0)</p> <p>1e. 2 small surface water treatment plants constructed or expanded (2018 baseline: 0)</p> <p>2a. 10 multipurpose cyclone shelters constructed with sex-disaggregated toilets and designated space for women, including pregnant women and lactating mothers (2018 baseline: 0)</p> <p>2b. 20 semipermanent food distribution centers constructed and employed 10%–20% of women in the community (2018 baseline: 0)<sup>b</sup></p>	<p>1a–e. Periodic project progress reports prepared by the executing agency</p> <p>2a–f. Periodic project progress reports prepared by the executing agency</p>	<p>Extreme climate events disrupt or delay execution of works.</p>

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
3. Energy sources provided	<p>2c. 5 km of hill slope protection and/or toe walls constructed (2018 baseline: 0)</p> <p>2d. 5 km storm water drainage network constructed (2018 baseline: 0)</p> <p>2e. 200 lightning arresters installed (2018 baseline: 0)</p> <p>2f. Gender-sensitive disaster risk management plans, adopting community-based disaster risk reduction approach, prepared and implemented (2018 baseline: not applicable)</p> <p>3a. A 33/11 kV, 10 MVA substation constructed; and Coxsbazar-Teknaf grid augmented<sup>a</sup></p> <p>3b. A 50 km, ≤11 kV new distribution line constructed with 5 MVA distribution transformers installed (2018 baseline: 0)</p> <p>3c. 2,000 new mini grid-connected street lights and 4,000 new stand-alone solar LED lights with built-in solar PV panels and battery banks installed (2018 baseline: 62 grid-connected street lights and 2,495 solar PV street lights inside the camps)</p> <p>3d. 70,000 retained heat cookers provided (2018 baseline: 0)</p> <p>3e. 50 solar PV micro-grid systems installed at Balukhali, Kutupalong, Noyapara, Leda, and Shamlapur camps (2018 baseline: 0)</p>	3a–e. Periodic project progress reports prepared by the executing agency	
4. Access roads improved	<p>4a. 30 km of internal roads and stairs (where required) with drainage facilities constructed (2018 baseline: 0)</p> <p>4b. 30 km of rural roads to connect to food storage centers, food distribution centers, field hospitals, primary health care centers, cyclone shelters, and primary education centers reconstructed and rehabilitated (2018 baseline: 0)</p> <p>4c. 50 km of the road from Coxsbazar to Teknaf resurfaced, including the improvement of critical</p>	4a–d. Periodic project progress reports prepared by the executing agency	



Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
	sections (market areas and culverts) (2018 baseline: 0)  4d. 10%–20% of women employment in the construction and rehabilitation of access roads achieved (2018 baseline: 0) <sup>b</sup>		
<b>Key Activities with Milestones</b>			
<b>1. Water supply and sanitation improved</b>			
1.1 Identify and appraise subprojects, as required (by Q3 2018)			
1.2 Recruit consultants (by Q3 2018)			
1.3 Prepare bid documents and commence bidding (by Q3 2018)			
<b>2. Disaster risk management strengthened</b>			
2.1 Identify and appraise subprojects, as required (by Q3 2018)			
2.2 Recruit consultants (by Q3 2018)			
2.3 Prepare bid documents and commence bidding (by Q3 2018)			
2.4 Complete disaster risk capacity building for implementing agencies and key stakeholders (Q4 2018)			
<b>3. Energy sources provided</b>			
3.1 Identify and appraise subprojects, as required (by Q3 2018)			
3.2 Recruit consultants (by Q3 2018)			
3.3 Prepare bid documents and commence bidding (by Q3 2018)			
<b>4. Access roads improved</b>			
4.1 Identify and appraise subprojects, as required (by Q3 2018)			
4.2 Recruit consultants (by Q4 2018)			
4.3 Prepare bid documents and commence bidding (by Q3 2018)			
<b>Project Management Activities</b>			
Recruit design, monitoring and supervision consultants (by Q4 2018)			
Establish PIUs (by Q3 2018)			
Establish monitoring and evaluation system			
Carry out quality reviews			
<b>Inputs</b>			
ADB: \$100 million (grant)			
Technical Assistance Special Fund (TASF 6): \$3.0 million (grant)			
Government: \$20 million			
<b>Assumptions for Partner Financing</b>			
Not Applicable			

ADB = Asian Development Bank, km = kilometer, kV = kilovolt, LED = light-emitting diode, MVA = mega volt amp, PIU = project implementation unit, PV = photovoltaic, Q = quarter.

<sup>a</sup> Baseline data will be finalized during the inception mission, along with the subproject selection and design details.

<sup>b</sup> Gender-related targets have been set within the 10%–20% range to account for different sociocultural contexts and practices of displaced persons in the project area, which may affect women's ability to participate in project-financed activities, especially employment opportunities. These estimates are based on (i) consultations with the Roads and Highways Department and the Local Government Engineering Department, and (ii) 2018 data available for ADB-financed projects in the project area.

Source: Asian Development Bank.

## B. Monitoring

52. **Project performance monitoring.** Overall monitoring of each project component in terms of progress will be undertaken by the government, which will review monthly progress reports submitted by the implementing agencies. The concerned line ministries, acting on behalf of the government, will monitor progress, procurement, quality, and contract management. The Ministry of Disaster Management and Relief will coordinate all the activities. In addition, ADB will undertake regular site visits and provide guidance to the project director, and to project consultants. ADB and implementing agencies will conduct semiannual reviews throughout the implementation of the project and will regularly monitor the (i) project output quality; (ii) implementation arrangements; (iii) implementation progress; and (iv) disbursements. Performance will be monitored based on indicators and targets stipulated in the design and

monitoring framework. These will be reported quarterly through implementing agencies' quarterly progress reports and after each ADB review mission. These quarterly reports will provide information necessary to update ADB's project performance reporting system.<sup>28</sup>

53. **Compliance monitoring.** The grant agreement specifies the undertakings and covenants that will be monitored through regular review missions and on a quarterly basis in discussion with executing and implementing agencies. Compliance with undertakings and grant covenants, social and environmental safeguards, and financial and economic aspects will be jointly monitored by ADB and the executing and implementing agencies.

54. **Safeguards monitoring.** The executing and implementing agencies with support from the PMC will brief the PIU Safeguards Focal Persons on monitoring requirements for EMP and resettlement plan implementation. Monitoring data will be generated by the PIUs. The PIUs will submit monitoring data and other required information to the executing and implementing agencies. The executing and implementing agencies will prepare semi-annual monitoring reports (one for environment and one for involuntary resettlement) that describe progress of safeguards implementation, compliance issues, and corrective actions. Reports will be posted in a location accessible to the public. Safeguards monitoring requirements including suggested monitoring report formats are in the EARF and Resettlement Framework.

55. **Gender and social dimensions monitoring.** Gender and social data will be monitored, collated and analyzed to provide an indication of change in the life of beneficiaries, which in turn will be important for recording the outputs and performance of the project. The implementation status of the gender action plan will be reported to ADB through all four implementing agencies with routine project progress reports and other monitoring reports. In addition, the inclusion and compliance with labor standards, health and gender aspects will be monitored through review of bidding documents, contract awards, and progress reports.

## C. Evaluation

56. ADB will conduct regular semi-annual review missions to review, discuss progress, and report on the project performance. ADB will conduct regular coordination meetings involving RRRC, all implementing agencies, relevant stakeholders including deputy commissioner of Coxsbazar, other development partners and agencies. If needed, ADB may establish a liaison office in Coxsbazar for close coordination, facilitation of subprojects development and implementation including monitoring. A midterm review will be carried out in one and half years after effectiveness of the grant. Within 6 months of physical completion of the project, implementing agencies will submit the project completion reports for their respective subprojects.

57. A consolidated midterm analysis report will be prepared and disseminated during the midterm review mission, expected in December 2019.

## D. Reporting

58. The implementing agencies will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for the next 12 months; and (iii) a project completion report within 6

<sup>28</sup> ADB's project performance reporting system is available at <http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>.

months of physical completion of the project. To ensure that projects will continue to be both viable and sustainable, project accounts and the executing agency audited financial statement together with the associated auditor's report, should be adequately reviewed.

## **E. Stakeholder Communication Strategy**

59. The project will be informed by the principles of transparency and accountability set out in the ADB Public Communications Policy (PCP), 2011 and adopt a communications strategy to ensure that: (i) information on the project reaches all people concerned; and (ii) opportunities for stakeholders to contribute to project design and implementation are maximized. Despite the emergency nature of the project, the ADB reached out to relevant Government agencies (central, district, sub-district level), executing and implementing agencies, development partners (incl. NGOs/CSOs), host communities and beneficiaries in May-June 2018. Consultation and Participation (C&P) approaches have been incorporated, as feasible in the Gender Equality and Social Inclusion (GESI) Action Plan and relevant social safeguards documents, which will be available to the public and posted online.

60. Project information will be shared with relevant stakeholders using appropriate tools and language. Information bulletin boards, leaflets, project briefs in Bangla, including timetable, status, and implementation progress, will be posted -as needed- on relevant websites and disseminated. The project progress, benefits and lessons learnt will be shared. Specifically, the stakeholder communications strategy of the project will include the following approaches:

- (i) The government will cause the executing and implementing agencies to ensure that all project staff are fully aware of—and capable of explaining to stakeholders—the ADB procedures, including, but not limited to, procedures for implementation, procurement, use of consultants, disbursements, reporting, monitoring, and prevention of fraud and corruption.
- (ii) The implementing agencies will disclose on their website key project information, including the scope, cost, and financial and institutional arrangements of the project, project safeguard reports such as IEE and RPs, and project progress such as procurement, contract award and disbursement and disclose the audited financial project financial statements. The website will provide the contact details of PIU staff in English and Bangla and will link to ADB's Integrity Unit website at <http://www.adb.org/Integrity/complaint.asp> for reporting grievances or allegations of corrupt practices arising out of the project and/or project activities. Coordination with RRRC will ensure adequate information sharing and consultation with relevant government agencies, UN Agencies, other development partners and CSOs/NGOs involved in the project area throughout project implementation.

## **X. ANTICORRUPTION POLICY**

61. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.<sup>29</sup> All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants, and other service providers. Individuals and/or entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.<sup>30</sup>

<sup>29</sup> Anticorruption Policy: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

<sup>30</sup> ADB's Integrity Office web site: <http://www.adb.org/integrity/unit.asp>

62. To support these efforts, relevant provisions are included in the grant agreement, project agreement and the bidding documents for the project. All contracts financed by ADB in connection with the project will include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency, implementing agencies and all contractors, suppliers, consultants, and other service providers as they relate to the project. ADB will disseminate ADB's anticorruption policy to executing agency and the implementing agencies

63. Project-specific measures to enhance governance and prevent corruption, designed with the stages of project implementation and the disbursement chain in mind, include (i) the requirement for the PIUs to follow government's procedure for all expense and revenue items including cash and the proper and accurate maintenance of financial records; (ii) establishing a project website to provide transparency on project details; and (iii) adhering to risk assessment and risk mitigation plan, which is in Appendix 5.

## **XI. ACCOUNTABILITY MECHANISM**

64. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should try in good faith to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.<sup>31</sup>

## **XII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL**

65. The first draft of the PAM was agreed upon at grant negotiations on 26 June 2018. All revisions and updates including the revision to contract awards and disbursement S-curves during the project implementation will be recorded as below in this section of the PAM:

S.N.	Date	Revisions
First revision		
Second revision		

<sup>31</sup> Accountability Mechanism. <http://www.adb.org/Accountability-Mechanism/default.asp>.

## SUBPROJECT SELECTION CRITERIA AND APPROVAL PROCEDURES

1. Within the JRP framework, ADB will prioritize subprojects for development and implementation to optimize the available resources in close coordination with the government and development partners. Each subproject will be subject to ADB's prior approval based on the following selection criteria:

- (i) direct impact on the lives of the international displaced persons in the camp areas,
- (ii) no or minimal land acquisition or acquisition of government land,
- (iii) compliance with ADB's safeguards requirements and no activities inside critical habitats and protected areas,
- (iv) no duplication of activities funded by other donors,
- (v) implementation period not extending beyond the project closing date, and
- (vi) inclusion of feedback from a beneficiary consultation process.

### A. Safeguards Criteria

2. Subprojects will conform with ADB's Safeguards Policy Statement, 2009 (SPS) with respect to social and environment considerations. Subprojects with significant (category A) environmental<sup>1</sup> and resettlement<sup>2</sup> impact, or with impacts on tribes, minor races, ethnic sects and communities<sup>3</sup> (category A and B), will be excluded. Subprojects with activities described in ADB's Prohibited Investment Activities List will also be excluded.

#### Environment:

- (i) Subprojects will not be undertaken in critical habitats, protected areas,<sup>4</sup> including those either legally protected or officially proposed for protection.
- (ii) Subprojects should follow environmental guidelines in the environmental assessment and review framework.

#### Social:

- (i) Subprojects will not result in involuntary restrictions on land use or access to legally designated parks and protected areas.
- (ii) Subprojects will not include: (a) commercial development of cultural resources or knowledge of tribes, minor races, ethnic sects and communities, (b) physical relocation from traditional or customary lands, (c) commercial development of natural resources, (d) establishing legal recognition of rights to lands and territories, or (e) acquisition of land traditionally owned, customarily used, occupied, or claimed by tribes, minor races, ethnic sects and communities.
- (iii) Subprojects will not trigger tribes, minor races, ethnic sects and communities safeguards.

<sup>1</sup> Subprojects likely to have significant impacts that are irreversible, diverse, or unprecedented.

<sup>2</sup> 200 or more persons will be physically displaced from home, 200 or more persons lose 10% or more of their productive income generating assets, or 200 or more persons experience a combination of both.

<sup>3</sup> Groups or population identified as Indigenous Peoples within the context of ADB's Safeguard Policy Statement will be referred to in this document as *tribes, minor races, ethnic sects and communities* (following the request of the Government of Bangladesh).

<sup>4</sup> Including national parks, wildlife reserves, conservation area, wetlands, ancient/cultural and archeological areas (Environmental Conservation Rules, 1997).

**B. Procedures**

3. Each subproject will be prepared and processed in accordance with the following procedures:

- (i) Technical study, including economic analysis, for all subprojects comprising civil works, will be conducted by the executing and implementing agencies including its cost estimate. The implementing agencies will also prepare and fill out checklist for (a) involuntary resettlement; (b) tribes, minor races, ethnic sects and communities people screening check list; and (c) an environmental screening in accordance with the relevant frameworks;
- (ii) All safeguards categorization and safeguards documents (resettlement plan, initial environmental examination (IEE) with environmental management plan (EMP) will be provided to ADB for review and concurrence;
- (iii) The implementing agencies will translate the resettlement plan into the local language and disclose it to the affected people and incorporate the results of the consultation. The resettlement plan and IEE (with EMP) will also be disclosed on the ADB website and the website of executing and implementing agencies;
- (iv) The executing and/or implementing agencies will prepare development project proposals (DPP) for all subprojects to be considered under the project following the selection criteria, together with the required attachments for approval.

4. A long list of tentative subprojects is attached.

Sl. No.	Subproject Title	Location	Quantity		Unit Cost MBDT <sup>a</sup>	Cost in MBDT	Cost (\$ million) <sup>b</sup>
<b>Sector: Urban and Disaster Management and Transport (partial)</b>							
<b>LGED Component: Phase I</b>							
1	Internal roads and stairs with drainage facilities inside the camps	33 camps in Ukhiya and Teknaf	30	km	10.00	300.00	3.66
2	Improvement of existing folia para road connecting highway to U-B Road (Pkg 1)	Ukhiya	3.5	km	12.00	42.00	0.51
3	Upgradation of existing N.I. Chowdhury Road connecting Marin Drive to U-B road (Pkg 2)	Ukhiya	16.5	km	12.00	198.00	2.41
4	Upgradation of existing link road connecting Coxsbazar-Teknaf and Marine Drive Highways (Pkg 3)	Ukhiya	11	km	12.00	132.00	1.61
5	Construction of small bridges in different roads to access the camps	Coxsbazar, Ukhiya	100	m	1.00	100.00	1.22
6	School-cum cyclone shelter, 3 story LGED Prototype,	7 in Ukhiya, 3 in Teknaf	10	no.	50.00	500.00	6.10
7	Hill slope protection inside mega camp	Ukhiya	5	km	150.00	750.00	9.15
8	Semi-permanent Food Distribution Centers and loading/unloading yard	Ukhiya, Teknaf	20	no.	2.00	40.00	0.49
9	Construction of Storm Water Drainage Network	Ukhiya, Teknaf	6	km	30.00	180.00	2.20
10	Monitoring of construction supervision	Coxsbazar	1	no.	100.00	100.00	1.22
<b>Contingency</b>							1.00
<b>A1. Subtotal LGED Phase I</b>							<b>29.56</b>
<b>LGED Component Phase II</b>							
1	Make-shift type cyclone center inside camps, steel structure, 3 story LGED Prototype	4 in Ukhiya, 1 in Teknaf	5	no.	50.00	250.00	3.05
2	Improvement of market sheds along the Coxsbazar Teknaf road	Ukhiya	11	no.	4.00	44.00	0.54
3	Reconstruction and rehabilitation of Union Roads (5 packages)	Ukhiya	12	km	10.25	123.00	1.50
4	Reconstruction and rehabilitation of Union Roads (2 packages)	Teknaf	8	km	10.25	82.00	1.00
5	Reconstruction and rehabilitation of Village Roads (6 Packages)	Ukhiya	30	km	10.33	309.90	3.78
6	Reconstruction and rehabilitation of Village Roads (4 Packages)	Teknaf	20	km	10.33	206.60	2.52
<b>A2. Subtotal: LGED Phase II</b>							<b>12.38</b>
<b>DPHE Component: Phase I</b>							
1	Mini-piped water supply system with Production Tube Well (chlorinated, solar powered groundwater based), 2 km pipe network, and 20 stand-pipe water distribution points (6 Packages)	All camps	60	no.	10.00	600.00	7.32
2	Integrated waste management (both fecal and solid waste) and resource recovery facility (with collection system)	Camp 15, Camp 8W, Camp 7, Ukhiya; and Shamlapur, Teknaf	2	no.	102.00	204.00	2.49

3	Construction of Surface Water Treatment Plant for supporting water supply, capacity 350 M <sup>3</sup> /hour, water intake from Bankhali River	Jilongza Union, Coxsbazar	1	no.	328.40	328.40	4.00
4	Develop surface water reservoirs and associated facility to expand the existing surface water treatment system from 300 to 450 m <sup>3</sup> per day for the displaced persons	Southern part of Mega camp	2	no.	480.00	480.00	5.85
5	Construction/upgradation of two pipe water systems including surface water treatment units for the camps in Teknaf	Shabalgan and Unchiprang, Teknaf	2	no.	400.00	800.00	9.76
6	Community bathing facility in camps for 15 females per bathroom	All camps	1,000	no.	0.20	200.00	2.44
7	Water Carrier for Emergency Water supply, capacity 3000 liters	Coxsbazar, Ukhiya, Teknaf	7	no.	6.00	42.00	0.51
8	Waste management equipment/vehicle (vacu-tag, suction pipe, solid waste removal equipment, drainage management equipment, etc.)	Coxsbazar, Ukhiya, Teknaf	30	no.	5.00	150.00	1.83
	<b>Contingency</b>						1.00
	<b>B1. Subtotal DPHE: Phase</b>						<b>35.20</b>
<b>DPHE Component: Phase II</b>							
1	Surface Water Treatment System and associated transmission and distribution system in Teknaf to be designed for 300,000 people	Nayaparha, Teknaf	2	no.	600.00	1,200.00	14.63
2	Integrated waste management (both faecal and solid waste) and resource recovery facility (with collection system) at Teknaf	Teknaf Pourashava	1	no.	2,200.00	2,200.00	26.83
	<b>B2. Subtotal DPHE: Phase2</b>						<b>41.46</b>
<b>Sector: Transport</b>							
<b>RHD Component: Phase I</b>							
1	Resurfacing of critical sections of major access road connecting Coxsbazar-Teknaf Link Road with the Camps						
2	Package 1: Coxsbazar to Ukhiya Bazar	Ukhiya	25	km	35.00	875.00	10.67
3	Package 2: Ukhiya Bazar to Palongkhali	Ukhiya	16	km	35.00	560.00	6.83
4	Package 3: Palongkhali to Whykong	Teknaf	19	km	35.00	665.00	8.11
5	Monitoring and supervision consulting services	Coxsbazar	1	no	82.00	82.00	1.00
	<b>Contingency</b>						0.39
	<b>C1. Subtotal RHD: Phase I</b>						<b>27.00</b>
<b>RHD Component: Phase II</b>							
1	Resurfacing of critical sections of major access road connecting Coxsbazar-Teknaf Link Road with the Camps: Whykong to Teknaf	Teknaf	20	km	35.00	700.00	8.54
	<b>C2. Subtotal RHD: Phase2</b>						<b>8.54</b>
<b>Sector: Energy</b>							
<b>BREB Component: Phase I</b>							
1	Construction of 33/11 KV (10 MVA) substation at Palongkhali (Ukhiya)	Ukhiya	1	unit	79.13	79.13	0.97
2	Construction of 11 KV & below line from proposed two substations to Palongkhali area	Ukhiya	50		1.98	99.22	1.21
3	Installation of BREB street lights inside the camps	Balukhali, Leda, and Noapara	4,000	units	0.01	59.04	0.72



4	Installation of mini-grid solar for household electricity supply within the camp (150 household per cluster: to cater 7500 HH)	Balukhali mega camp	50	units	1.845	92.25	1.13
5	Installation of lightening arresters along the access roads to Kutupalong camp from Palongkhali.	All camps	200	units	0.2	40	0.49
6	Installation of Solar powered 20 watts LED street lights,	All camps	2,000	units	0.06	120	1.46
7	Distribution of retained heat cookers to displaced persons at Balukhali mega camp	Ukhiya	100,000	units	0.0008	80	0.98
8	Design and implementation support consultant		1	no	41.00	41.00	0..78
<b>D1. Subtotal BREB: Phase I</b>							<b>8.25</b>
<b>BREB Component: Phase II</b>							
1	Construction and installation of 132/33 KV (50x2MVA) Grid Substation at Hnila, Teknaf	Hnila, Teknaf	1	unit	791.30	791.30	9.65
2	Construction of 132 KV Transmission line from Hnila to Coxsbazar	Hnila to Coxsbazar	55	km	14.82	815.08	9.94
3	Construction of 33/11 KV (10MVA) grid substation at Shyاملapur (Teknaf)	Teknaf	1	unit	79.13	79.13	0.97
4	Construction of 33 KV source line Hnila to Palongkhali and Hnila to Shyاملapur	Ukhiya to Teknaf	40	km	2.87	114.80	1.40
5	Distribution of solar lanterns including mobile chargers	All camps	50,000	units	0.005	250	3.05
<b>D2. Subtotal BREB: Phase2</b>							<b>25.00</b>
<b>Sector: Education and Health</b>							
<b>MOE/MOPME Component: Phase II</b>							
1	"Mobile" vocational training, LSB training, for adolescent people within the camp	Ukhiya and Teknaf	tbd	tbd	tbd	410.00	5
2	Community awareness program for Health and Safety and counselling services within the camp	Ukhiya and Teknaf	tbd	tbd	tbd	114.80	1.4
3	Multipurpose cyclone shelters and learning centers for vocational and technical trainings etc.	Ukhiya and Teknaf	12	No	25.00	300.00	3.66
4	Refurbishment of schools in affected areas (replacement of furniture and sanitation facilities in the affected schools used as shelters)	Ukhiya and Teknaf	15	No	0.20	3.00	0.04
5	Vocational and technical trainings	Ukhiya and Teknaf	4,000	students	0.04	147.60	1.80
6	Awareness campaign, training with counselling services	Ukhiya and Teknaf	1	No	30.00	30.00	0.37
7	Contractual / Recourse Teachers for high schools for 24 months	Ukhiya and Teknaf	50	No.	0.600	30.00	0.37
<b>E2. Subtotal MOE/MOPME Phase2</b>							<b>12.63</b>
<b>Total in Phase I: A1+B1+C1+D1 (works, consultants)</b>							<b>100.01</b>
<b>Total in Phase II: A2+B2+C2+D2</b>							<b>100.01</b>

<sup>a</sup> MBDT- Million Taka;

<sup>b</sup> Exchange Rate: \$1= BDT.

## PROCUREMENT PLAN

*(Procurement plan is tentative and will be updated upon finalization of subprojects).*

<b>Project Name:</b> Emergency Assistance Project		
<b>Project Number:</b> 52174-001	<b>Approval Number:</b>	
<b>Country:</b> Bangladesh	<b>Executing Agency:</b> Bangladesh Rural Electrification Board Department of Public Health Engineering, Local Government Engineering Department, Roads and Highways Department	
<b>Project Procurement Classification:</b> A	<b>Implementing Agency:</b> Bangladesh Rural Electrification Board, Department of Public Health Engineering, Local Government Engineering Department, Roads and Highways Department	
<b>Project Procurement Risk:</b> High		
<b>Project Financing Amount:</b> US\$ 120,000,000 <b>ADB Financing:</b> US\$ 100,000,000 <b>Cofinancing (ADB Administered):</b> N/A <b>Non-ADB Financing:</b> US\$ 20,000,000	<b>Project Closing Date:</b> 31 December 2020	
<b>Date of First Procurement Plan:</b> 26 June 2018	<b>Date of this Procurement Plan:</b> 26 June 2018	
<b>Procurement Plan Duration (in months):</b> 18	<b>Advance Contracting:</b> Yes	<b>e-GP:</b> Yes, e-GP shall be used for some transactions

### A. Methods, Review and Procurement Plan

1. Except as the Asian Development Bank (ADB) may otherwise agree, the following methods shall apply to procurement of goods, works, and consulting services

Procurement of Goods and Works	
Method	Comments
Open Competitive Bidding (OCB) for Goods and works, national advertisement	First two contracts of each type of procurement shall be prior reviewed for each implementing agency
Limited Competitive Bidding for Goods and works	First two contracts of each type of procurement shall be prior reviewed for each implementing agency
Request for Quotation for Goods and works	First two contracts of each type of procurement shall be prior reviewed for each implementing agency
Direct Contracting for Goods and works	All contracts – prior reviewed
Community Participation in Procurement - works	First two contracts of each type of procurement shall be prior reviewed for each implementing agency

Procurement of Consulting Services	
Method	Comments
Open Competitive Bidding (OCB) – national advertisement QCBS	80:20, STP, prior review
Limited Competitive Bidding - QCBS	80:20, STP, prior review
Open Competitive Bidding (OCB) – national advertisement - CQS	Prior review
Single Source Selection	All contracts – prior review
Individual Consultants Selection (National)	To be decided during inception

### B. Lists of Active Procurement Packages (Contracts)

2. The following table lists goods, works, and consulting services contracts for which the procurement activity is either ongoing or expected to commence within the procurement plan duration.

<b>Goods and Works</b>							
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (in US\$)</b>	<b>Procurement Method</b>	<b>Review</b>	<b>Bidding Procedure</b>	<b>Advertisement Date (quarter/year)</b>	<b>Comments</b>
BREB/W1	Supply, Installation, Testing & Commissioning of 33/11KV Sub-Station (10/14MVA, Turn Key) at Palongkhali, Ukhuya.	1,970,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD for Plant e-GP: No
BREB/W2	Construction of 50 KM of 11 KV and below lines with necessary transformers from proposed two substations to Palongkhali area, Ukhuya	1,210,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP document e-GP: Y Comments: once scope is clear, it will decided to use eGP or SBD -small works
BREB/W3	Supply and Installation 2000 units of BREB street lights (including flood lights and photocell lights) inside the camps Balukhali, Leda and Noapara	720,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD goods or e-GP e-GP: Y Comments: decision to use eGP or manual bidding shall be made once scope is clear
BREB/G1	Supply and installation of 200 nos. lightning arresters along the access roads from Palongkhali to Kutupalong camp, and all other camps.	240,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP documents e-GP: Y
BREB/G2	Supply and installation of 4,000 nos. solar powered 20-watt LED street lights, in all camps	1,430,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD -Goods or e-GP e-GP: Y Comments: decision to use eGP or manual bidding shall be made once scope is clear
BREB/G3	Supply and distribution of 35,000 retained heat cookers to the displaced people at all camps: Group 1	480,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Goods e-GP: Y
BREB/G4	Supply and distribution of 35,000 retained heat cookers to the displaced people at all camps: Group 2	480,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Goods e-GP: Y

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
BREB/G5	Supply and installation of 50 nos. solar mini-grid for household electricity supply within the camp (150 household per cluster: to cater 7,500 HH) at Balukhali mega camp	1,130,000.00	OCB	Prior	1S1E	Q4/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB SBD-Goods or eGP documents e-GP: Y Comments: DD required Comments: decision to use eGP or manual bidding shall be made once scope is clear
DPHE/G1	Supply of 7 no. water Carrier for Emergency Water supply, capacity 3000-liter, including operation for 2 years, for Coxsbazar and Ukhiya, Teknaf	1,200,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: eGP documents e-GP: Y Comment: ADB SBD for Goods may be used
DPHE/G2	Supply and operation of waste management equipment/vehicle for two years. (Vacuu tag, Suction pipe, SWR equipment, drainage management equipment) for Camps in Ukhiya	1,000,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: eGP documents e-GP: Y Comment: ADB SBD for Goods may be used
DPHE/G3	Supply and operation of waste management equipment/vehicle for two years. (Vacuu tag, Suction pipe, SWR equipment, drainage management equipment) for Camps in Teknaf	790,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: eGP e-GP: Y Comment: ADB SBD for Goods may be used
DPHE/W1	Construction and operation of 7 nos. mini piped water supply system with Production Tube Well: (chlorinated, solar powered ground water based) with 2 km Pipe Network, and 20 stand-pipe water distribution points in all camps and adjacent affected villages. Group -1	1,200,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: eGP documents e-GP: Y Comment: ADB SBD for small Works may be used
DPHE/W2	Construction and operation of 7 nos. mini piped water supply system with Production Tube Well: Group -2	1,200,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: eGP documents e-GP: Y Comment: ADB SBD for small Works may be used

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
DPHE/W3	Construction and operation of 7 nos. mini piped water supply system with Production Tube Well: Group-3	1,200,000.00	OCB	Post	1S1E	Q3 / 2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: eGP documents e-GP: Y Comment: ADB SBD for small Works may be used
DPHE/W4	Construction and operation of mini 7 nos. piped supply system with Production Tube Well: Group-4	1,200,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: eGP documents e-GP: Y Comment: ADB SBD for small Works may be used
DPHE/W5	Construction and operation of mini 7 nos. piped water supply system with Production Tube Well: Group -5	1,200,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP document e-GP: Y Comment: ADB SBD for small Works may be used
DPHE/W6	Construction and operation of mini 7 nos. piped water supply system with Production Tube Well: Group -6	1,320,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP document e-GP: Y Comment: ADB SBD for small Works may be used
DPHE/W7a	Construction and operation of 2 Integrated waste management (both faecal and solid waste), and resource recovery facilities with collection system at the outskirts of Kutupalong Balukhali Megacamp, Ukhiya Group-1	1,000,000.00	OCB	prior	1S1E	Q4/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Small Works or e-GP e-GP: Y Comments: Detailed Design (DD) required
DPHE/W7b	Construction and operation of 2 Integrated waste management (both faecal and solid waste), and resource recovery facilities with collection system at the outskirts of Kutupalong Balukhali Megacamp, Ukhiya Group-2	1,000,000.00	OCB	prior	1S1E	Q4/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP e-GP: Y Comments: DD required; ADB-SBD Small Works may be used

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
DPHE/W8	Construction and operation of Integrated waste management (both faecal and solid waste), and resource recovery facility with collection system at the outskirts of Shamlapur, Teknaf: Group-3	440,000.00	OCB	Prior	1S1E	Q4/ 018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Small Works e-GP: Y Comments: DD required; ADB-SBD Small Works may be used
DPHE/W9	Construction of Surface Water Treatment Plant for supporting water supply at Coxsbazaar city and surrounding areas, Capacity 350 M <sup>3</sup> /hour, water intake from Bankhali River Jilongza union, Coxsbazar	3,920,000.00	OCB	Prior	1S1E	Q4/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Small Works e-GP: Y Comments: DD required
DPHE/W10	Construction of surface water reservoirs and associated facility (surface water treatment system) 300 m <sup>3</sup> to 450 m <sup>3</sup> per day for the displaced people and host community at Ukhiya	5,730,000.00	OCB	Prior	1S1E	Q1/2019	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Small Works e-GP: Y Comments: DD required
DPHE/W11	Construction/ upgradation of pipe water systems including surface water treatment units for the camps in Shamlapur, Teknaf	5,000,000.00	OCB	Prior	1S1E	Q1/2019	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Small Works e-GP: Y Comments: DD required
DPHE/W12	Construction/ upgradation of pipe water systems including surface water treatment units for the camps in Unchipran, Teknaf	4,500,000.00	OCB	Prior	1S1E	Q1/2019	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Small Works or eGP e-GP: Y Comments: DD required
DPHE/W13	Construction of community bathing facility in camps for 15 females per bathroom in all camps Group -1	500,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP document e-GP: Y Comments: prototype Design Available

<b>Goods and Works</b>							
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (in US\$)</b>	<b>Procurement Method</b>	<b>Review</b>	<b>Bidding Procedure</b>	<b>Advertisement Date (quarter/year)</b>	<b>Comments</b>
DPHE/W14	Construction of community bathing facility in camps for 15 females per bathroom in all camps Group -2	500,000.00	OCB	Prior	1S1E	Q3 / 2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP documents e-GP: Y
DPHE/W15	Construction of community bathing facility in camps for 15 females per bathroom in all camps Group - 3	500,000.00	CB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: or e-GP documents e-GP: Y
DPHE/W16	Construction of community bathing facility in camps for 15 females per bathroom in all camps Group - 4	500,000.00	OCB	Post	1S1E	Q3/ 018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP documents e-GP: Y
DPHE/W17	Construction of community bathing facility in camps for 15 females per bathroom in all camps Group - 5	390,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP documents e-GP: Y
LGED/W1a	Construction of 7.5 km Internal Roads and Stairs with Drainage Facilities Inside the camps in Ukhiya, Group 1	895,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP documents e-GP: Y
LGED/W1b	Construction of 7.5 km Internal Roads and Stairs with Drainage Facilities Inside the camps. in Ukhiya, Group 2	895,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP documents e-GP: Y
LGED/W2a	Construction of 7.5 km Internal Roads and Stairs with Drainage Facilities Inside the camps. in Teknaf - Group 1	895,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP document e-GP: Y

<b>Goods and Works</b>							
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (in US\$)</b>	<b>Procurement Method</b>	<b>Review</b>	<b>Bidding Procedure</b>	<b>Advertisement Date (quarter/year)</b>	<b>Comments</b>
LGED/W2b	Construction of 7.5 km Internal Roads Internal Roads and Stairs with Drainage Facilities Inside the camps in Teknaf – Group 2	895,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP documents e-GP: Y
LGED/W3	Improvement of 1.5 km existing Folia Para road connecting Highway to U-B Road Ukhiya	262,800.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP documents e-GP: Y
LGED/W4a	Upgradation of existing N.I. Chowdhury Road Connecting Marine Drive to U-B road, including construction of Bridge/ culverts at Ukhiya Group 1: Ch 0+00 km to 10+00 km	3,402,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP documents e-GP: Y Comments: DD required for bridges
LGED/W4b	Upgradation of existing N.I. Chowdhury Road Connecting Marine Drive to U-B road, including construction of Bridge/ culverts at Ukhiya Group 2: Ch 10+00 km to 19+60 km	3,628,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP documents e-GP: Y Comments: DD required for bridges
LGED/W5	Upgradation of existing 8.8 km link road connecting Coxsbazar-Teknaf and Marine Drive Highways, Ukhiya	3,207,300.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP documents e-GP: Y Comments: DD required for bridges
LGED/W6	Construction of 4 nos. school cum cyclone shelter for affected people, 3 story LGED Prototype, in Ukhiya	2,389,500.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP documents e-GP: Y
LGED/W8	Construction of 4 nos. school cum cyclone shelter for affected people, 3 story LGED Prototype, in Ukhiya	1,792,100.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP documents e-GP: Y



Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
LGED/W9	Construction of 3 nos. School cum cyclone shelter for affected people, 3 story LGED Prototype, in Teknaf	1,792,100.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP bid documents e-GP: Y
LGED/W10	Hill Slope Protection Works inside the Kutupalong Balukhali Mega Camp, Ukhiya Group -1	1,000,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Small Works or e-GP e-GP: Y Comments: DD required
LGED/11	Hill Slope Protection Works inside the Kutupalong Balukhali Inside Mega Camp Ukhiya Group -2	1,000,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Small Works or e-GP e-GP: Y Comments: DD required
LGED/W12	Hill Slope Protection Works inside the Kutupalong Balukhali Inside Mega Camp Ukhiya Group -3	1,000,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Small Works or e-GP e-GP: Y Comments: DD required
LGED/W13	Hill Slope Protection Works inside the Kutupalong Inside Mega Camp Ukhiya Group -4	1,000,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Small Works or e-GP e-GP: Y Comments: DD required
LGED/W14	Hill Slope Protection Inside Mega Camp Ukhiya Group -5	1,000,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Small Works or e-GP e-GP: Y Comments: DD required
LGED/W15	Hill Slope Protection Works inside the Kutupalong Balukhali Mega Camp, Ukhiya Group -6	1,000,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Small Works or e-GP e-GP: Y Comments: DD required
LGED/16	Hill Slope Protection Works inside the Kutupalong Balukhali	1,000,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
	Inside Mega Camp Ukhiya Group -7						Domestic Preference Applicable: N Bidding Document: ADB-SBD Small Works or e-GP e-GP: Y Comments: DD required
LGED/W17	Hill Slope Protection Works inside the Kutupalong Balukhali Inside Mega Camp Ukhiya Group -8	1,000,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Small Works or e-GP e-GP: Y Comments: DD required
LGED/W18	Hill Slope Protection Works inside the Kutupalong Inside Mega Camp Ukhiya Group -9	1,000,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Small Works or e-GP e-GP: Y Comments: DD required
LGED/W19	Construction of Semi-Permanent Food Distribution Centers and loading /unloading yard in Ukhiya and Teknaf	480,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP documents e-GP: Y
LGED/W20	Construction of Storm Water Drainage Network inside camps and evacuating water outside camps, 2 groups in Ukhiya	1,200,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP documents e-GP: Y Comments: DD required
LGED/W21	Construction of Storm Water Drainage Network inside camps and evacuating water outside camps: 1 group in Teknaf	950,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: e-GP bid documents e-GP: Y Comments: DD required
RHD/W1	Reconstruction of critical sections of major access road connecting Coxsbazar Link road - Teknaf with the Camps, Package 1: Coxsbazar link road to Court Bazar	11,500,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD large works e-GP: NO
RHD/W2	Reconstruction of critical sections of major access road connecting Coxsbazar Link Road - Teknaf with the Camps,	8,500,000.00	OCB	Prior	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-

<b>Goods and Works</b>							
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (in US\$)</b>	<b>Procurement Method</b>	<b>Review</b>	<b>Bidding Procedure</b>	<b>Advertisement Date (quarter/year)</b>	<b>Comments</b>
	Package 2: Court Bazaar to Palongkhali						SBD Small or Large works e-GP: Y
RHD/W3	Reconstruction of critical sections of major access road connecting Coxsbazar Link Road - Teknaf with the Camps, Package 3: Palongkhali to Nhila Teknaf	5,500,000.00	OCB	Post	1S1E	Q3/2018	Advertising: National No. of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Bidding Document: ADB-SBD Small or Large works e-GP: Y

**Consulting Services**

<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (in US\$)</b>	<b>Selection Method</b>	<b>Review</b>	<b>Type of Proposal</b>	<b>Advertisement Date (quarter/year)</b>	<b>Comments</b>
BREB/CON 1	Design and implementation support consultant	780,000.00	QCBS	Prior	STP	Q3 / 2018	Type: Firm Assignment: OCB, National advertisement Quality-Cost Ratio: 80:20 Advance Contracting: Y e-GP: N Comments: LCB or SSS may be used subject to discussion with the executing agency during inception.
DPHE/CON 1	Design, Monitoring and Supervision consulting services of DPHE component, Coxsbazar	500,000.00	QCBS	Prior	STP	Q3 / 2018	Type: Firm Assignment: OCB National advertisement Quality-Cost Ratio: 80:20 Advance Contracting: Y e-GP: N Comments: LCB or SSS may be used subject to discussion with the executing agency during inception.
LGED/CON 1	Design, Monitoring and Supervision consulting services through ICT for LGED component, Coxsbazar	836,000.00	QCBS	Prior	STP	Q3 / 2018	Type: Firm Assignment: OCB National advertisement Quality-Cost Ratio: 80:20 Advance Contracting: Y e-GP: N Comments: LCB or SSS may be used subject to discussion with the executing agency during inception.
RHD/CON1	Design, Monitoring and supervision consulting services for RHD component, Coxsbazar	785,000.00	QCBS	Prior	STP	Q3 / 2018	Type: Firm Assignment: OCB National advertisement Quality-Cost Ratio: 80:20 Advance Contracting: Y e-GP: N Comments: LCB or SSS may be used subject to discussion with the executing agency during inception.

### C. List of Indicative Packages (Contracts) Required Under the Project

3. The following table lists goods, works, and consulting services contracts for which procurement activity is expected to commence beyond the procurement plan duration and over the life of the project (i.e., those expected beyond the current procurement plan duration).

<b>Goods and Works</b>						
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (in US\$)</b>	<b>Procurement Method</b>	<b>Review</b>	<b>Bidding Procedure</b>	<b>Comments</b>
None						

<b>Consulting Services</b>						
<b>Package Number</b>	<b>General Description</b>	<b>Estimated Value (in US\$)</b>	<b>Selection Method</b>	<b>Review</b>	<b>Type of Proposal</b>	<b>Comments</b>
None						

## OUTLINE TERMS OF REFERENCE OF CONSULTANTS

### A. Consultants

The terms of reference (TOR) briefly indicate the qualification and experience requirements of experts and the tasks to be performed. It is envisaged that four specialist firms will be engaged to assist the project implementation units of each executive agency. Firms will be recruited following limited competitive bidding. An overview of the consultancy inputs and type of expertise required by project output and implementing agencies are shown in Table 1 and 2. Tentative detailed TORs will be discussed in subsequent paragraphs of this Appendix. The team composition and terms of reference are preliminary and will be further reviewed and finalized before start of the recruitment process.

**Table 1: Summary of Consultants**

Project Output	Implementing Agency	Firm (Key Person-Months)
Output 1: Water Supply and Sanitation	DPHE	88
Output 2: Disaster Risk Management	LGED	36
Output 3: Energy Supply	BREB	24
Output 4: Access Roads	RHD	60
Output 4: Internal Roads and Drainage	LGED	58
<b>Total</b>		<b>266</b>

BREB= Bangladesh Rural Electrification Board; DPHE= Department of Public Health Engineering; LGED= Local Government Engineering Department; RHD= Roads and Highways Department

**Table 2: Summary of Consultant Positions**

Executing Agency	Name of Expert (Number)	Individual/ Firm	Key Person-Month (PM)
DPHE	Team Leader/ Sr. Water Supply and Sanitation Engineer (1)	Firm	18
	Solid Waste Management Expert (1)	Firm	12
	Sanitation and Faecal Sludge/Waste Water Expert (1)	Firm	15
	Structural Design Engineer (1)	Firm	15
	Procurement Expert (1)	Firm	6
	Quality Control Engineer (1)	Firm	10
	Environmental Engineer (1)	Firm	4
	Environmental Safeguard Specialist (1)	Firm	4
LGED	Social Safeguard Specialist (1)	Firm	4
	Team Leader/Senior Municipal Engineer (1)	Firm	18
	Drainage and Storm Water Management Specialist (1)	Firm	12
	Procurement Expert (1)	Firm	6
	Quality Control Engineer (1)	Firm	6
	Environmental Engineer (1)	Firm	4
	Environmental Safeguard Specialist (1)	Firm	3
	Social Safeguard Specialist (1)	Firm	3
	Social Development Specialist (GAD) (1)	Firm	6
	Cyclone Shelters Structural Engineer (1)	Firm	6
	Storm Water Hydrologist: (1)	Firm	6
	Design/Structural Engineer (Road/Storm water Drain/Slope Protection/Food Distribution Centre (1)	Firm	12
Disaster Risk Management Specialist (1)	Firm	12	
BREB	Renewable Energy Expert/ Micro-grid Expert or Team leader (1)	Firm	6
	Electrical Engineer (1)	Firm	4
	Retain heat cooker expert (1)	Firm	1
	Power System Expert (1)	Firm	2
	Electrical engineer/ Substation design engineer (1)	Firm	2
	Procurement Specialist (1)	Firm	3
	Civil Engineer (1)	Firm	3
Environmental and Social Safeguard Management Expert (1)	Firm	3	
RHD	Team Leader/ Senior Highway Engineer (1)	Firm	18
	Senior Resident Engineer/ Quality Control/ Material Engineer (Road) (1)	Firm	12

<b>Executing Agency</b>	<b>Name of Expert (Number)</b>	<b>Individual/ Firm</b>	<b>Key Person- Month (PM)</b>
	Senior Contract/ Procurement Specialist (1)	Firm	6
	Senior Bridge Engineer (1)	Firm	4
	Environment Specialist (1)	Firm	4
	Social Development (GAD) Specialist (1)	Firm	4
	Quantity Engineer (Road)	Firm	12

**TERMS OF REFERENCE**  
**Design, Monitoring, and Supervision Consultants**  
**Output 1: Water Supply and Sanitation**  
**Agency: Department of Public Health Engineering**

(The team composition and terms of reference are preliminary and will be further reviewed and finalized before start of the recruitment process).

**A. Scope of Service**

The consultants will directly work with Department of Public Health Engineering (DPHE) to deliver output 1 of the project related to Water Supply and Sanitation, which will cover the following interventions:

- (i) Mini piped water supply system with production tube-well (chlorinated, solar powered groundwater based), pipe network, and stand-pipe water distribution points - 30 km;
- (ii) Integrated waste management (both faecal and solid waste), and resource recovery facility with collection system at the outskirts of the camps - 2 nos;
- (iii) Construction of surface water treatment plant for supporting water supply at Coxsbazar city and surrounding areas, capacity 350 m<sup>3</sup>/hour, water intake from Bankhali river - 1 no;
- (iv) Develop surface water reservoirs and associated facility to expand the existing surface water treatment system from 300 to 450 m<sup>3</sup> per day for the displaced persons;
- (v) Construction/ upgradation of pipe water systems including surface water treatment units for the camps in Shamlapur and Unchiprang, Teknaf- 2 nos.;
- (vi) Community Bathing facility in camps (for 15 females per bathroom)- 1,000 nos;
- (vii) Supply of Water Carrier (capacity 3000 liter) for Emergency Water supply - 7 nos;
- (viii) Supply of Waste Management Equipment/vehicle (Vacuu tag, suction pump and pipe, etc.) - 30 nos.

For design, construction and supervision and smooth implementation of above packages, DPHE will recruit a firm following QCBS, 80:20, STP/BTP selection method and using limited competitive bidding procedures.

A total of 88 person-months of key experts and 204 person-months of non-key expert inputs will be required to complete all the activities of output 1. The summary of consultant requirement is in Tables 3 and 4, and the Terms of References (TORs) of individual key experts are described in section B.

**Table 3: Summary of Key Experts**

<b>Particulars</b>	<b>Person-month</b>
Team Leader/ Sr. Water Supply and Sanitation Engineer	18
Solid Waste Management Expert	12
Sanitation and Faecal Sludge/Waste Water Expert	15
Structural Design Engineer	15
Procurement Expert	6
Quality Control Engineer	10
Environmental Engineer	4
Environmental Safeguard Specialist	4
Social Safeguard Specialist	4
<b>Total Key Experts</b>	<b>88</b>

## B. Team Composition

### DPHE/K1: Team Leader and Senior Water Supply and Sanitation Engineer (1 national, 18 months)

#### Qualification and Experience

The Senior Water Supply & Sanitation Engineer will have post-graduate degree in Civil Engineering with specialization in drinking water supply and source development (ground and surface water) with over 15 years of experience in planning, design, operation, management and supervision of water supply and sanitation activities and having 10 years of practical experience in urban water supply and sanitation in Bangladesh and elsewhere in the developing countries. Design experience of water supply sub projects will be considered as added advantage.

#### Duties and Responsibilities

The duties and responsibilities of the Senior Water Supply & Sanitation will include but not limited to the following:

- (i) Assist the team leader about water supply and sanitation activities under the project;
- (ii) Assist in selection of water supply/sanitation sub-projects following sub-project selection criteria of the project;
- (iii) Assist PIUs in planning, design and construction of production well, treatment plants, overhead tanks, pipe network system, iron and arsenic removal plants, prepare specifications, bid documents, drawings, etc.;
- (iv) Work closely with environmental resilient specialist to incorporate adaptation measures into water supply designs, with focus on salinity intrusion into ground and surface waters;
- (v) Help conducting survey for location of Surface Water Treatment Plants, Production Tube Wells and stand pipes;
- (vi) Prepare feasibility study, detailed engineering designs, including specifications, drawings, and detailed cost estimates for water supply components
- (vii) Assist in preparation of bidding documents, bill of quantities and conducting bidding and contract award
- (viii) Monitor and supervise the works as the per the detailed design and contract requirement
- (ix) Prepare guidelines for organizing community, establish operation and management mechanism for long time sustainability of the services;
- (x) Develop mechanism for identification of water supply system leak detection and leak management to prevent water losses;
- (xi) Assist PIU in identification of proper places for Community Bathing Facilities, transfer station and sludge disposal;
- (xii) Assess appropriate O&M arrangements to ensure sustainable operation of the facilities to be built and incorporate them in the bid documents;
- (xiii) Assist project management unit (PMU) and PIUs in developing leaflets, brochures, posters, etc. for public awareness campaign for better hygiene;
- (xiv) Impart training to related PIU staffs for successful O&M of water supply network;
- (xv) Perform any other task assigned by the Project Director.



**DPHE/K2: Solid Waste Management Expert (1 National, 12 Months)****Qualification and Experience**

The expert is preferred to have a Master's degree in civil or environmental engineering or related discipline; and (ii) a minimum of 10 years' relevant project experience involving SWM including planning, design and implementation.

**Duties and Responsibilities**

The duties and responsibilities of the expert will include but not limited to the following:

- (i) Lead technical and socioeconomic analysis and preparation of solid waste management feasibility study Identify the suitable/appropriate interventions (both hard and soft) propose the implementation process stemming from climate-resilient integrated waste management.
- (ii) Prepare detailed engineering design (in difficult terrain/slope etc.), specifications, drawings, and detailed cost estimates and operation and maintenance arrangements.
- (iii) Propose an institutional and implementation modality for construction and O&M, such as service contracts, build-operate, and performance-based contract, with special attention to sustainability and the scope of private sector/community/NGO involvement.
- (iv) Work out a strategy for community-based solid waste management including collection mechanism particularly in low income areas
- (v) Explore the viability for developing regional treatment and/or disposal facilities involving towns and/or urban centers of near proximities.
- (vi) Propose an appropriate procurement plan/mechanism for the solid waste management components.
- (vii) Lead the preparation of the model bidding documents and management contracts as appropriate
- (viii) Provide orientation and training to the concerned on solid waste management process, it's socio economic viability, overall environmental improvement and importance from climate resilience aspects.
- (ix) Work closely with the other experts as required

**DPHE/K3: Sanitation and Faecal Sludge/Waste Water Expert (1 National, 15 Months)****Qualification and Experience**

The expert will be preferably a graduate in municipal/civil engineering, with at least 15 years working experience in sanitation and waste management. The Specialist work closely with the SWM expert to design sanitation and integrated waste management subprojects. He/she should have good communication skills, be familiar with participatory approaches to project design and implementation and can assist in the capacity building and training programs.

**Duties and Responsibilities**

The expert will perform the following tasks:

- (i) Assess the existing sanitation systems and the projected quantity and quality of effluent
- (ii) Identify problems and opportunities for the provision, operation and management of a sustainable waste management system
- (iii) Select appropriate sanitation technology options and preferred options including design criteria for (i) septic tanks and de-sludging; and (b) pit latrines and de-sludging; integrated resource recovery with SWM as appropriate
- (iv) Prepare detailed design for sludge disposal site and for maximizing opportunities for sludge after-use;

- (v) Collect and test waste water sample of the study area and analyze them for identifying the appropriate management technologies/mechanism;
- (vi) Develop detailed design of the system, specification, bill of quantities and cost estimate
- (vii) Prepare detailed cost estimates and specifications for proposed sanitation equipment
- (viii) Prepare operation and maintenance (O&M) options and a preferred option for implementing the proposed improved sanitation/waste management system;
- (ix) Prepare Sanitation System Manuals for sustainable sanitation system involving private/community/NGO managed O&M system
- (x) Support the development of Community Consultation Plans and participate in consultations with any Stakeholder Committees that may be established during the subproject implementation

#### **DPHE/K4: Structural Design Engineer (1 National, 15 months)**

##### **Qualification and Experience**

The Structural Engineer will have first class degree in civil engineering with over 15 years' experience in the field of design of civil works in Bangladesh or any other developing country. 7 years' practical experience in designing urban and related civil works will be essential.

##### **Duties and Responsibilities**

The duties and responsibilities of the Sr. Structural and Design Engineer will include, but not limited to the following:

- (i) Work under the general supervision and guidance of the Team Leader;
- (ii) Produce detailed situation reports for the subproject area internal road network including the design
- (iii) Help PMU and PIUs in the structural design of civil construction works that includes roads, Surface water drains and other relevant structures required for ensuring smooth communications within the camp and safe evacuation from the camps;
- (iv) Collect relevant data, information related to structural design of schemes included in the priority list of structures;
- (v) Develop solutions that would give help to pedestrians and improve the road side drainage
- (vi) Undertake detailed design, prepare design reports for the sub-project;
- (vii) Develop climate resilient design including the choice of materials, durability considering quick construction/rehabilitations
- (viii) Prepare bidding documentation, advise on the selection of contractors and other companies/agencies essential to implementing the subproject proposals and for all procurement related matters
- (ix) Assist in the preparation of detailed estimate and bill of quantities;
- (x) Device computer-based design module using standard updated software and help to train PIU and PMU staff in using Auto CAD/other design software;
- (xi) Check/inspect sites that need special attention
- (xii) Conduct community consultation and participation of the community in the upgrading of roads facilities; and
- (xiii) Perform any other task assigned by the Team Leader, Deputy Team Leader and the Project Director.

#### **DPHE/K5: Procurement Expert (1 National, 6 months)**

##### **Qualification and Experience**

The expert will be preferably graduate in engineering, civil engineering, or similar / relevant discipline with a minimum of 10 years working experience in procurement and contract management. He/she will be responsible for carrying out the following the following principle tasks:

- (i) Collate and review technical specifications and work with experts to devise evaluation criteria
- (ii) Prepare rate analyses for all bill of quantities and engineering estimates for all project components
- (iii) Assist client in updating the project procurement plan and advise client to ensure timeliness of procurement processes
- (iv) Familiarity with ADB procurement process for procurement in emergency and disaster management projects
- (v) Advise and support client in obtaining ADB and government approval of procurement processes
- (vi) Preparing bidding documents and assist client in tender evaluation, award and management of contracts ensuring compliance with applicable ADB and government procurement guidelines
- (vii) Prepare contract documents and assist the EA in the bidding process and contract award

#### **DPHE/K6: Quality Control Engineer (1 National, 10 months, Intermittent)**

##### **Qualification and Experience**

The Quality Control Engineer will have degree in civil engineering with Masters in relevant field from any recognized university. and have 15 years' experience in quality control activities of civil work with 10 years' experience of quality control activities in urban civil work in Bangladesh and developing countries. Experience to work in quality control laboratories will get preference.

##### **Duties and Responsibilities**

The duties and responsibilities of the Quality Control Engineer will include, but not limited to the following:

- (i) Work under the general supervision and guidance of the Team Leader and Sr. Structural Engineer;
- (ii) Ensure quality control/assurance of ongoing and completed civil works;
- (iii) Prepare annual work plan for supervision and monitoring of civil work;
- (iv) Undertake regular field visits to all sub-projects to review implementation and supervision of subproject physical works, to confirm that specified quality standards are being achieved. Contribute to resolving any QC/QA issues;
- (v) Prepare and manage/participate in programs for on-site audit checks during the execution of physical works (construction and maintenance), of quality and quantity control, and provide advice on remedial actions as required
- (vi) Arrange laboratory testing of materials used for construction work in LGED laboratories/ elsewhere, as required;
- (vii) Arrange field testing of construction materials/activities;
- (viii) Design monitoring procedures/formats for quality control/assurance of civil work;
- (ix) Collect, compile and analyze test results of civil work and submit reports to the PMU;
- (x) Identify deviations from the standard specifications/quality of civil work and arrange rectification of the same, as required;
- (xi) Certify final bills regarding quality compliance;
- (xii) Train PIU staff/contractors to ensure quality;
- (xiii) Assist PIUs to establish mobile maintenance team; and

- (xiv) Perform any other task assigned by the Team Leader, Deputy and the Project Director.

### **DPHE/K7: Environmental Engineer (1 National, 4 months)**

#### **Qualification and Experience**

He/she will have post-graduate degree in Civil/Environmental Engineering, or related degree with over 12 years of experience, of which preferably 10 years involved in planning and design of environmental resilient infrastructure projects, preferably in water supply, waste management, roads and drainage, hill slope protection and will have a preferably 6 years proven work experience and skill in similar positions.

He/she will be responsible of the following:

- (i) Assist the team in incorporating environmental resilience into detailed designs of subprojects, particularly for water supply, waste management and drainage subprojects such as location of intakes, depth of production wells, width and orientation of drains and slope protection mechanisms.
- (ii) Assist the PMUs/PIUs in the selection of eligible subprojects using subproject selection criteria
- (iii) work closely with water supply and drainage engineers and other experts on team to incorporate adaptation and mitigation measures into both physical and non-physical components
- (iv) Work closely with the engineers to identify, quantify, and clearly report the incremental costs of climate adaptation and mitigation in the project design

### **DPHE/K8: Environmental Safeguard Specialist (1 national, 4 months, intermittent)**

#### **Qualification and Experience**

Graduate in Civil Engineering with specialization in environment or similar / relevant discipline with at least 10 years of relevant working experience.

#### **Duties and Responsibilities**

He/she will assist and be responsible for implementing the following principle tasks:

- (i) Prepare Initial Environmental Examination (IEE)/Environmental Impact Assessments (EIA) in accordance with the Environmental Assessment Review Framework (EARF) for subprojects
- (ii) Ensure all Environmental Management Plan (EMP) measures are included in contract documents
- (iii) Ensure compliance with all relevant national laws
- (iv) Interact with the sector specialists and integrate environmentally sound practices into the detailed design of project components;
- (v) Work out the site-specific mitigation and adaptation measures for components as required and integrate the same into contractual provisions;
- (vi) Assist the Environmental Resilient Specialist in environmental training programs and workshops for the staffs of the PIU and contractors
- (vii) Prepare activity plans as identified in IEE (includes site management plans, waste management plans, sludge management and disposal plans, occupational safety plans, etc.);
- (viii) Supervise the implementation of the EMP by the contractors;
- (ix) Prepare quarterly environmental monitoring reports as required;
- (x) Assist in providing occupational health and safety training for contractors' personnel before commencement of civil works for all sub-projects

- (xi) Establish dialogue with the affected communities and ensure that the environmental concerns and suggestions are incorporated and implemented in the project;
- (xii) Facilitate in responding to any public grievances

### **DPHE/K9: Social Safeguard Specialist (1 national, 4 months, intermittent)**

#### **Qualification and Experience**

Graduate in sociology, social anthropology or similar/ relevant discipline with at least 10 years of relevant working experience in design and implementation of resettlement plans and framework. The specialist should be well conversant with laws relating to land acquisition, state procedures in implementation of resettlement packages and ADB procedures.

#### **Duties and Responsibilities**

He/she will be implementing the following tasks:

- (i) Prepare Due-diligence reports (DDR) in accordance with Resettlement Framework (RF) for the subprojects as needed;
- (ii) Establish dialogue with the affected communities and ensure that their concerns and suggestions are incorporated and implemented in the project;
- (iii) Submit all draft DDR to ADB for review and clearance before contract award
- (iv) If Involuntary Resettlement triggers, work closely with the PMUs/PIU to implement the Resettlement Plan (RP) and specifically responsible for implementation of proposed compensation, rehabilitation, and income restoration measures, consultations with affected persons (APs) during rehabilitation activities, and assisting in grievance redress;
- (v) Ensure compliance with all Government rules and regulations and ensure that DDR/RP is compliant with ADB's SPS-2009;
- (vi) Lead community consultation during design phase of components and as part of the preparation of the RP;
- (vii) Coordinate monitoring of RP implementation including reporting;
- (viii) Prepare resettlement training programs and workshops for the staff of the PIU and contractors;
- (ix) Facilitate in responding to any public grievances and keep the record of all the grievance

**Table 4: Summary Non-Key Expert**

<b>Expert Code</b>	<b>Title of Expert</b>	<b>Require Qualification</b>	<b>No. of Expert</b>	<b>Total Person-Month</b>
DPHE/SS 01	Construction Supervision Engineer	<ul style="list-style-type: none"> <li>• Bachelor's degree in civil/material engineering</li> <li>• 8 years of professional experience</li> <li>• 5 years of in construction supervision of civil works</li> </ul>	2	72
DPHE/SS 02	Quantity Surveyors	<ul style="list-style-type: none"> <li>• Bachelor's degree in civil engineering</li> <li>• 8 years of professional experience</li> <li>• 5 years in quantity survey, cost estimate and bill of quantities preparation</li> </ul>	1	24
DPHE/SS 03	Financial Management Expert	<ul style="list-style-type: none"> <li>• Bachelor's degree in accounting</li> <li>• additional qualifications in finance</li> <li>• 7 years of professional experience</li> <li>• Must have at least 2 years of experience of working in ADB or other (WB/IsDB/JICA) externally assisted projects in disbursement and finance areas</li> </ul>	1	18
DPHE/SS 04	Office Manager	<ul style="list-style-type: none"> <li>• Diploma in civil Engineering</li> <li>• 8 years of professional experience</li> <li>• 5 years as CAD technician</li> </ul>	1	24

DPHE/ SS 05	CAD Technicians	<ul style="list-style-type: none"> <li>• Diploma in civil Engineering</li> <li>• 8 years of professional experience</li> <li>• 5 years as CAD technician</li> </ul>	1	12
DPHE/ SS 06	Laboratory Technicians	<ul style="list-style-type: none"> <li>• H.S.C in science background</li> <li>• 3 years of professional experience as a laboratory technician</li> </ul>	1	18
DPHE/ SS 07	Assistant Laboratory Technicians	<ul style="list-style-type: none"> <li>• H.S.C in science background</li> <li>• 1 years of professional experience as a laboratory technician</li> </ul>	1	36
<b>Sub-Total=</b>			<b>8</b>	<b>204</b>

Note: 1. CVs of all key experts shall be evaluated and scored.  
2. Consultants shall propose 8 non-key experts to complete the assignment based on the requirements provided in the TORs. The consultant is required to submit CV of non-key experts with the proposal, however, the CVs will not be scored but evaluated on fail/pass criteria.

Two non-key expert positions require specific TORs as follows:

### **Non-key Expert DPHE/SS 01: Construction Supervision Engineers (2 Nationals, 36 months)**

#### **Qualification and Experience**

Bachelor's degree in civil engineering preferably with Masters in equivalent field from any recognized university. Preferred 10 years of work experience of which 7 years' extensive supervision experience of the implementation of infrastructure projects. He/she will be responsible for the following tasks:

- (i) Supervise the day-to-day works construction activities and assist PIUs to ensure quality of works.
- (ii) Examine and make recommendations on the contractor's facilities, to ensure that these facilities conform to the agreed contract documents;
- (iii) Examine and make recommendations on the contractor's proposed work methods including but not limited to examining and approving occupational health and safety procedures;
- (iv) Assess the adequacy of materials, equipment and labor provided by the contractors, the contractor's methods of work, and rate of progress and (where required) recommend appropriate action to expedite progress;
- (v) Examine and make recommendations on the contractor's plans defining the location of the crushing and aggregate processing plants and the like;
- (vi) Issue all necessary field instructions to the contractor, and examine and control the work to ensure that these are carried out according to the contract documents
- (vii) Provide general guidance to the contractor as may be necessary to ensure that the works are carried out per schedule and within the terms of contract
- (viii) Ensure that the SEMP's are prepared prior to actual construction; supervise the implementation of environmental mitigating measures required for the construction activities;
- (ix) Inspect all working areas and installations during the execution of the works;
- (x) Compute quantities of works and materials, which have been accepted and approved, and examine and certify contractor's payment requests;
- (xi) Report monthly on the progress of the works, the contractors' performance, quality of works, and the subproject's financial status and projections;
- (xii) Ascertain and agree with the contractor all work measurements and review, and recommend payment claims and certify these within the terms of the contract. Record the results of measurements carried out for quantities to be paid
- (xiii) Conduct regular quality control test to assure quality of the work.
- (xiv) Advise the client on any environmental recommendations to overcome possible problems encountered

- (xv) Review the following contractor's documents and recommend appropriate action to the EA/IA, as necessary: periodic progress reports, quality-testing results, requests for variation, contractor's claims, and contractor's invoices;
- (xvi) Carry out an inspection upon completion of works and recommend on maintenance during defect liability period; and
- (xvii) Ensure that 'as-built' drawings are prepared for all works as construction progresses.

### **Non-key Expert DPHE/SS 01: Financial Management Expert (1 Nationals, 18 months)**

#### **Qualification and Experience**

A bachelor's degree in accounting with additional post graduate degree in finance. He/she should have preferably 7 years of professional experience in disbursement and finance areas, of which 2 years' experience must be in ADB or other (WB/IsDB/JICA) externally assisted projects.

#### **Responsibilities**

##### **General**

- Work under supervision and guidance of PMU (project director), provide support and guidance to the PIU and PIU financial and accounting staff;
- Effectively manage the financial aspects of the project in a timely coordinated manner.

##### **Training**

- Provide capacity building support to PIU to ensure that relevant staff of PIUs and other offices understands the requirements of ADB for disbursement and financial reporting; and
- Identify training needs of PIU staff, prepare training program and conduct training in coordination with other Financial Management Specialist of the projects.

##### **Accounting, reporting and disbursement**

- Preparing, developing, maintaining and using an accounting database system to maintain all transaction and procurement records of the PMU/PIU;
- Setting up a project specific bank account (Advance account, 2<sup>nd</sup> generation advance account and PIU account) for ADB grant in the name of Project and maintain it;
- Preparing and payment request with appropriate supporting documents to PMU approval authority and ADB following the agreed fund flow and appropriate disbursement categories;
- Tracking and expediting payments to suppliers, contractors, consultants and others;
- Book keeping of all expenses, payments and accounts to meet the professional statutory requirements of the government; and
- Ensuring all project financial activities are aligned to ADB & the government disbursement requirement and highest level of integrity is maintained in all financial transactions.

##### **Internal audit**

- Facilitating and cooperating with internal auditors whenever required;
- Advises on action to be taken to mitigate gaps in internal controls and effectively follows up on action to be taken.

##### **APFS**

- Prepare or assist to prepare annual project financial statements in the form acceptable to ADB to ensure timely submission.

- Advises and monitors audit observation and effectively follow up and implements audit recommendation and resolving the audit issues.
- Advises on compliances with grant covenant and ensure compliance on grand covenant is maintained.
- Assist PMU/PIU to address issues raised by ADB on audited project financial statements requirement and effectively follow up on actions to be taken

**Reporting**

- Develop monitoring format for progress monitoring of activities and tasks of the project relevant to financial management monthly.
- Responsible for accurately monitoring and reporting actual and forecast future expenditures of funds (from the different sources) monthly and quarterly basis.



**TERMS OF REFERENCE**  
**Design, Monitoring and Supervision Consultants**  
**Output 2: Disaster Risk Management**  
**Output 4 (part 2): Internal Roads and Drains**  
**Agency: Local Government Engineering Department**

(The team composition and terms of reference are preliminary and will be further reviewed and finalized before start of the recruitment process).

### A. Scope of Service

The consultant will directly work with Local Government Engineering Department (LGED) to deliver all items of output 2 of the project, and a part of output 4 related to internal road network within the camps, which will cover the following interventions:

- (i) Internal Roads and Stairs with Drainage Facilities inside the Camps - 30 km
- (ii) Construction of School cum Cyclone Shelter for affected people, 3 storied LGED Prototype - 10 nos.
- (iii) Hill Slope Protection Inside the Mega Camp- 5 km
- (iv) Construction of Semi-Permanent Food Distribution Centers and loading /unloading yard -20 nos.
- (v) Construction of Storm Water Drainage Network-6 km

For smooth implementation of above packages, LGED will recruit a firm following limited competitive bidding.

A total of 94 person-months of key experts and 177 person-months of non-key experts inputs will be required to complete all the activities of LGED. The summary of consultant requirement is in Tables 5 and 6, and the TORs of individual key experts are described in section B.

**Table 5: Summary of Key Staff**

<b>Output name</b>	<b>Particulars</b>	<b>Person-month</b>
Internal Roads and Drains	Team Leader/Senior Municipal Engineer	18
	Drainage and Storm Water Management Specialist	12
	Procurement Expert	6
	Quality Control Engineer	6
	Environmental Engineer	4
	Environmental Safeguard Specialist	3
	Social Safeguard Specialist	3
	Social Development Specialist (GAD)	6
Resilience and Disaster Management Works	Cyclone Shelters Structural Engineer	6
	Storm Water Hydrologist	6
	Design/Structural Engineer	12
	Disaster Risk Management Specialist	12
<b>Total Key staff</b>		<b>94</b>

### B. Team Composition

#### **LGED/K01: Team Leader/Senior Municipal Engineer (1 National, 18 months)**

#### **Qualification and Experience**

The Team Leader will have degree in Civil Engineering/Municipal Engineering with over 20 years of experience, of which at least 15 years involved in planning, design and supervision

of urban development projects and will have a minimum of 10 years proven work experience and skill in similar position in similar developing countries specially in South and South-East Asia. The Team Leader will be familiar with all aspects of the tasks listed in the scope of works and will have overall responsibility for managing the team.

### **Duties and Responsibilities**

The duties and responsibilities will include, but not limited to the following:

- (i) Review all relevant project documents, ADB Guidelines, GOB Rules & Procedures and assist PIUs, and other team members for smooth efficient, effective and successful implementation of infrastructure and services;
- (ii) Ensure close co-operation and assistance to the Project Director in all respects for effective and successful implementation of the Project including effective coordination with all development partners and NGOs;
- (iii) Assist Project Director in the preparation and implementation of annual work plan;
- (iv) Assist Project Director in preparation of standard bidding documents, tender/ contract evaluation and supervision of civil works, review and ensure quantity and quality of work as per specifications and certify bills for the works implemented under the project, for roads and drainage structures;
- (v) Assist PIU in preparation of Inception Reports and other Reports, such as, Monthly, Quarterly, Annual and Mid Term Progress Reports, etc.;
- (vi) Co-ordinate and supervise activity of other consultants of the team to ensure smooth implementation of the project activity;
- (vii) Assist PIU in contract administration and supervision to ensure quality control of subprojects;
- (viii) Ensure regular checking and supervision of works at field level and conform quality and quantity of work as per specification and certify bills for construction work;
- (ix) Assist PIUs to establish mobile maintenance units;
- (x) Assist the concerned stakeholders to prepare plan for cleanliness of drains, canal etc.;
- (xi) Perform any other activity assigned by the Project Director.

### **LGED/K02: Drainage and Storm Water Management Specialist (1 National, 12 months, intermittent)**

#### **Qualification and Experience**

The Drainage Engineer will have degree in civil engineering with specialization in drainage, flood and slope protection. He/she should have at least 15 years' overall experience and 7 years' practical experience in planning, design construction and management of flood control and urban drainage system projects in Bangladesh or any other developing country. Design experience of drainage structures will be essential.

#### **Duties and Responsibilities**

The duties and responsibilities of the Drainage Engineer will include, but not limited to the following:

- (i) Work under the general supervision and guidance of the Team Leader;
- (ii) Work closely with environmental resilient specialist to incorporate climate adaptation into drainage designs
- (iii) Assist PIUs to develop drainage subproject per selection criteria and appropriate drainage network for the project
- (iv) Conduct physical surveys as required

- (v) Prepare feasibility studies and designs of flood control and urban drainage system improvement subprojects prioritized under the project, especially in the densely populated slum areas, in collaboration with other relevant specialists;
- (vi) Discuss the technical viability of various proposed options for each subproject and demonstrate that they are most cost efficient;
- (vii) Prepare detailed engineering designs, including specifications, drawings, and detailed cost estimates for drainage and flood control components
- (viii) Include climate adaptation into drainage subprojects including the cost estimate;
- (ix) Assist in preparation of bidding documents, bill of quantities and conducting bidding and contract award
- (x) Assist in identifying places for community toilets, wash station, transfer station and sludge disposal to ensure linkage to safe drainage
- (xi) Coordinate with relevant government departments, such as, Bangladesh Water Development Board (BWDB), and Ukhiya and Teknaf Pourashavas to ensure consistency in the approach for reducing water logging and flood impacts;
- (xii) Review O&M options and prepare an O&M strategy including technical procedures to ensure efficiency and sustainability of the selected subprojects; and
- (xiii) Perform any other task assigned by the Team Leader, Deputy Team Leader and the Project Director.

### **LGED/K03: Procurement Expert (1 National, 6 months)**

#### **Qualification and Experience**

The expert will be preferably graduate in engineering, civil engineering, or similar / relevant discipline with a minimum of 10 years working experience in procurement and contract management. He/she will be responsible for carrying out the following the following principle tasks:

- (i) Collate and review technical specifications and work with experts to devise evaluation criteria
- (ii) Prepare rate analyses for all bill of quantities and engineering estimates for all project components
- (iii) Assist client in updating the project procurement plan and advise client to ensure timeliness of procurement processes
- (iv) Familiarity with ADB procurement process for procurement in emergency and disaster management projects
- (v) Advise and support client in obtaining ADB and government approval of procurement processes
- (vi) Preparing bidding documents and assist client in tender evaluation, award and management of contracts ensuring compliance with applicable ADB and government procurement guidelines

### **LGED/K04: Quality Control Engineer (1 National, 6 months, Intermittent)**

#### **Qualification and Experience**

The Quality Control Engineer will have degree in civil engineering with Masters in relevant field from any recognized university. and have 15 years' experience in quality control activities of civil work with 10 years' experience of quality control activities in urban civil work in Bangladesh and developing countries. Experience to work in quality control laboratories will get preference.

#### **Duties and Responsibilities**

The duties and responsibilities of the Quality Control Engineer will include, but not limited to the following:

- (i) Work under the general supervision and guidance of the Team Leader and Sr. Structural Engineer;
- (ii) Ensure quality control/assurance of ongoing and completed civil works;
- (iii) Prepare annual work plan for supervision and monitoring of civil work;
- (iv) Undertake regular field visits to all sub-projects to review implementation and supervision of subproject physical works, to confirm that specified quality standards are being achieved. Contribute to resolving any QC/QA issues;
- (v) Prepare and manage/participate in programs for on-site audit checks during the execution of physical works (construction and maintenance), of quality and quantity control, and provide advice on remedial actions as required
- (vi) Arrange laboratory testing of materials used for construction work in LGED laboratories/ elsewhere, as required;
- (vii) Arrange field testing of construction materials/activities;
- (viii) Design monitoring procedures/formats for quality control/assurance of civil work;
- (ix) Collect, compile and analyze test results of civil work and submit reports to the PMU;
- (x) Identify deviations from the standard specifications/quality of civil work and arrange rectification of the same, as required;
- (xi) Certify final bills regarding quality compliance;
- (xii) Train PIU staff/contractors to ensure quality;
- (xiii) Assist PIUs to establish mobile maintenance team; and
- (xiv) Perform any other task assigned by the Team Leader, Deputy and the Project Director.

### **LGED/K05: Environmental Engineer (1 National, 4 Months)**

#### **Qualification and Experience**

He/she will have post-graduate degree in Civil/Environmental Engineering, or related degree with over 12 years of experience, of which preferably 10 years involved in planning and design of environmental resilient infrastructure projects, preferably in water supply, waste management, roads and drainage, hill slope protection and will have a preferably 6 years proven work experience and skill in similar positions.

He/she will be responsible of the following:

- (i) Assist the team in incorporating environmental resilience into detailed designs of subprojects, particularly for water supply, waste management and drainage subprojects such as location of intakes, depth of production wells, width and orientation of drains and slope protection mechanisms.
- (ii) Assist the PMUs/PIUs in the selection of eligible subprojects using subproject selection criteria
- (iii) work closely with water supply and drainage engineers and other experts on team to incorporate adaptation and mitigation measures into both physical and non-physical components
- (iv) Work closely with the engineers to identify, quantify, and clearly report the incremental costs of climate adaptation and mitigation in the project design

**LGED/K06: Environmental Safeguard Specialist (1 National, 3 months, Intermittent)****Qualification and Experience**

Graduate in Civil Engineering with specialization in environment or similar / relevant discipline with at least 10 years of relevant working experience.

**Duties and Responsibilities**

He/she will assist and be responsible for implementing the following principle tasks:

- (i) Prepare Initial Environmental Examination (IEE)/Environmental Impact Assessments (EIA) in accordance with the Environmental Assessment Review Framework (EARF) for subprojects
- (ii) Ensure all Environmental Management Plan (EMP) measures are included in contract documents
- (iii) Ensure compliance with all relevant national laws
- (iv) Interact with the sector specialists and integrate environmentally sound practices into the detailed design of project components;
- (v) Work out the site-specific mitigation and adaptation measures for components as required and integrate the same into contractual provisions;
- (vi) Assist the Environmental Resilient Specialist in environmental training programs and workshops for the staffs of the PIU and contractors
- (vii) Prepare activity plans as identified in IEE (includes site management plans, waste management plans, sludge management and disposal plans, occupational safety plans, etc.);
- (viii) Supervise the implementation of the EMP by the contractors;
- (ix) Prepare quarterly environmental monitoring reports as required;
- (x) Assist in providing occupational health and safety training for contractors' personnel before commencement of civil works for all sub-projects
- (xi) Establish dialogue with the affected communities and ensure that the environmental concerns and suggestions are incorporated and implemented in the project;
- (xii) Facilitate in responding to any public grievances

**LGED/K07: Social Safeguard Specialist (1 National, 3 Months, Intermittent)****Qualification and Experience**

Graduate in sociology, social anthropology or similar/ relevant discipline with at least 10 years of relevant working experience in design and implementation of resettlement plans and framework. The specialist should be well conversant with laws relating to land acquisition, state procedures in implementation of resettlement packages and ADB procedures.

**Duties and Responsibilities**

He/she will be implementing the following tasks:

- (i) Prepare Due-diligence reports (DDR) in accordance with Resettlement Framework (RF) for the subprojects as needed
- (ii) Establish dialogue with the affected communities and ensure that their concerns and suggestions are incorporated and implemented in the project;
- (iii) Submit all draft DDR to ADB for review and clearance before contract award
- (iv) If Involuntary Resettlement triggers, work closely with the PMUs/PIU to implement the Resettlement Plan (RP) and specifically responsible for implementation of proposed compensation, rehabilitation, and income restoration measures, consultations with affected persons (APs) during rehabilitation activities, and assisting in grievance redress

- (v) Ensure compliance with all Government rules and regulations and ensure the DDR/RP is compliant with ADB's SPS-2009;
- (vi) Lead community consultation during design phase of components and as part of the preparation of the RP;
- (vii) Coordinate monitoring of RP implementation including reporting;
- (viii) Prepare resettlement training programs and workshops for the staff of the PIU and contractors
- (ix) Facilitate in responding to any public grievances and keep the record of all the grievance

### **LGED/K08: Social Development Specialist (GAD) (1 National, 6 Months, Intermittent)**

#### **Qualification and Experience**

Graduate in sociology, development studies or similar/ relevant discipline with at least 5-7 years of relevant working experience in design and implementation of GESI/AP and gender related activities.

#### **Duties and Responsibilities**

He/she will be implementing the following tasks:

- (i) Ensure GESI measures are incorporated in LGED activities especially in line the gender targets
- (ii) Ensure results are reported and monitored in an effective manner.
- (iii) compliance with national core labor standards (CLS) in construction-related works, and representation in user committees;
- (iv) Provide guidance and support to the LGED project staff in mobilizing communities to participate in project activities such labor opportunities, in user committees, in awareness raising and capacity building events;

### **LGED/K09: Cyclone Shelters Structural Engineer (1 National, 6 Months, Intermittent)**

#### **Detailed Tasks Assigned/or Expected Outputs**

- (i) Develop standard designs and specifications for all project cyclone shelter buildings;
- (ii) Undertake detail designs and preparation of drawings for each of the selected Cyclone Shelter structures based on site survey and investigation information provided by others;
- (iii) Provide advice when requested by the quality control engineers on any design and construction problems encountered during implementation, related to cyclone shelter structures.
- (iv) Assist with any other duties as may be reasonably assigned

#### **Required Qualifications**

- (i) Educational Qualification: B.Sc. degree in Civil Engineering or equivalent. Advance Degree/Training in Structural Engineering will be an advantage
- (ii) General Experience: 15 years of general experience.
- (iii) Specific Experience: 10 years' experience in the design and construction of multi-story RCC buildings, preferably for coastal areas Cyclone Shelters in Bangladesh (Including seismic and extreme wind loads). Experience in design of Cyclone Shelters in Bangladesh would be an advantage.

**LGED/K10: Storm Water Hydrologist: (1 National, 6 Months, Intermittent)****Detailed Tasks Assigned/or Expected Outputs**

- (i) Prepare analysis of hydrological and meteorological data and verify findings with the stakeholders like BWDB and Meteorological Department.
- (ii) Provide design criteria for hydraulic design of the storm water drainage system;
- (iii) Investigate the hydraulic conditions on the sites for the detailed design;
- (iv) Advise Design Engineers on dimensions of the drain based on the hydrological analysis.

**Required Qualifications**

- (i) Educational Qualification: B.Sc. degree in Civil Engineering/ Water Resources Engineering/Hydrology or equivalent. Advance Degree/Training in surface water hydrology will be an advantage.
- (ii) General Experience: 10 years of general experience.
- (iii) Specific Experience: 5 years' experience in the hydrological and meteorological data analysis for designing drainage network. Should be fully familiar with computer processing of data, GIS software especially ARCGIS.

**LGED/K11: Design/Structural Engineer (Storm water Drain/Slope Protection/Food Distribution Centre) (1 National, 12 Months, Intermittent)****Detailed Tasks Assigned/or Expected Outputs**

- (i) Assist in the development of standard designs and technical specifications for all project drain/slope protection/food distribution centers in close co-ordination with the cyclone shelter structural engineer.
- (ii) Undertake detail designs and preparations of drawings for the drain, slope protection and food distribution centers based on site survey information;
- (iii) Provide advice to the field engineers on any design and construction problems encountered during implementation of the civil works;
- (iv) Assist in any other duties as may be reasonably assigned.

**Required Qualifications**

- (i) Educational Qualification: B.Sc. degree in Civil Engineering or equivalent. Advance Degree/Training in Structural Engineering will be an advantage.
- (ii) General Experience: 15 years of general experience.
- (iii) Specific Experience: 10 years' experience in the design and construction of drain, slope protection and steel structures. Experience in design of storm water drainage/hill slope protection works in hilly areas of Bangladesh would be an advantage.

**LGED/K12: Disaster Risk Management Specialist: (1 National, 12 Months)**

In coordination with the Ministry of Disaster Management and Relief, the consultant will work in close coordination with sub-national disaster management authorities and humanitarian responders to the IDP/displaced persons crisis to enhance disaster risk management capabilities of implementing partners, host communities, camp managers and camp populations in the seven Upazilas (subdistricts) comprising Coxsbazar District.

**Detailed Tasks Assigned/or Expected Outputs**

- (i) Finetune hazard profiles, disaster assessments and seasonal calendars to develop a comprehensive risk analysis of the project area and analysis of current DRM practices;

- (ii) Initiate and facilitate community-based DRR in the project area based on existing plans and procedures as well as consultations with host communities and camp managers;
- (iii) Support capacity development and advise on funding pilot projects that illustrate the potential of disaster risk reduction, provide livelihood support and enhance collaboration between host communities and camp populations;
- (iv) Develop emergency preparedness and disaster response plans based on international minimum standards (e.g. Sphere and INEE) and good practice (e.g. incident command systems); and
- (v) Test response readiness during drills or actual response operations required by the unfolding situation.
- (vi) Assist with any other duties as may be reasonably assigned.

#### Required Qualifications

- (i) Educational Qualification: Master's degree in any disaster risk management-related field. Academic degree/specialized training in disaster risk management will be an advantage.
- (ii) General Experience: 15 years of working experience in disaster risk management. Documented outputs from guiding national and international partners on contingency planning, emergency preparedness and disaster risk reduction would be an advantage.
- (iii) Specific Experience: Field experience from community-based DRR and disaster response in the project area or Bangladesh would be a plus.
- (iv) Good communication and coordination skills are essential along with a drive for results.

**Table 6: Non-Key Expert**

Expert Code	Title of Expert	Relevant Experience and Qualification	No of Position	Total Person-Month
LGED/SS 01	Construction Supervision Engineer	<ul style="list-style-type: none"> <li>• Bachelor's degree in civil/material engineering</li> <li>• 8 years of professional experience</li> <li>• 5 years of in construction supervision of civil works</li> </ul>	2	45
LGED/SS 02	Quantity Surveyors	<ul style="list-style-type: none"> <li>• Bachelor's degree in civil engineering</li> <li>• 8 years of professional experience</li> <li>• 5 years in quantity survey, cost estimate and bill of quantities preparation</li> </ul>	1	24
LGED/SS 03	Financial Management Expert	<ul style="list-style-type: none"> <li>• Bachelor's degree in accounting</li> <li>• additional qualifications in finance</li> <li>• 7 years of professional experience</li> <li>• Must have at least 2 years of experience of working in ADB or other (WB/IsDB/JICA) externally assisted projects in disbursement and finance areas</li> </ul>	1	18
LGED/SS 04	Office Manager	<ul style="list-style-type: none"> <li>• Diploma in civil Engineering</li> <li>• 8 years of professional experience</li> <li>• 5 years as CAD technician</li> </ul>	1	24
LGED/SS 05	CAD Technicians	<ul style="list-style-type: none"> <li>• Diploma in civil Engineering</li> <li>• 8 years of professional experience</li> <li>• 5 years as CAD technician</li> </ul>	1	12
LGED/SS 06	Laboratory Technicians	<ul style="list-style-type: none"> <li>• H.S.C in science background</li> <li>• 3 years of professional experience as a laboratory technician</li> </ul>	1	18



LGED/SS 07	Assistant Laboratory Technicians	<ul style="list-style-type: none"> <li>• H.S.C in science background</li> <li>• 1 years of professional experience as a laboratory technician</li> </ul>	2	36
<b>Sub-Total</b>			<b>9</b>	<b>177</b>

Two non-key expert positions require specific TORs as follows:

**Non-key Expert LGED/SS 01: Construction Supervision Engineers: (2 National, 22.5 Months)**

**Detailed Tasks Assigned/or Expected Outputs**

- (i) Identify Quality control issues in the project arising from the design and construction of physical works, and bring these to the attention of the higher authority if they are not able to be promptly and effectively resolved at site;
- (ii) Assist in checking and supervising detailed engineering surveys and site investigations;
- (iii) Advise on scheduling of use of any construction equipment leased to contractors, to achieve timely execution of works and efficient utilization of equipment;
- (iv) Monitor on-site material and equipment storage and handling procedures, and environmental practices, and advise on remedial actions as required;
- (v) Assist in the site supervision of all construction works to ensure that design standard and technical specifications are achieved, including use of appropriate construction methods, on-site quality control, and proper checking in accordance with the approved quality plans;
- (vi) Identify any issues related to the performance of field and laboratory testing which should be addressed
- (vii) Jointly measure and check with the EA staff all works quantities presented for payment, and jointly approve the quality and quantity of all works;

**Required Qualifications**

- (i) Educational Qualification: B.Sc. degree in Civil Engineering or equivalent.
- (ii) General Experience: 8 years of general experience.
- (iii) Specific Experience: 5 years' experience in site supervision for civil engineering projects and supervision/monitoring of related field and laboratory tests. Experience in civil works site supervision in coastal areas of Bangladesh would be an advantage.

**Non-key Expert LGED/SS 03: Financial Management Expert (1 National, 18 Months)**

**Detailed Tasks Assigned/or Expected Outputs**

- (i) Identify Quality control issues in the project arising from the design and construction of physical works, and bring these to the attention of the higher authority if they are not able to be promptly and effectively resolved at site;
- (ii) Assist in checking and supervising detailed engineering surveys and site investigations;
- (iii) Advise on scheduling of use of any construction equipment leased to contractors, to achieve timely execution of works and efficient utilization of equipment;
- (iv) Monitor on-site material and equipment storage and handling procedures, and environmental practices, and advise on remedial actions as required;
- (v) Assist in the site supervision of all construction works to ensure that design standard and technical specifications are achieved, including use of appropriate construction methods, on-site quality control, and proper checking in accordance with the approved quality plans;

- (vi) Identify any issues related to the performance of field and laboratory testing which should be addressed
- (vii) Jointly measure and check with the EA staff all works quantities presented for payment, and jointly approve the quality and quantity of all works;

**Required Qualifications**

- (i) Educational Qualification: B.Sc. degree in Civil Engineering or equivalent.
- (ii) General Experience: 8 years of general experience.
- (iii) Specific Experience: 5 years' experience in site supervision for civil engineering projects and supervision/monitoring of related field and laboratory tests. Experience in civil works site supervision in coastal areas of Bangladesh would be an advantage.

**Indicative Provisional Sum:** Under Provisional Sum of the consultancy contract, a non-government organization will be subcontracted for the social mobilization by 4-social mobilizers in supporting the mitigation of social- and health-related risks (i.e. sexually-transmitted infections) and human trafficking (specifically, children and women) throughout project implementation. (The decision to include this requirement under provisional sums or to recruit an NGO under TA shall be discussed with the IA and decided before issuance of EOI).

**TERMS OF REFERENCE**  
**Design, Monitoring and Supervision Consultants**  
**Output 3: Renewable Energy and Electricity Distribution Component**  
**Agency: Bangladesh Rural Electrification Board**

(The team composition and terms of reference are preliminary and will be further reviewed and finalized before start of the recruitment process).

**A. Scope of Service**

Output 3 of the project will be implemented by the Bangladesh Rural Electrification Board (BREB) and cover 6 packages:

- (i) Solar PV micro-grid systems
- (ii) Solar PV Street lights
- (iii) Retained heat cookers
- (iv) 1 x 33/11 KV substation at Palongkhali area with at least 1 x 132/33 KV transformer at Coxsbazar Zhilongzha Power House,
- (v) at least 50 km 11KV and below distribution lines with transformers
- (vi) Flood lights, street lights and lightening arresters.

BREB plans to procure the above packages in an urgent basis, with the supplier to be responsible for the material supply, delivery, installation, testing, commissioning, training, handover and managing Annual Maintenance Contracts (AMC). The role of the consultant in this process is to assist BREB in assuring that all steps are undertaken properly, so that the completed goods and services delivers the performance, reliability, and operational flexibility as specified. The assistance covers preparation of technical specifications and bidding documents; support of the tendering process and bid evaluation; oversight of the installation and commissioning of the solar PV and the substation packages from the owner's perspective; and handing over all items including issuance of final acceptance certificates.

A total of 33 person-months of key expert's inputs and 48 person-months of non-key expert's inputs will be required. The summary of consultant requirement is in Table 7 and the TORs of individual key experts are described in section B.

**Table 7: Consultant Man-Month Break Down**

Category	Particulars	Person-month
Renewable Energy	Renewable Energy Expert/ Micro-grid Expert or Team leader	6
	Electrical Engineer	4
	Retain heat cooker expert	1
Electricity distribution	Power System Expert	2
	Electrical engineer/ Substation design engineer	2
Common	Procurement Specialist	3
	Civil Engineer	3
	Environmental and Social Safeguard Management expert	3
<b>Total Key Experts</b>		<b>24</b>
<b>Non-Key Experts</b>	RE Supervision engineer (1)	15
	SS Supervision engineer (1)	15
	Financial Management Expert (1)	18
<b>Total:</b>		<b>72</b>

1. CVs of all key experts shall be evaluated and scored.

2. Consultants shall propose 3 non-key experts to complete the assignment based on the requirements provided in the TORs. The consultant is required to submit CV of non-key experts with the proposal, however, the CVs will not be scored but evaluated on fail/pass criteria.

## B. Team Composition

### BREB/K01: Team Leader/RE Expert/Micro-grid expert (1 National, 6 months)

#### Qualification and Experience

With at least Bachelor's degree in relevant engineering, the expert shall have minimum 10 years of job experience in design, supervising including testing, commissioning and managing similar (in size and scope) contracts involving the supply and installation of Solar Power systems. The aggregate duration of the assignment, during which he/she held the position of solely responsible manager must not be less than 6 years. The Team Leader will be familiar with all aspects of the tasks listed in the scope of works and will have overall responsibility for managing the team.

#### Duties and Responsibilities

The duties and responsibilities will include, but not limited to the following:

- (i) Oversee the assignment and the consultant team, and act as the team leader for all the consultants recruited under the Energy Project and as focal point for EA, ADB and other stakeholders;
- (ii) Furnish the design, with technical specifications for solar PV micro-grid, solar street lights and retained heat cookers (Package 1 items);
- (iii) Get power system expert (consultant 4) to submit design and technical specifications of substation with transformers, distribution lines, flood lights, street lights and lightning arresters on time;
- (iv) Assist EA in preparation of bidding documents including technical specifications, performance specifications, schedules, and drawings;
- (v) Assist with advertisement, pre-bid meetings, clarification meetings, preparation of minutes of the pre-bid and clarification meetings for issuance to the contractors;
- (vi) Assist EA in evaluation of the bids to be received against OCB for engagement of turnkey contractor, preparation of bid evaluation reports, contract negotiations and draft contract agreements, and advice on submission of documents to ADB for review and approval;
- (vii) In coordination with all consultants, act as team leader to review, check and certify suppliers' equipment design, and assist EA in approving the technical documents;
- (viii) Prepare a list of installation sites for solar street lights, micro-grid and lightning arresters;
- (ix) For RE equipment and services under package-1 (micro-grid and PV street lights), prepare an Annual maintenance contract (AMC) to be signed between BREB and its contractors;
- (x) For retained heat cookers (RHC), oversee relevant consultant to submit an effective user training module and a product dissemination plan;
- (xi) For lightning arresters, conventional and solar PV street lights, utilize the electrical engineer, RE and SS supervision engineers to develop a list of prospective sites;
- (xii) Witness and certify main equipment inspections;
- (xiii) Assist EA in supervising the installation, testing and commissioning of the main and ancillary equipment, plant and utilities. Monitor project progress against plan, report on progress, and propose remedial measures as necessary;
- (xiv) Advise and assist EA to develop and maintain a project quality assurance plan (including warranty and after sales services terms) and monitor contractor's designs and works are executed in line with the plan and project requirements. As and when referred by EA, speedily advise on acceptability of such designs and works, and suggest corrective measures to be undertaken;

- (xv) Attend and ensure certification of Testing and Commissioning by the contractors;
- (xvi) Review of Operation Manuals;
- (xvii) Report on findings during the implementation of the sub-projects;
- (xviii) Assist EA in ensuring that its personnel receive adequate on-the-job training by the contractor on all relevant aspects of sub-projects so that EA's personnel can independently perform the operation and maintenance functions;
- (xix) Delivering the required reports including final reports;
- (xx) Conduct other duties as reasonably requested by EA;

### **BREB/K02: Electrical Engineer (1 National, 4 Months)**

#### **Qualification and Experience**

With at least Bachelor's degree in electrical engineering, the expert shall have minimum 8 years of job experience in installation, supervising including testing & commissioning and managing similar (in size and scope) contracts involving the supply and installation of Solar Power systems. The aggregate duration of the assignment, during which he/she held the position of solely responsible manager must not be less than 6 years.

#### **Duties and Responsibilities**

The duties and responsibilities of the Electrical Engineer will include but not limited to the following:

- (i) Assist the team leader in developing technical specifications for solar PV micro-grids, solar street lights and retained heat cookers (Package 1 items);
- (ii) Prepare site selection criterion for street lights, flood lights, micro-grids, solar PV street lights, lightning arresters in consultation with BRM gender team;
- (iii) Select sites for the street lights, flood lights, micro-grid, solar PV street lights, lightning arresters by utilizing RE and Substation supervision engineers. Prior to finalization of the site list, it should be reviewed and approved by BRM gender team;
- (iv) Provide support to the team leader in the bidding and contracting process for the RE products and services.
- (v) Oversee and monitor the installation works of the contractors at site for the RE components.
- (vi) Facilitate signing of the AMC between BREB and contractors.
- (vii) Conduct other duties as reasonably requested by EA/ team leader;

### **BREB/K03: Retained Heat Cooker Specialist (1 National, 1 Month)**

#### **Qualification and Experience**

With at least Bachelor's degree in relevant engineering, the expert shall have minimum 10 years of job experience in design, supervising including testing & dissemination and managing similar (in size and scope) contracts involving the manufacturing and dissemination of retained heat cookers. The aggregate duration of the assignment, during which he/she held the position of solely responsible manager must not be less than 6 years.

### **Duties and Responsibilities**

The duties and responsibilities of the Retained Heat Cooker Specialist will include, but not limited to the following:

- (i) Suggest a design for the RHC to be procured under the project;
- (ii) Assist BREB in preparing the bidding document for purchase of the RHC, including product's technical specifications and vendor's qualification criterion and payment terms etc.
- (iii) Prepare a beneficiary selection criterion for the RHC by prioritizing the needs after taking inputs from the UN agencies working with LPG supply, ICS supply, briquettes supply in the camp. The consultant will also take inputs from the social safeguard and BRM gender team.
- (iv) Prepare a dissemination plan for BREB to distribute the cookers among the affected HH.
- (v) Prepare a user training module for the RHC manufacturer come supplier.
- (vi) Prepare an awareness raising program for RHC users.
- (vii) Arrange at least 5 demonstration programs inside the camps using RHC.
- (viii) Conduct other duties as reasonably requested by EA/ team leader;

### **BREB/K04: Power System Expert (1 National, 2 Months)**

#### **Qualification and Experience**

With at least a bachelor's degree in relevant engineering, the expert shall have minimum 8 years of experience in design, testing & commissioning of similar (in size and scope) project involving commissioning of substations, transmission and distribution lines. The aggregate duration of the assignment, during which he/she held the position of electricity transmission and distribution expert must not be less than 6 years.

#### **Duties and Responsibilities**

The duties and responsibilities of the Power System Expert Engineer will include, but not limited to the following:

- (i) Analyze the system load flow in Coxsbazar-Teknaf distribution system under BREB and PGCB using PSSE simulation;
- (ii) Conduct a short circuit level study in Coxsbazar-Teknaf distribution system;
- (iii) Conduct a rapid feasibility study of 1x 132/33 KV transformer at Zhilongzha power house and 1 x 33/11 KV substation at Palonglhali to add 50 KM distribution lines and 4000 new street lights inside and towards the camps at Ukhiya and Teknaf.
- (iv) Assist BREB to prepare the design, drawing and technical specifications of the proposed augmentation in BREB infrastructure;
- (v) Assist BREB to prepare bid document, bid evaluation, contract negotiation and contract signing with the vendors;
- (vi) Conduct other duties as reasonably requested by EA/ team leader;

### **BREB/K05: Electrical Engineer/ Substation Design Engineer (1 National, 2 Months)**

#### **Qualification and Experience**

With at least a bachelor's degree in relevant engineering, the expert shall have minimum 8 years of experience in design, testing & commissioning of similar (in size and scope) project involving commissioning of substations, transmission and distribution lines. The aggregate duration of the

assignment, during which he/she held the position of electricity transmission and distribution expert must not be less than 6 years.

### **Duties and Responsibilities**

The duties and responsibilities of the substation design engineer will include, but not limited to the following:

- (i) Assist EA in supervising the installation, testing and commissioning of the main and ancillary equipment, plant and utilities. Monitor project progress against plan, report on progress, and propose remedial measures as necessary;
- (ii) Advise and assist EA to develop and maintain a project quality assurance plan (including warranty and after sales services terms) and monitor contractor's designs and works are executed in line with the plan and project requirements. As and when referred by EA, speedily advise on acceptability of such designs and works, and suggest corrective measures to be undertaken;
- (iii) Attend and ensure certification of Testing and Commissioning by the contractors;
- (iv) Review of Operation Manuals;
- (v) Report on findings during the implementation of the sub-projects;
- (vi) Assist EA in ensuring that its personnel receive adequate on-the-job training by the contractor on all relevant aspects of sub-projects so that EA's personnel can independently perform the operation and maintenance functions;
- (vii) Delivering the required reports including final reports;
- (viii) Conduct other duties as reasonably requested by EA;
- (ix) Conduct other duties as reasonably requested by EA/ team leader;

### **BREB/K06: Procurement Specialist (1 National, 3 Months)**

#### **Qualification and Experience**

The procurement will have Bachelor's degree in engineering/masters in procurement/ finance/ law/ business/ supply chain and have 5 years' experience procurement and supply chain in reputed national and international organization.

#### **Duties and Responsibilities**

The duties and responsibilities of the procurement specialist will include, but not limited to the following:

- (i) The expert will assist team leader and be responsible preparing bidding documents including qualification and evaluation criteria taking inputs from other experts following ADB procurement guidelines;
- (ii) Assist EA in answering clarifications from potential bidders during pre-bid meetings;
- (iii) Assist EA in preparing bid evaluation reports, negotiation and contract signing.
- (iv) Conduct other duties as reasonably requested by EA/ team leader;

### **BREB/K07: Civil Engineer (1 National, 12 Months)**

#### **Qualification and Experience**

With at least a bachelor's degree in civil engineering, the expert shall have minimum 8 years of experience in civil design & testing of similar (in size and scope) project involving substations, transmission towers, pole for solar street light and lightning arrester. The aggregate duration of

the assignment, during which he/she held the position of civil design expert must not be less than 6 years.

### **Duties and Responsibilities**

The duties and responsibilities of the civil engineer will include, but not limited to the following:

- (i) The expert will assist BREB in preparing conceptual civil design for substation, transmission lines, solar street lights and pole for lightning arresters and micro-grid structure for bid documents.
- (ii) The expert will assist the procurement specialist and BREB during bid evaluation for civil drawings.
- (iii) The expert will approve the civil design submitted by relevant contractors for substation, transmission lines, solar street lights and pole for lightning arresters and micro-grid structure.
- (iv) The expert will provide supervisory support during construction of substation, transmission lines, solar street lights and pole for lightning arresters and micro-grid structure.
- (v) Conduct other duties as reasonably requested by EA/ team leader;

### **BREB/K08: Environmental and Social Safeguard Management Expert (1 National, 3 Months)**

#### **Qualification and Experience**

With at least a master's degree in relevant discipline, the expert shall have minimum 8 years of experience in environmental and social safeguard management for similar (in size and scope) project involving substations, transmission towers, pole for solar street light and lightning arrester, micro-grid and retained heat cookers. The consultant should have prior working experience with ADB, World Bank or UN organization or equivalent organization and have clarity in international development partner's safeguard requirements.

#### **Duties and Responsibilities**

- (i) Review/prepare and update and monitor the implementation of the IEE report, EMPs (contract specific) and Resettlement Plan (RP) to fulfill ADB SPS requirements (especially for substation component).
- (ii) Assist BREB to incorporate ADB's environmental and social safeguards requirement in all six bidding documents.
- (iii) Ensure that the construction methods as proposed by the contractor for carrying out the works are satisfactory with reference to the Environmental Management Plan of IEE Report; to the technical requirements of sound environmental standards based on ADB's SPS requirements; and safety of the works, property, personnel, and public; the schedule of mitigation measures for adverse environmental impacts to be monitored by the consultant.
- (iv) Prepare reporting templet for the following reports, the format and content of which are to be acceptable to the employer: semi-annual environmental monitoring report (EMR), Social Safeguard Monitoring Report (SMR).
- (v) Conduct other duties as reasonably requested by EA/ team leader.



**Non-key Expert BREB/SS01 and SS02: RE and SS Supervision Engineer (1 National, 15 Months)**

**Qualification and Experience**

With at least a diploma in relevant engineering, the non-key expert shall have minimum 5 years of experience in installation, commissioning, supervision and monitoring of project involving commissioning of solar street lights, micro-grid, lightning arresters, substations, transmission and distribution lines.

**Duties and Responsibilities**

- (i) Assist team leader, electrical engineer, substation engineer and gender expert in survey activities.
- (ii) Assist team leader in selecting and finalizing the sites.
- (iii) Assist BREB to monitor and supervise the contractor's installation works as specified in contract documents and submit monthly progress report to team leader.
- (iv) Assist team leader/ BREB in preparing acceptance certificates for all six components.
- (v) Conduct other duties as reasonably requested by EA/ team leader.

**Non-key Expert BREB/SS03: Financial Management Expert (1 National, 18 Months)**

Same TOR as of DPHE/SS01

**TERMS OF REFERENCE**  
**Construction Supervision Consultants**  
**Output 4: Access Roads**  
**Agency: Roads and Highways Department**

(The team composition and terms of reference are preliminary and will be further reviewed and finalized before start of the recruitment process).

**A. Objective and Scope**

1. **Objective.** The main objective of the consulting assignment is to (i) ensure high standards of quality assurance in execution of works and completion of work within stipulated time limit, (ii) comprehensive supervision of project implementation activities carried out by the contractor(s) to ensure complete compliance with the drawings, technical specifications and various stipulations in the contract documents, and (iii) monitor safeguards implementation includes environment, social, gender, health and safety activities associated with the project.

2. The Investment Program will include the following packages of civil works:

Civil Works Package Details	Number of Packages	Remarks
Improvement of Coxsbazar-Teknaf Road	4	Civil works for road projects
Phase 1: Coxsbazar-Whykong	3	

3. The scope of civil works for road projects normally involve two periods:

(i) Construction	12 Months
(ii) Defect Liability	12 Months

4. Accordingly, the consulting services involve the following tasks during the construction and defect liability periods.

5. **Task: Construction Supervision of Road Works.** The consultant will (i) review and make modification as necessary to the detailed design for the project road already prepared by the RHD (ii) provide procurement supports, (iv) provide construction supervision to civil works, and (v) provide other technical support upon RHD's request. In addition to the above services, the consultant will undertake maintenance quality checks for project road regarding the technical, contractual and financial aspects of the project implementation.

**B. Detailed Tasks of the Assignment**

6. The consultant will carry out the following tasks under the Investment Program.

**a. Review of Detailed Design**

- (i) Collect and analyze data for the project area to analyze the detailed design already prepared by the RHD;
- (ii) Assess the surrounding area and check the drainage patterns, design provisions, proposed structures i.e. bridges, culverts, overpasses, pavement etc. as already prepared/proposed in the detailed design for

proposed structures or modify existing detailed design: if required, in consultation with RHD.

- (iii) Conduct field visit to the entire length of the project road to assess/ check the locations of utility service lines both buried/surface throughout the project road and to identify the potential impacts of the project on road safety.
- (iv) Prepare relevant design reports/mapping for utility services with the analyses, risk assessments, findings, and safety recommendations acceptable to client
- (v) Determine/design the appropriate pavement structure for roadways, bazaar areas, intersection points, storage areas and parking areas and in consultation with RHD modify the design of pavements incorporating the rigid or composite pavement; if required

**b. Procurement Support**

- (i) Finalize/modify the bidding documents already prepared by the RHD with necessary incorporation of changes as per the modified/final detailed design using ADB's Procurement Guidelines.
- (ii) Provide support services, which will involve assisting RHD to respond to questions from bidders and to issue addenda when required. Services during the bidding period will also include the arranging a pre-bid meeting and site visit and the public opening of bids.
- (iii) The technical sub-committee reporting to the evaluation committee will consist of an integrated team of technical specialists from RHD and the consultant.
- (iv) Any non-compliance or deviation from the bidding documents, as issued will be noted, and where appropriate, clarification from bidders will be requested.
- (v) Upon completion of the bid evaluation, the evaluation committee will issue a Bid Evaluation Report with recommendations for award of the contract(s). The Consultant will assist RHD in finalizing the contract. This assistance will include and not limited to the verification of performance bonds and guarantees.

**c. Construction Supervision**

- (i) As the engineer's representative, the consultant will assist in administering the construction contracts.
- (ii) Make all necessary measurements and control the quality of works and advise the Engineer in making all engineering decisions required for the successful and timely implementation of the construction contracts.
- (iii) Review and cross check to ensure the work schedule compatible with the progress of land acquisition and resettlement, environmental clearance, and another associated safeguard implementation.
- (iv) Ensure that all works comply with the approved engineering designs and technical specifications, including all elderly-, children-, women- and disabled (ECWD) design features and other gender-related features included in the Gender Equality and Social Inclusion Action Plan (GESI/AP), agreed schedule and budget, terms and conditions of the contracts standard engineering practice, and ADB safeguards policy:
- (v) Provide general guidance and issue instructions to contractors;

- (vi) Advise the Project Director as well as ADB's Project Management Team in making engineering decision;
- (vii) Clarification about the disputed issues, anomaly, error or risk that could affect the project objectives and make the appropriate recommendations and/or take the necessary actions to remedy them;
- (viii) Ensure that the construction method proposed by the contractor for carrying out the works are satisfactory;
- (ix) Inspect contractor's construction equipment; results of materials and soil tests: safety of the works property and personnel; and schedule of mitigation measures for adverse environmental impacts. Notify contractors to remedy works and materials that fail to comply with specifications;
- (x) Review the design of culverts, underpasses, bridges, foot over bridges and ensure that the methods of construction are complied with the safety measures;
- (xi) Monitor and supervise (a) progress of contractors works vis-à-vis contract schedule, and (b) progress of contractors' works vis-à-vis applicable technical specifications and design;
- (xii) Check that 'as-built' drawing is prepared by the contractors for all works as construction processes;
- (xiii) Develop the quality assurance system and quality control plan for provisions of pavement and structures;
- (xiv) Review and certify work volume and process interim and final payments of the contractors. Ensure timely submission of contractors' interim payment certificates and release of payment.
- (xv) The supervision consultant will process interim and final payment certificate submitted by the contractors.
- (xvi) If so required by the employer, the supervision consultant will provide any of the following as additional services: (a) prepare reports including technical appraisals, additional contract documentation and/or review and comment on the contractor's proposals, as may be required for the successful completion of the Project; and (b) provide any other specialist services as may be required from time to time.

**d. Performance Monitoring and Safeguards Implementation**

- (i) Design and undertake project performance monitoring and evaluation of the Project in accordance with ADB's Project Performance Management System (PPMS) Handbook.
- (ii) Monitor, facilitate and in some instances, implement other social and gender related activities, including sexually transmitted infections (including HIV), human trafficking and road safety awareness campaign to the communities along the corridor and labor.
- (iii) Ensure that the construction methods as proposed by the contractor for carrying out the works are satisfactory with particular reference to the Environmental Management Plan; requirements of the environmental clearance issued by DOE; to the technical requirements of sound environmental standards on the basis of ADB's SPS requirements; inspection of contractor's construction equipment; and safety of the works, property, personnel, and general public; the schedule of mitigation measures for adverse environmental impacts to be monitored by the consultant will be provided

- (iv) Supervise and monitor the implementation of contract-specific environmental mitigation plan (EMP). In case of unexpected environmental impacts, coordinate with the Project Director and PIC to recommended necessary mitigation measures to the Committee of Roads and ADB for implementation;
- (v) Coordinate with local government agencies or specialized non-governmental institutions working in sexually transmitted infections (including HIV), anti-trafficking and road safety awareness campaigns to produce awareness, print materials, which will be distributed and posted in high traffic areas in and around the land ports and conduct awareness campaigns in major settlements along the concerned corridor.
- (vi) Monitor and conduct gender mainstreaming activities associated with the project through the Gender and Social Inclusion Plan (GESI/AP) and ensure gender targets are on track.
- (vii) Monitor the status of the contractor's compliance with sexually transmitted infections and HIV prevention provisions, national labor laws (i.e. prohibition of child and forced labor), and the employment of the poor and affected persons and women in the civil works contracts.

### C. Consultant's Inputs

7. The assignment will be carried out over a period of Twenty-Four (24) months from the date of commencement (expected by October 2018). The assignment will be implemented by a consulting firm. It is anticipated that about 60 person-months of input by national consultants, and 168 person-months of non-key experts will be required.

Based on satisfactory performance of the consultant, contract may be extended for Phase 2 through contract variation or direct contracting or new selection process depending upon implementation situation of Phase 2. Phase 2 will consist of supervision of one civil work contract for the Whykong-Teknaf road construction.

8. **Attendance Management of Consultants.** In the attendance sheet, which should be provided along with the consultant invoice, the site consultant personnel attendance sheet shall be countersigned by the authorized person determined by the client. However, Team Leader of the Consultant shall countersign the entire attendance (field and head office) sheet which will be the integral part of the Consultant Invoice.

**Table 8: Required Experts**

No.	Title	Relevant Experience and Qualification	Position	Person-Months
<b>Key Expert (National)</b>				
NC01	Team Leader/ Senior Highway Engineer	<ul style="list-style-type: none"> <li>• Bachelor's degree in civil engineering, post graduate degree preferred</li> <li>• 20 years of professional experience</li> <li>• 15 years in planning, supervision, preparation, design and construction of highway projects, at least 7 years as project team leader of highway projects</li> </ul>	1	18
NC03	Senior Resident/ Quality Control Engineer	<ul style="list-style-type: none"> <li>• Bachelor's degree in civil engineering</li> <li>• 15 years of professional experience</li> </ul>	1	12

No.	Title	Relevant Experience and Qualification	Position	Person-Months
		<ul style="list-style-type: none"> <li>10 years in Project Engineer/Project Manager in highway and infrastructure projects</li> </ul>		
NC04	Senior Contract/Procurement Specialist	<ul style="list-style-type: none"> <li>Bachelor's degree in engineering or construction science, post graduate degree preferred</li> <li>15 years of professional experience</li> <li>10 years of experience in preparation/management of construction contracts and procurements for international bidding with knowledge of FIDIC Contract</li> </ul>	1	6
NC05	Senior Bridge Engineer	<ul style="list-style-type: none"> <li>Bachelor's degree in civil engineering, post graduate degree preferred</li> <li>10 years of professional experience</li> <li>8 years of experience in bridge design and construction</li> </ul>	1	4
NC06	Environment Specialist	<ul style="list-style-type: none"> <li>Master's degree in environmental engineering or environmental science,</li> <li>10 years of professional experience</li> <li>8 years of experience in environment impact assessment for road/infrastructure projects</li> </ul>	1	4
NC07	Social Safeguards Specialist (GAD)	<ul style="list-style-type: none"> <li>Bachelor's degree in social sciences, post-graduate degree preferred</li> <li>5-7 years of experience in social and gender and development (SD/GAD) in infrastructure sectors and -preferably- in road construction/rehabilitation</li> </ul>	1	4
NC02	Quantity Engineer (Road)	<ul style="list-style-type: none"> <li>Bachelor's degree in civil/material engineering</li> <li>10 years of professional experience</li> <li>8 years of experience in quality control and materials testing for highway projects</li> </ul>	1	12
Sub-Total=			7	60
<b>Non-key Expert</b>				
SS 01	Site Engineer	<ul style="list-style-type: none"> <li>Bachelor's degree in civil/material engineering</li> <li>5 years of professional experience</li> <li>3 years of in road construction</li> </ul>	2	24
SS 02	Quantity Surveyors	<ul style="list-style-type: none"> <li>Bachelor's degree in civil engineering</li> <li>10 years of professional experience</li> <li>8 years in quantity survey, cost estimate and bill of quantities preparation</li> </ul>	1	24
LGED/SS 03	Financial Management Expert	<ul style="list-style-type: none"> <li>Bachelor's degree in accounting</li> <li>additional qualifications in finance</li> <li>7 years of professional experience</li> <li>Must have at least 2 years of experience of working in ADB or other (WB/IsDB/JICA) externally assisted projects in disbursement and finance areas</li> </ul>	1	18
SS 04	Office Manager	<ul style="list-style-type: none"> <li>Diploma in civil Engineering</li> <li>8 years of professional experience</li> <li>5 years as CAD technician</li> </ul>	1	24
SS 05	CAD Technicians	<ul style="list-style-type: none"> <li>Diploma in civil Engineering</li> <li>8 years of professional experience</li> <li>5 years as CAD technician</li> </ul>	1	12

No.	Title	Relevant Experience and Qualification	Position	Person-Months
SS 06	Laboratory Technicians	<ul style="list-style-type: none"> <li>H.S.C in science background</li> <li>3 years of professional experience as a laboratory technician</li> </ul>	1	18
SS 07	Assistant Laboratory Technicians	<ul style="list-style-type: none"> <li>H.S.C in science background</li> <li>1 years of professional experience as a laboratory technician</li> </ul>	1	24
Sub-Total=			8	144

1. CVs of all key experts shall be evaluated and scored.

2. Consultants shall propose 10 non-key experts to complete the assignment based on the requirements provided in the TORs. The consultant is required to submit CV of non-key experts with the proposal, however, the CVs will not be scored but evaluated on fail/pass criteria.

#### D. Output and Reporting Requirements

9. The Consultant will prepare and submit reports in a format and content agreed with RHD, and ADB. The Project Director may require the Consultant to perform other tasks consistent with the above scope, including preparation of technical appraisals/ additional contract documentation, and review and comment on the contractors' proposals. The documentation and reporting requirements included but are not limited to the following:

- (i) Provide monthly report with necessary civil work information including photos.
- (ii) Report and update the works implementation schedule, highlight any unforeseen delays, and timely propose corrective measures.
- (iii) Undertake project performance monitoring and evaluation following the project framework and ADB's Project Performance Management System (PPMS) Handbook and reporting up to project completion.
- (iv) Develop and maintain a storage and retrieval system of records.
- (v) Documenting information supplied by the field teams, decision made at meetings, progress on civil works, certified achievements and milestones, financial records, any deviations from or changes to the contract plan (scope, cost, materials time), correspondences, site diaries, test data and quality control reports, quality survey records, as-built drawings, and progress reports.
- (vi) Prepare Environmental and Social monitoring report and provide inputs to GESI/AP
- (vii) Prepare Project Completion Report.

#### E. Data, Local Services, Personnel and Facilities to be provided by the Client

14. The Client will provide the Consultant with the following:

- (i) Access to design reports prepared, to data, records, and other information required to perform the assigned tasks;
- (ii) Counterpart staff and engineers to work with the Consultant;
- (iii) Recommend to the competent authority for the Consultant and each of the personnel for work permits and other documents as necessary;
- (iv) Assist in obtaining necessary visa for the personnel and, if appropriate, their eligible dependent; Assist in clearance through customs of any property required for the services.
- (v) Issue to officials, agents and representatives of the Government all such instructions as may be necessary or appropriate for the prompt and effective implementation of the services.

- (vi) Office space at site (including utilities, office equipment, and furnishings) for national experts, and for other as-needed field/technical support staff. In case the contract with the contractor is delayed
- (vii) Fully equipped and furnished testing laboratory;
- (viii) Necessary survey equipment.



**TRIBES, MINOR RACES, ETHNIC SECTS AND COMMUNITIES SCREENING CHECKLIST**

Date: \_\_\_\_\_

**A. Instructions**

Indicate if the project requires broad community support (BCS) of tribes, minor races, ethnic sects and communities.<sup>a</sup> BCS is required when project activities involve (a) commercial development of the cultural resources and knowledge of tribes, minor races, ethnic sects and communities, (b) physical displacement from traditional or customary lands; and (c) commercial development of natural resources within customary lands under use that would impact the livelihoods or the cultural, ceremonial, or spiritual use that define the identity tribes, minor races, and ethnic sects and communities.

**B. Tribes, Minor Races, Ethnic Sects and Communities Category**

New       Recategorization — Previous Category

Category A

Category B

Category C

Category FI

**C. Project requires the broad community support of affected tribes, minor races, ethnic sects and communities.**

Yes

No

**D. Comments**

Project Team Comments:

**E. Approval**

Proposed by:

Name:

<p>Signature:</p>  <p>Date:</p>
<p><b>Endorsed by:</b></p>  <p>Name:</p>  <p>Signature:</p>  <p>Date:</p>

<b>KEY CONCERNS</b> (Please provide elaborations on the Remarks column)	YES	NO	NOT KNOWN	Remarks
<b>A. Identification</b>				
1. Are there socio-cultural groups present in or use the project area who may be considered as "tribes" (hill tribes, schedules tribes, tribal peoples), "minorities" (ethnic or national minorities), or "tribes, minor races, ethnic sects and communities " in the project area?				
2. Are there national or local laws or policies as well as anthropological researches/studies that consider these groups present in or using the project area as belonging to "ethnic minorities", scheduled tribes, tribal peoples, national minorities, or cultural communities?				
3. Do such groups self-identify as being part of a distinct social and cultural group?				
4. Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?				
5. Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?				
6. Do such groups speak a distinct language or dialect?				

<b>KEY CONCERNS</b> (Please provide elaborations on the Remarks column)	YES	NO	NOT KNOWN	Remarks
7. Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?				
8. Are such groups represented as "tribes, minor races, ethnic sects and communities" or as "ethnic minorities" or "scheduled tribes" or "tribal populations" in any formal decision-making bodies at the national or local levels?				
<b>B. Identification of Potential Impacts</b>				
9. Will the project directly or indirectly benefit or target tribes, minor races, ethnic sects and communities?				
10. Will the project directly or indirectly affect tribes, minor races, ethnic sects and communities traditional socio-cultural and belief practices? (e.g. child-rearing, health, education, arts, and governance)				
11. Will the project affect the livelihood systems of tribes, minor races, ethnic sects and communities? (e.g., food production system, natural resource management, crafts and trade, employment status)				
12. Will the project be in an area (land or territory) occupied, owned, or used by tribes, minor races, ethnic sects and communities, and/or claimed as ancestral domain?				
<b>C. Identification of Special Requirements</b> <i>Will the project activities include:</i>				
13. Commercial development of the cultural resources and knowledge of tribes, minor races, ethnic sects and communities?				
14. Physical displacement from traditional or customary lands?				
15. Commercial development of natural resources (such as minerals, hydrocarbons, forests, water, hunting or fishing grounds) within customary lands under use that would impact the livelihoods or the cultural, ceremonial, spiritual uses that define the identity and community of tribes, minor races, ethnic sects and communities?				
16. Establishing legal recognition of rights to lands and territories that are traditionally owned or customarily used, occupied or claimed by tribes, minor races, ethnic sects and communities?				

<b>KEY CONCERNS</b> (Please provide elaborations on the Remarks column)	<b>YES</b>	<b>NO</b>	<b>NOT KNOWN</b>	<b>Remarks</b>
17. Acquisition of lands that are traditionally owned or customarily used, occupied or claimed by tribes, minor races, ethnic sects and communities?				

**D. Anticipated project impacts on tribes, minor races, ethnic sects and communities.**

<b>Project component/ activity/ output</b>	<b>Anticipated positive effect</b>	<b>Anticipated negative effect</b>
<b>1. LIST ALL PROJECT COMPONENT / ACTIVITY / OUTPUTS HERE</b>	<b>---- INDICATE EFFECTS TO TRIBES, MINOR RACES, ETHNIC SECTS AND COMMUNITIES OR PUT N/A AS NECESSARY</b>	
2.		
3.		
4.		
5.		

<sup>a</sup> Groups or population identified as Indigenous Peoples within the context of ADB's Safeguard Policy Statement will be referred to in this document as *tribes, minor races, ethnic sects and communities* (following the request of the Government of Bangladesh).

Note: The project team may attach additional information on the project, as necessary.

**RISK ASSESSMENT AND RISK MANAGEMENT PLAN**

<b>Risk Description</b>	<b>Rating</b>	<b>Mitigation Measures</b>	<b>Responsibility</b>
<b>Financial Management and Sustainability</b>			
Risks related to financial management (i) competent staff might not be assigned and trained on time; (ii) internal audit function might not be sufficient for the project; and (iii) implementing agencies do not have unified project reporting and monitoring system.	S	PIU staff with prior ADB experience will be deployed and trained on ADB procedures.  Adequate internal audit staff will be assigned for each implementing agency.  Project monitoring and management information system will be developed.  Financial management expert will be recruited to provide capacity building support for robust and transparent project financial management.	Executing agencies Implementing agencies ADB
Delays in approval and release of government counterpart fund/matching fund and delays in payment to contractors	M	ERD will coordinate for appropriate counterpart fund.  With consultant support, prepare, submit, and approve DPPs and TAPPs on time.	ERD Planning Ministry
<b>Institutional Capacity and Coordination</b>			
Delay or insufficient key staff mobilization in PMUs and PIUs	M	ERD will help expedite the appointment of nodal and other key staff for PIUs by July 2018.	ERD Executing agencies Implementing agencies
Weak and lack of dedicated PIU staff during project implementation period may hamper fast-track implementation of subprojects, including timely completion of due diligence required for subprojects	S	Reinforce PIUs at the project site with consultants to assist the implementing design, construction supervision, safeguard application, procurement, financial management, and reporting.  Recruit TA consultants to support the implementing agencies in the procurement, management, monitoring, and reporting of project activities.  Establish extended ADB mission at Coxsbazar to provide close support on technical, financial, and institutional supports and coordination.	Executing agencies Implementing agencies ADB
Weak interagency coordination among NGOs, UN agencies, national agencies, and other stakeholders due to overlapping roles may delay and undermine effective implementation of project activities	M	The government has set up a project coordination committee at the central level and RRRC at the site to steer the project.  The Project Coordination Committee will act as a policymaking body and provide advice and guidance for smooth project	Project Coordination Committee RRRC

Risk Description	Rating	Mitigation Measures	Responsibility
		<p>implementation, and will coordinate with line agencies to formulate, implement, and monitor the program.</p> <p>Implement flexible and relaxed procurement procedures for emergency and relief procurement and operations, which will help in fast-tracking the project.</p>	
Lack of clear cut mandate and guidance on the roles and responsibilities of different government agencies	M	The Project Coordination Committee will act as a policymaking body and provide advice and guidance whenever there are issues.	Project Coordination Committee
<b>Procurement, Implementation, and Operation</b>			
Delays in subproject selection and approval of DPPs and TAPPs	M	<p>ADB and the implementing agencies will work closely with RRRRC for the selection of subprojects and avoid duplication.</p> <p>Mobilize TA consultants for each sector at the earliest to support in preparing DPPs and TAPPs; ensure approval at the earliest within Q3 2018.</p> <p>Expedite the recruitment of engineers for complex project designs through individual selection process.</p> <p>Expedite the recruitment of consultants for environmental and social safeguards.</p>	ADB RRRC Executing agencies Implementing agencies
Delays in procurement of large packages that need CCGP approvals	M	<p>ADB, the implementing agencies, and project coordination committee will work closely to expedite the approval process.</p> <p>Mobilize the national and international at the earliest to support the implementing agencies in preparing bid documents and packaging.</p>	ADB Implementing agencies
Lack of sufficient construction materials and labor may lead to delays in implementation	M	<p>Where or when necessary, the implementing agencies will facilitate required statutory clearances to ensure adequate access and availability of construction materials for civil works under the project.</p> <p>The government may allow displaced persons to work as a laborer within the camp area for project activities.</p>	Implementing agencies Government of Bangladesh
Difficulty in mobilizing labor and machinery, especially in the camp site due to lack of access roads and storage space for construction materials	M	Cost estimates will be prepared, keeping in mind the appropriate tender premiums, as applicable, especially for more difficult work in the difficult locations or at difficult climatic conditions, to ensure adequate contractor participation. Consider the monsoon and rainy monsoon season in the scheduling of labor and machinery mobilization.	Implementing agencies Contractors

Risk Description	Rating	Mitigation Measures	Responsibility
		<p>Agree on realistic time frames for the mobilization of labor and machinery given the difficulties in access roads and crowded camp.</p>	
<p>Extreme climate events causing disruption of/delay in execution of works [because of a limited working season and unpredictable and harsh weather conditions]</p>	<p>H</p>	<p>Factor in the implementation schedule seasonal weather conditions, including the monsoon season, and expected rainfall, which often triggers further landslides and erosion, potentially damaging constructed infrastructure.</p> <p>Schedule project construction activities in such a way that the available working season is efficiently utilized.</p> <p>Manage access and climate challenges by prioritizing the needs—only those works that can realistically be completed in the given time frame are included.</p> <p>Allocate financial and human resources to project areas for certain periods contingent on when and to what extent extreme weather conditions could restrict works.</p> <p>Include in the contractor’s work schedule longer working shift per day to make up the lost hours due to bad weather.</p>	<p>Implementing agencies Consultants Contractors</p>
<p>Implementation delays due to land acquisition, right of ways, and other safeguards issues</p>	<p>L</p>	<p>Filter out the scopes requiring land acquisition and right of ways during the subproject selection.</p>	<p>Implementing agencies RRRC</p>
<p>Lack of capable contractors, consultants, and suppliers (low implementing capacity of contractors may delay delivery of emergency works within scheduled period)</p>	<p>M</p>	<p>Reduce qualification requirements since works are simple and repetitive, and skilled labor is in short supply.</p> <p>Contractors will be assisted by TA consultants with training on preparation and submission of compliant and responsive bids and train them on understanding of the contract conditions, especially cost and time variations, extra work orders or repeat orders, and orders for additional delivery or modifications; time extensions; liquidated damages; bonus for early completion; and contract amendments.</p> <p>Apply value for money and fit-for-purpose principles in the procurement process.</p> <p>Improve contractors’ cash flow by an advance of 20% against a reputable bank’s guarantee.</p>	<p>ADB Implementing agencies</p>

Risk Description	Rating	Mitigation Measures	Responsibility
Weak monitoring and supervision of civil works resulting in poor quality and delays	M	<p>Provide adequate consulting support to overcome the capacity constraints of the implementing agencies on procurement and contract management.</p> <p>ADB and the implementing agencies will conduct periodic reviews and progress monitoring of all ongoing contracts, to ensure timely and quality completion of works.</p> <p>Mobilize ADB's TA consultants to monitor and advise on construction quality and safeguards compliance.</p>	ADB Implementing agencies
Lack of sustainability of infrastructure and physical assets built or supplied under the project, due to lack of ownerships and weak management mechanism	M	<p>Transfer assets to the respective beneficiary agencies or local government to ensure utilization and maintenance.</p> <p>Provision of operations and maintenance of the assets into the procurement package until grant availability (June 2021).</p> <p>Request the government to allocate annual budgets for long-term sustainability of infrastructure (water treatment plants and roads).</p>	Executing agencies Implementing agencies
<b>Governance</b>			
Procurement risks - lack of transparency, collusion among the contractors; and non-transparency in distribution of goods and equipment to beneficiaries	M	<p>Apply e-GP process for procurement.</p> <p>Apply ADB rules on prior review and approval for at least two procurement packages for each agency and all consultant recruitment.</p> <p>Conduct frequent and close monitoring, audits, and reviews.</p> <p>Strengthen ADB communication strategy to emphasize ADB's message of zero tolerance on corruption.</p> <p>Ensure close supervision and mechanism in the distribution of goods and equipment through credible agencies.</p>	Executing agencies Implementing agencies ADB
Misuse and sale of distributed goods and equipment to market/bazaar for cash	M	<p>Strengthen ADB communication strategy to explain the objectives of the project and ADB policies.</p> <p>Executing and/or implementing agencies through RRRC will closely monitor and review reported cases.</p>	Executing agencies Implementing agencies ADB RRRC
<b>Safeguards</b>			
Subprojects selection and implementation may be delayed due to	L	Filter out all protected areas during subproject selection.	Executing agencies Implementing agencies ADB



<b>Risk Description</b>	<b>Rating</b>	<b>Mitigation Measures</b>	<b>Responsibility</b>
protected forest and critical natural habitat		Contact the Divisional Forest Office in Coxsbazar to identify the boundary of legally designated or proposed protected areas in Coxsbazar.  Conduct afforestation or tree plantation in barren hills or deforested land for proper compensation.	RRRC BFD
Project activities may get hampered due to human–elephant conflict (some subproject area may fall under elephant migration path)	L	Filter out all seasonal or permanent elephant migration routes during subproject selection—information on elephant routes will be confirmed with the Department of Forest and IUCN.  Ensure that the construction sites will be selected outside the elephant route.	Executing agencies Implementing agencies ADB RRRC BFD
<b>Gender and Social Inclusion</b>			
Increase in human and drug trafficking, and increased Sexually Transmitted Infections (including HIV) prevalence as a result of new population into the communities	M	Prepare the GESI action plan and conduct awareness-raising programs throughout the camps, host communities, and migrant laborers.  Maintain close coordination with organizations providing health services to ensure early detection and prevention of sexually transmitted infections (including HIV)  Provide zero tolerance to drug trafficking notice in project site and the implementing agencies should ensure workers' consent on the issue prior to engagement at work.	Executing agencies Implementing agencies ADB

ADB = Asian Development Bank, BFD = Bangladesh Forest Department, BRM = Bangladesh Resident Mission, CCGP = cabinet committee for government purchase, DPP = development project proposal, e-GP = electronic government procurement, ERD = Economic Relations Division, GESI = gender equality and social inclusion, H = high, IUCN = International Union for Conservation of Nature, L = low, M = moderate, NGO = nongovernment organization, PIU = project implementation unit, PMU = project management unit, RRRC = Refugees Relief and Repatriation Commission, S = substantial, TA = technical assistance, TAPP = Technical Assistance Project Performa, UN = United Nations.

Source: Asian Development Bank.