

# Project Administration Manual

Project Number: 47243-004  
Loan Number: LXXXX  
September 2018

## Bangladesh: Rural Connectivity Improvement Project

## ABBREVIATIONS

ADB	–	Asian Development Bank
CPF	–	community participation framework
CPP	–	community participation plan
DES		
EMP	–	environmental management plan
EMOP		
GAP	–	gender action plan
IEE	–	initial environmental examination
LGED	–	Local Government Engineering Department
km		kilometer
MOLGRDC	–	Ministry of Local Government Rural Development & Cooperation
OCB	–	open competitive bidding
PAM	–	project administration manual
PISC	–	project implementation support consultant
PIU	–	project implementation unit
PMU	–	project management unit
RCIP		Rural Connectivity Improvement Project
SPS	–	Safeguard Policy Statement (2009)
SSS		
TRTA	–	transaction technical assistance

## **CONTENTS**

I.	PROJECT DESCRIPTION	1
II.	IMPLEMENTATION PLANS	2
	A. Project Readiness Activities	2
	B. Overall Project Implementation Plan	3
III.	PROJECT MANAGEMENT ARRANGEMENTS	4
	A. Project Implementation Organizations: Roles and Responsibilities	4
	B. Key Persons Involved in Implementation	5
	C. Project Organization Structure	6
IV.	COSTS AND FINANCING	8
	A. Cost Estimates Preparation and Revisions	8
	B. Key Assumptions	9
	C. Detailed Cost Estimates by Expenditure Category	9
	D. Allocation and Withdrawal of Loan Proceeds	10
	E. Detailed Cost Estimates by Financier	11
	F. Detailed Cost Estimates by Outputs	12
	G. Detailed Cost Estimates by Year	13
	H. Contract and Disbursement S-Curve	14
	I. Fund Flow Diagram	16
V.	FINANCIAL MANAGEMENT	17
	A. Financial Management Assessment	17
	B. Disbursement	20
	C. Accounting	22
	D. Auditing and Public Disclosure	22
VI.	PROCUREMENT AND CONSULTING SERVICES	23
	A. Advance Contracting and Retroactive Financing	23
	B. Procurement of Goods, Works, and Consulting Services	24
	C. Procurement Plan	26
	D. Consultants' Terms of Reference	26
VII.	SAFEGUARDS	26
	A. Environment	26
	B. Grievance Redress Mechanism	29
	C. Involuntary Resettlement and Indigenous Peoples	30
VIII.	GENDER AND SOCIAL DIMENSIONS	30
IX.	PERFORMANCE MONITORING, EVALUATION, REPORTING, AND COMMUNICATION	34
	A. Project Design and Monitoring Framework	34
	B. Monitoring	36
	C. Evaluation	37
	D. Reporting	38
	E. Stakeholder Communication Strategy	38
X.	ANTICORRUPTION POLICY	39
XI.	ACCOUNTABILITY MECHANISM	39
XII.	RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL	40

## List of Attachments

Attachment A: Procurement Plan	41
Attachment B: Terms of Reference for Consulting Services of Project Implementation Support Consultant (PISC)	56
Attachment C: Outline Terms of Reference for Capacity Development Technical Assistance for System-Based Road Master Planning	91
Attachment D: Outline Terms of Reference	100
Attachment E: Gender Action Plan Reporting Template	104
Attachment F: Road List for Rural Connectivity Improvement Project	105
Attachment G: Sample Summary Sheet on Bid Evaluation	115

### **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 Local Government Engineering Department (LGED) is wholly responsible for the implementation of ADB-financed project, 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 LGED of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

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

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



## I. PROJECT DESCRIPTION

1. Rural connectivity is a key component of rural development in Bangladesh. Rural roads contribute significantly to generating increased agricultural incomes and productive employment opportunities, alongside promoting access to economic and social services. Rural roads are the virtual lifelines for the vast multitude residing in rural areas. Bangladesh has a large network of rural roads, many of these roads were constructed in years 1990–2010 on earthen embankments owned by *Union Parishads* (rural councils) or *Zila Parishads* (district councils), and they are vital to the crucially important agricultural sector of the country. Since 1995, the government, with the support of the international development community, has continued to expand and improve the rural roads network. During the past decades, rural infrastructure in Bangladesh significantly improved. Despite progress, rural connectivity in Bangladesh remains weak, impeding the physical and economic access. About 40% of the rural population has got access to all-weather roads. Only 28% of the roads are paved and in good or fair condition.

2. The project is aligned with the strategy set out by the Seventh Five-Year Plan (2016–2020) having the following impact: Connectivity between rural communities, productive agricultural areas, and socioeconomic centers in Bangladesh improved. The project will have the following outcome: transport efficiency and related employment generated in target areas increased.

3. The project will have three outputs: Output 1: Rural road conditions between the selected rural communities, productive agricultural areas, and socioeconomic centers improved. Road conditions of about 1,700 km rural roads between the selected rural communities, productive agricultural areas, and socio-economic centers improved to all-weather standards with safety<sup>1</sup> and climate-resilient features<sup>2</sup> and maintained for 5 years.<sup>3</sup> Output 2: Capacity of rural infrastructure agency and road users in project areas enhanced. This output consists of three subcomponents: (a) Local Government Engineering Department (LGED) trained on road asset management, road safety, contract management, financial management and climate-resilient road design and construction; (b) road users' awareness enhanced on road safety, human trafficking, and sexually transmitted infection prevention; and (c) women workers' skills on road construction and maintenance enhanced. Output 3: Rural road master planning enhanced. The rural road master plan will be upgraded for the entire country using geographic information system technology.

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<sup>1</sup> Road safety measures such as cautionary and information signs, guard posts, speed breakers, and object markers.

<sup>2</sup> Adopt climate change resilience design parameters pertaining to pavement, drainage, earthworks, compaction and quality control. This includes slope protection where slope is subjected to water level fluctuations, rigid pavement of reinforced cement concrete is provided at submersible road sections, additional cross drainages, and rigid pavement on sections of roads connecting to cyclone shelters.

<sup>3</sup> Five packages in four districts have been selected as pilot contracts with maintenance component. The government will finance the maintenance after the loan closing date.

## II. IMPLEMENTATION PLANS

### A. Project Readiness Activities

**Table 1: Project Readiness Activities**

Indicative Activities	2018								2019			Responsible Agency
	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
<b>Advance contracting actions</b>												
<i>(i) Project Implementation Support Consultant</i>												
a) CSRN advertisement	X	X										LGED
b) Request for Proposals			X	X	X							LGED
c) Submission of proposal and evaluation						X	X	X				LGED, ADB
d) Negotiations and award									X	X		LGED, MOLGRDC, CCGP
d) Mobilization										X		LGED
<i>(ii) Procurement of 17 civil works packages (OCB, single stage-one envelope)</i>												LGED
a) Bid advertisement						X						LGED
b) Bid submission and evaluation							X	X				LGED, ADB
c) Contract award									X	X		LGED, MOLGRDC
<b>Project implementation arrangements</b>												LGED
Approval of IEE								X				MOEF
Approval of Detailed Project Reports		X										PC, MOLGRDC, LGED
Loan negotiations					X							ADB, MOF
ADB Board approval							X					ADB
Loan signing								X				ADB, MOF
Government legal opinion provided									X			MOLJPA, MOF
Loan effectiveness									X			ADB/MOF

ADB = Asian Development Bank, CSRN = consulting services recruitment notice, IEE = initial environmental examination, LGED = Local Government Engineering Department, MOEF = Ministry of Environment and Forestry, MOF = Ministry of Finance, MOLGRDC = Ministry of Local Government Rural Development & Cooperation, MOLJPA = Ministry of Law, Justice and Parliamentary Affairs, OCB = open competitive bidding, PC = Planning Commission.



## B. Overall Project Implementation Plan

**Table 2: Implementation Schedule**

Item	2018					2019					2020					2021					2022					2023					2024					
	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A
<b>Output 1: Rural road conditions between the selected rural communities, productive agricultural areas, and socioeconomic centers improved</b>																																				
1.1 Award contracts for improving about 1,700 km of roads to all-weather standards by Q3 2019 and complete construction by Q3 2021, and maintain until Q3 2026.																																				
1.2. Construction works																																				
1.3. Maintenance period for five (5) pilot packages, one in each Division																																				
<b>Output 2: Capacity of rural infrastructure agency and road users in project areas enhanced</b>																																				
2.1 Mobilize project implementation support consultants and capacity development consultants by Q2 2019																																				
2.2 Develop capacity development training programs for LGED and project communities by Q4 2019																																				
2.3 Conduct the training programs by Q4 2020																																				
2.4 Develop manuals for performance-based maintenance, and climate-resilient design and construction by Q4 2020																																				
<b>Output 3: Road master planning enhanced</b>																																				
3.1 Mobilize information technology consultants for road master planning by Q4 2019																																				
3.2 Develop capacity development training programs for LGED on system-based road master planning by Q4 2020																																				
<b>Project Management</b>																																				
4.1 Recruitment of project implementation support consultant (PISC)																																				
4.1.1 PISC services																																				
4.2 Recruitment of transaction technical assistance (TRTA) consultant																																				
4.2.1 Capacity development activities																																				
4.3 Recruitment of capacity development consultant for GIS-based development of rural road masterplan																																				
4.3.1 GIS development for road masterplan																																				
4.4 Environment management plan activities																																				
4.5 GAP activities																																				
4.6 Communication strategy key activities																																				
4.7 Biannual and midterm review																																				
4.8 Project completion report																																				

ADB = Asian Development Bank, GAP = gender action plan, LGED = Local Government Engineering Department, TRTA = transaction technical assistance, DPRs = detailed project reports, OCB = open competitive bidding.

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>
Executing agency: Local Government Engineering Department (LGED)	<p>LGED will be responsible for:</p> <ul style="list-style-type: none"> <li>• overall coordination of project implementation</li> <li>• timely counterpart fund availability</li> <li>• compliance with loan covenants</li> <li>• arrangements for financial audits and implementation of recommended actions for improving financial management</li> </ul>
Implementing Agency: Project Management Unit (PMU) – LGED	<p>The PMU has been established within LGED in Dhaka and is headed by a Project Director with overall responsibility for executing the project. The PMU is responsible for overall project management covering:</p> <ul style="list-style-type: none"> <li>• consultant recruitment and procurement of works and goods;</li> <li>• payment of goods, works, and consultants;</li> <li>• overall contract supervision and quality assurance control;</li> <li>• project performance monitoring;</li> <li>• project financial management including timely submission of withdrawal applications, maintenance of financial records and accounts; and</li> <li>• submission of quarterly and annual project progress reports, semi-annual safeguard monitoring reports (environment), and project completion report.</li> </ul>
Project Implementation Units (PIUs)	<p>Five PIUs will be established at the division level, each located in Dhaka, Chattogram, Khulna, Rajshahi and Rangapu. Each PIU will be headed by a Deputy Project Director and will be responsible for day-to-day management of the civil works contracts in their respective areas. The functions of the PIUs will include:</p> <ul style="list-style-type: none"> <li>• close coordination with PMU on management of civil works contracts, timely disbursements, compliance with loan covenants and any project management issues;</li> <li>• day-to-day inspection of civil works and quality assurance control;</li> <li>• monitoring environmental management plan implementation;</li> <li>• addressing project related grievances on gender and safeguards;</li> <li>• preparing progress reports for assigned contracts;</li> <li>• verification and certification of contractors' claims and submission of required documents for withdrawal applications; and</li> <li>• maintenance of project financial and other records.</li> </ul>
District Offices	<p>Existing staff in thirty-four (34) District Offices will be given additional charge for RCIP to perform the following functions:</p> <ul style="list-style-type: none"> <li>• procurement of civil works;</li> <li>• day-to-day inspection of civil works and quality assurance control;</li> <li>• preparation of progress reports for assigned contracts;</li> <li>• verification and certification of contractors' claims and submission of required documents for withdrawal applications;</li> <li>• receipt and review of claims from contractors; preparation and submission of Memorandum of Payment (MOP) and Requisition Form to PMU for processing;</li> <li>• payments to contractors; and</li> <li>• maintenance of project financial and other records.</li> </ul>

<i>Upazila Offices</i>	Existing staff in 190 LGED offices at <i>upazila</i> -level will be given additional charge for RCIP to perform the following functions: <ul style="list-style-type: none"> <li>• conduct of day-to-day inspection of civil works and quality assurance control;</li> <li>• assistance to preparation of progress reports for assigned contracts;</li> <li>• verification and certification of contractors' claims and submission of required documents for withdrawal applications; and</li> <li>• maintenance of project records.</li> </ul>
ADB	ADB will monitor and review overall implementation of the project including compliance with loan agreement, project agreement and ADB guidelines. ADB will: <ul style="list-style-type: none"> <li>• field biannual review missions, midterm review mission, and project completion review mission to assess project implementation progress and compliance with loan covenants;</li> <li>• review PMU's submissions for procurement of goods, civil works, and services; and</li> <li>• ensure timely disbursement of funds subject to PMU's submission of withdrawal applications.</li> </ul>

ADB = Asian Development Bank, LGED = Local Government Engineering Department.

Source: Asian Development Bank.

## B. Key Persons Involved in Implementation

### Executing Agency and Implementing Agency

Local Government Engineering Department (LGED)

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### Asian Development Bank

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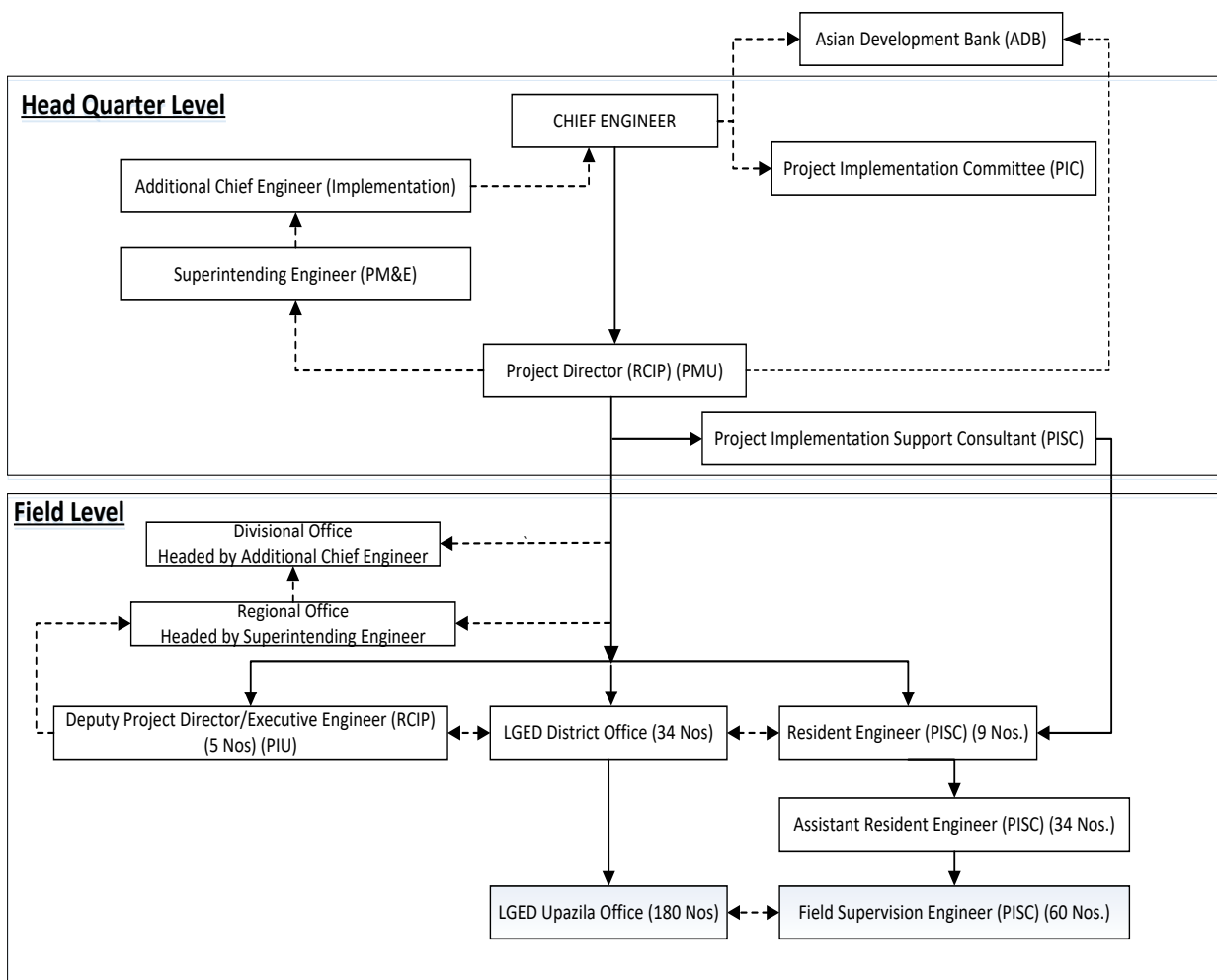
Mission Leader

Mr. Lee Ming Tai  
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### C. Project Organization Structure

4. The following flow chart and table show the reporting lines and essential internal structures of the project implementation units (PIUs) and their staffing assignments.

**Figure 1: Project Organization Structure**



LGED = Local Government Engineering Department, PD = Project Director, PM&E = Project Monitoring and Evaluation, RCIP = Rural Connectivity Improvement Project.

Table 4: Staffing Assignments and Recruitment Plan

No.	Designation	Grade	Number of Post (Deputation)	Number of Post (Out-Sourcing)	Total Number of Post	Appointment Type
<b>Project Management Unit (PMU)</b>						
1	Project Director	Grade-4	1	-	1	Deputation
2	Deputy Project Director	Grade-5	2	-	2	Deputation
3	Sr. Assistant Engineer	Grade-6	2	-	2	Deputation
4	Assistant Engineer	Grade-9	1	1	2	Deputation/ Out Sourcing
5	Sub-Assistant Engineer	Grade-10	2	1	3	Deputation/ Out Sourcing
6	Accountant	Grade-11	1	-	1	Deputation
7	Account Assistant	Grade-13	1	1	2	Deputation/ Out Sourcing
8	Office Assistant cum Computer Typist	Grade-16	-	3	3	Out Sourcing
9	Driver	Grade-16	2	-	2	Deputation
10	Office Support	Grade-20	1	2	3	Deputation/ Out Sourcing
<b>Sub Total</b>			<b>13</b>	<b>8</b>	<b>21</b>	
<b>Project Implementation Units (PIUs) – 5 Divisional Offices</b>						
11	Deputy Project Director/Executive Engineer	Grade-5	5	-	5	Additional Charge
12	Assistant Engineer	Grade-9	5	-	5	Deputation/ Additional Charge
13	Office Assistant cum Computer Typist	Grade-16	-	5	5	Out Sourcing
14	Office Support	Grade-20	-	5	5	Deputation/ Out Sourcing
<b>Sub Total</b>			<b>10</b>	<b>10</b>	<b>20</b>	
<b>34 LGED District Offices <sup>a</sup></b>						
15	Lab Technician	Grade-11	-	34	34	Out Sourcing
16	Account Assistant	Grade-16	-	34	34	Out Sourcing
17	Road Roller Driver	Grade-16	-	20	20	Out Sourcing
<b>Sub Total</b>			<b>-</b>	<b>88</b>	<b>88</b>	
<b>LGED Offices at Upazila Level <sup>b</sup></b>						
18	Sub-Assistant Engineer	Grade-10	8	82	90	Deputation/ Out Sourcing
19	Work Assistant	Grade-16	15	165	180	Deputation/ Out Sourcing
<b>Sub Total</b>			<b>23</b>	<b>247</b>	<b>270</b>	
<b>Total <sup>c</sup></b>			<b>46</b>	<b>353</b>	<b>399</b>	

LGED = Local Government Engineering Department

<sup>a</sup> All staff in the 34 District Offices will be involved in project implementation. Each District Office is staffed with one position for Executive Engineer, Senior Assistant Engineer, Assistant Engineer, Assistant Engineer (Mechanical), Sociologist, Sub-Assistant Engineer, Mechanical Foreman, Laboratory Technician, Upper Division Assistant, Accountant, Accountant Assistant, Steno-typist/Computer Operator, and Electrician. Other staff are drivers and maintenance.

<sup>b</sup> The project will also use the existing Upazila-level LGED set-up comprising 190 staff each for Upazila Engineer, Upazila Assistant Engineer, Draftsman (Sub-Assistant Engineer), Community Organizer, Accountant, Surveyors, Electrician, Office Assistant, Accounts Assistant and C.C.T/Computer Operator; 380 Sub-Assistant Engineers, 780 work assistants; and 580 guards and maintenance.

<sup>c</sup> The total number of dedicated project staff is 399, of which 46 are permanent LGED staff and 353 are outsourced/contracted staff.

#### IV. COSTS AND FINANCING

5. The project is estimated to cost \$285.3 million. The investment plan is summarized in Table 5.

**Table 5: Summary Cost Estimates**  
(\$ million)

Item	Amount <sup>a</sup>
<b>A. Base Cost<sup>b</sup></b>	
1. Rural road conditions between selected rural communities, productive agricultural areas and socioeconomic centers improved <sup>c</sup>	233.2
2. Capacity of rural infrastructure agency and road users in project areas enhanced <sup>d</sup>	14.8
3. Rural road master planning enhanced <sup>e</sup>	10.4
<b>Subtotal (A)</b>	<b>258.4</b>
<b>B. Contingencies<sup>f</sup></b>	<b>16.3</b>
<b>C. Financial Charges during Implementation<sup>g</sup></b>	<b>10.6</b>
<b>Total (A+B+C)</b>	<b>285.3</b>

<sup>a</sup> Includes taxes and duties of \$38.8 million. The government will finance taxes and duties of about \$38.8 million.

<sup>b</sup> In March 2018 prices.

<sup>c</sup> Includes a project design advance to support detailed engineering design, equipment and vehicles, project management, and equipment operation and maintenance.

<sup>d</sup> Includes the cost of project implementation and support consultant.

<sup>e</sup> Includes the cost of information technology consultant.

<sup>f</sup> Physical contingencies computed at 2% for civil works. Price contingencies computed at an average of 1.5% on foreign exchange costs and 6.3% on local currency costs; include provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

<sup>g</sup> Include interest and commitment charges. Interest during construction for the ordinary capital resources (OCR) regular loan has been computed at the 5-year US dollar fixed-swap rate plus an effective contractual spread of 0.5% and a maturity premium of 0.1%. Commitment charge for the OCR regular loan is 0.15% per year to be charged on the undisbursed loan amount. Interest during construction for the OCR concessional loan) is computed at 2% per annum.

Source: Asian Development Bank estimates.

6. The summary financing plan is in Table 6. ADB and the government will finance the expenditures in relation to investment costs, recurrent costs, contingencies.<sup>4</sup>

**Table 6: Financing Plan**

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank	200.0	70.0
Ordinary capital resources (regular loan)	100.0	35.0
Ordinary capital resources (concessional loan)	100.0	35.0
Government	85.3	30.0
<b>Total</b>	<b>285.3</b>	<b>100.0</b>

Source: Asian Development Bank estimates.

#### A. Cost Estimates Preparation and Revisions

7. The cost estimates were prepared by ADB with information on the investment costs extracted from the consultant's detailed project report. The cost estimates were based on March 2018 prices.

<sup>4</sup> Taxes and duties, and financing charges during implementation will be borne by the government.

## B. Key Assumptions

8. The following key assumptions underpin the cost estimates and financing plan:

- (i) Exchange rate: Tk 83 = \$1.00 (as of March 2018).
- (ii) Price contingencies based on expected cumulative inflation over the implementation period are as follows:

**Table 7: Escalation Rates for Price Contingency Calculation (%)**

Item	2018	2019	2020	2021	2022	2023	Average
Foreign rate of price inflation	1.5%	2.3%	3.8%	5.4%	6.9%	8.1%	1.5%
Domestic rate of price inflation	6.3%	9.5%	16.4%	23.7%	31.5%	37.8%	6.3%

Source: Asian Development Bank estimates.

## C. Detailed Cost Estimates by Expenditure Category

**Table 8: Cost Estimates by Expenditure Category**  
(\$ million)

Items	\$ million	% of Total Base Cost
<b>A. Investment Costs</b>		
1. Civil Works <sup>a</sup>	214.27	82.9%
2. Equipment and Vehicles	9.00	3.5%
3. Project Design Advance	2.60	1.0%
4. Consultancy Services <sup>b</sup>	25.22	9.8%
<b>Subtotal (A)</b>	<b>251.09</b>	<b>97.2%</b>
<b>B. Recurrent Costs<sup>c</sup></b>		
1. Project Management	4.95	1.9%
2. Equipment Operation and Maintenance	2.39	0.9%
<b>Subtotal (B)</b>	<b>7.34</b>	<b>2.8%</b>
<b>Total Base Cost</b>	<b>258.43</b>	<b>100.0%</b>
<b>C. Contingencies</b>		
1. Physical Contingencies	4.29	1.7%
2. Price Contingencies	11.99	4.6%
<b>Subtotal (C)</b>	<b>16.28</b>	<b>6.3%</b>
<b>D. Financing Charges During Implementation</b>		
1. Interest and Commitment Charges	10.60	4.1%
<b>Subtotal (D)</b>	<b>10.60</b>	
<b>Total Project Cost (A+B+C+D)</b>	<b>285.31</b>	<b>110.4%</b>

Notes: Numbers may not sum precisely because of rounding.

<sup>a</sup> Include cost of climate adaptation of \$19.7 million.

<sup>b</sup> Include cost of training on safeguards for environment, social mitigation, and gender.

<sup>c</sup> Incremental recurrent costs include bank charges, local transport, insurance, office equipment and office operations.

Source: Asian Development Bank estimates.

**D. Allocation and Withdrawal of Loan Proceeds****Table 9: ADB Ordinary Capital Resources Regular Loan**

CATEGORY		Total Amount allocated for ADB financing	ADB FINANCING BASIS
No.	Item		Percentage and Basis for Withdrawal from the Loan Account
1	Civil Works	80,105,000	75% of total expenditure
2	Equipment and Vehicles	3,375,000	75% of total expenditure
3	Consulting Services	9,700,000	100% of total expenditure claimed*
4	Equipment O&M (Project Management)	1,140,000	100% of total expenditure claimed*
5	Unallocated	5,680,000	
	<b>TOTAL</b>	<b>100,000,000</b>	

\*Exclusive of taxes and duties imposed within the territory of the Borrower.

**Table 10: ADB Ordinary Capital Resources Concessional Loan**

CATEGORY		Total Amount allocated for ADB financing	ADB FINANCING BASIS
No.	Item		Percentage and Basis for Withdrawal from the Loan Account
1	Civil Works	80,105,000	75% of total expenditure
2	Equipment and Vehicles	3,375,000	75% of total expenditure
3A	Consulting Services	9,700,000	100% of total expenditure claimed*
3B	Project Design Advance (Principal and Interest charges)	2,000,000	100% of total expenditure claimed*
4	Equipment O&M (Project Management)	1,140,000	100% of total expenditure claimed*
5	Unallocated	3,680,000	
	<b>TOTAL</b>	<b>100,000,000</b>	

\*Exclusive of taxes and duties imposed within the territory of the Borrower.



## E. Detailed Cost Estimates by Financier

**Table 11: Cost Estimates by Financier**  
(\$ million)

Item	ADB		Government		Total Costs	Taxes & Duties
	Amount	%	Amount	%		
<b>A. Investment Costs</b>						
1. Civil Works	160.21	75.0%	54.06	25%	214.27	27.86
2. Equipment and Vehicles	6.75	75.0%	2.25	25%	9.00	0.63
3. Project Design Advance	2.00	77.0%	0.60	23%	2.60	
4. Consulting Services <sup>a b</sup>	19.40	77.0%	5.82	23%	25.22	7.57
<b>Subtotal (A)</b>	<b>188.36</b>	<b>75.0%</b>	<b>62.73</b>	<b>25%</b>	<b>251.09</b>	
<b>B. Recurrent Costs <sup>c</sup></b>						
1. Project management	0.00	-	4.95	100.0%	4.95	0.50
2. Equipment operation & maintenance	2.28	95.0%	0.11	5.0%	2.39	0.12
<b>Subtotal (B)</b>	<b>2.28</b>	<b>31.0%</b>	<b>5.06</b>	<b>69.0%</b>	<b>7.34</b>	
<b>Total Base Cost</b>	<b>190.64</b>	<b>74.0%</b>	<b>67.79</b>	<b>26.0%</b>	<b>258.43</b>	
<b>C. Contingencies</b>						
1. Physical Contingencies	3.68	85.8%	0.61	14.2%	4.29	0.56
2. Price Contingencies	5.68	47.4%	6.31	52.6%	11.99	1.56
<b>Subtotal (C)</b>	<b>9.36</b>	<b>57.5%</b>	<b>6.92</b>	<b>42.5%</b>	<b>16.28</b>	
<b>D. Financing Charges During Implementation</b>						
1. Interest Charges	0.00	0.0%	10.60	100.0%	10.60	
<b>Subtotal (D)</b>	<b>0.00</b>	<b>0.0%</b>	<b>10.60</b>	<b>100.0%</b>	<b>10.60</b>	
<b>Total Project Cost (A+B+C+D)</b>	<b>200.00</b>	<b>70.0%</b>	<b>85.31</b>	<b>30.0%</b>	<b>285.31</b>	<b>38.80</b>
<b>% Total Project Cost</b>		<b>70.0%</b>		<b>30.0%</b>	<b>100%</b>	

Note: Numbers may not sum precisely because of rounding.

<sup>a</sup> Include cost of training on safeguards for environment, social mitigation, and gender.

<sup>b</sup> Net amount of consultancy services (exclusive of all taxes) shall be paid from the ADB fund.

<sup>c</sup> Recurrent costs include salaries, bank charges, local transport, insurance and office equipment and operations.

Source: Asian Development Bank estimates.

## F. Detailed Cost Estimates by Outputs

**Table 12: Detailed Cost Estimates by Outputs**  
(\$ million)

	<b>Output 1 Road Improvement</b>	<b>Output 2 Capacity Development</b>	<b>Output 3 Road Masterplan</b>	<b>Total</b>
<b>A. Investment Costs</b>				
1. Civil Works	214.27			214.27
2. Equipment and Vehicles	9.00			9.00
3. Project Design Advance	2.60			2.60
4. Consulting Services <sup>a</sup>		14.82	10.40	25.22
<b>Subtotal (A)</b>	<b>225.87</b>	<b>14.82</b>	<b>10.40</b>	<b>251.09</b>
<b>B. Recurrent Costs <sup>b</sup></b>				
1. Project management	4.95			4.95
2. Equipment operation & maintenance	2.39			2.39
<b>Subtotal (B)</b>	<b>7.34</b>			<b>7.34</b>
<b>Total Base Cost</b>	<b>233.21</b>	<b>14.82</b>	<b>10.40</b>	<b>258.43</b>
<b>C. Contingencies</b>				
1. Physical Contingencies				4.29
2. Price Contingencies				11.99
<b>Subtotal (C)</b>				<b>16.28</b>
<b>D. Financial Charges During Implementation</b>				
1. Interest During Implementation				10.60
<b>Subtotal (D)</b>				<b>10.60</b>
<b>Total Project Cost (A+B+C+D)</b>				<b>285.31</b>

Note: Numbers may not sum precisely because of rounding.

<sup>a</sup> Includes cost of training on safeguards for environment, social mitigation, and gender.

<sup>b</sup> Recurrent costs include salaries, bank charges, local transport, insurance and office equipment and operations.

Source: Asian Development Bank estimates.

## G. Detailed Cost Estimates by Year

**Table 13: Detailed Cost Estimates by Year**  
(\$ million)

Cost Incurred by Year	Total Cost	Cost Per Year				
		2019 15%	2020 20%	2021 30%	2022 20%	2023 15%
<b>Annual Expenditure %</b>						
<b>A. Investment Costs</b>						
1. Civil Works	214.27	32.14	42.85	64.28	42.85	32.14
2. Equipment and Vehicles	9.00	1.35	1.80	2.70	1.80	1.35
3. Project Design Advance	2.60	2.60	-	-	-	-
4. Consulting Services <sup>a</sup>	25.22	3.78	5.04	7.57	5.04	3.78
<b>Subtotal (A)</b>	<b>251.09</b>	<b>37.66</b>	<b>50.22</b>	<b>75.33</b>	<b>50.22</b>	<b>37.66</b>
<b>B. Recurrent Costs <sup>b</sup></b>						
1. Project Management	4.95	0.74	0.99	1.49	0.99	0.74
2. Equipment O&M	2.39	0.36	0.48	0.72	0.48	0.36
<b>Subtotal (B)</b>	<b>7.34</b>	<b>1.10</b>	<b>1.47</b>	<b>2.20</b>	<b>0.48</b>	<b>1.10</b>
<b>Total Base Cost</b>	<b>258.43</b>	<b>38.76</b>	<b>51.69</b>	<b>77.53</b>	<b>51.69</b>	<b>38.76</b>
<b>C. Contingencies</b>						
1. Physical Contingencies	4.29	0.64	0.86	1.29	0.86	0.64
2. Price Contingencies	11.99	1.80	2.40	3.60	2.40	1.80
<b>Subtotal (C)</b>	<b>16.28</b>	<b>2.44</b>	<b>3.26</b>	<b>4.88</b>	<b>3.26</b>	<b>2.44</b>
<b>D. Financing Charges During Implementation</b>						
1. Interest and Commitment Charges	10.60	1.59	2.12	3.18	2.12	1.59
<b>Subtotal (D)</b>	<b>10.60</b>	<b>1.59</b>	<b>2.12</b>	<b>3.18</b>	<b>2.12</b>	<b>1.59</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>285.31</b>	<b>42.80</b>	<b>57.06</b>	<b>85.59</b>	<b>57.06</b>	<b>42.80</b>

Note: Numbers may not sum precisely because of rounding.

<sup>a</sup> Includes cost of training on safeguards for environment, social mitigation, and gender.

<sup>b</sup> Recurrent costs include salaries, bank charges, local transport, insurance and office equipment and operations.

Source: Asian Development Bank estimates.

## H. Contract Award and Disbursement S-Curve

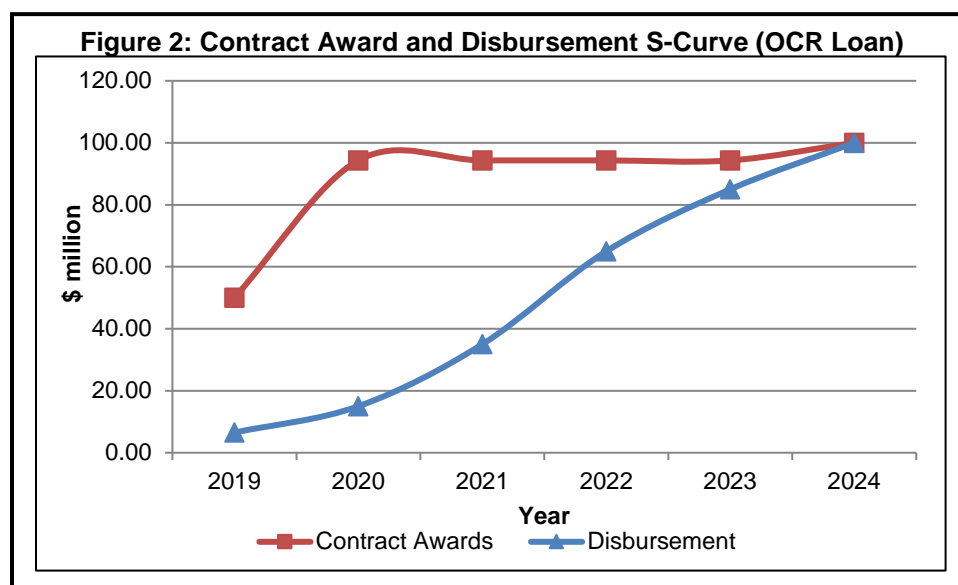
**Table 14: Contract Awards and Disbursement Baseline Projections (OCR/COL)**  
(\$ million)

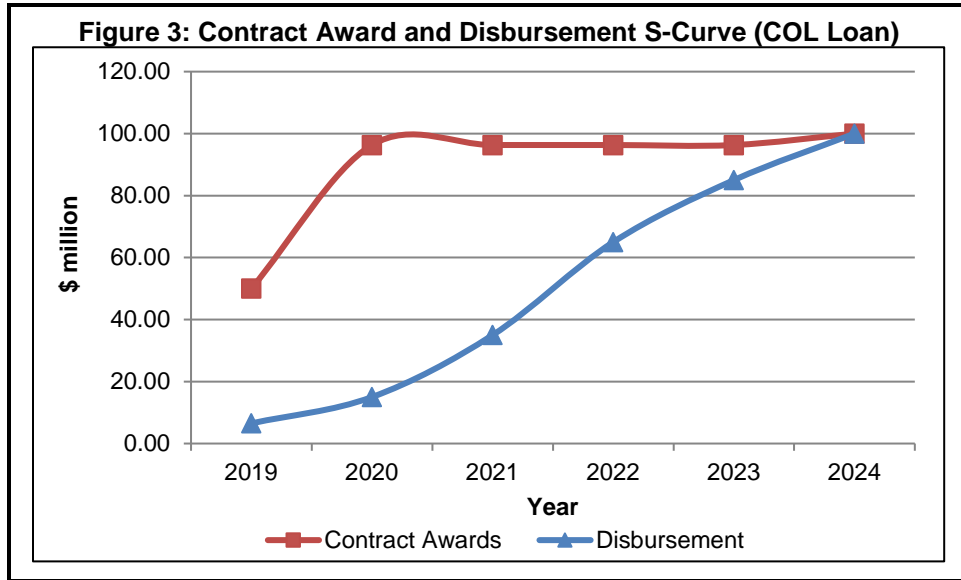
OCR	Contract Awards					Disbursements				
Year	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2019	30.00	0.00	10.00	10.00	50.00	0.00	4.50	0.00	2.00	6.50
2020	10.00	15.00	10.00	9.32	44.32	1.50	2.00	2.50	2.50	8.50
2021	0.00	0.00	0.00	0.00	0.00	5.00	5.00	5.00	5.00	20.00
2022	0.00	0.00	0.00	0.00	0.00	7.50	7.50	7.50	7.50	30.00
2023	0.00	0.00	0.00	0.00	0.00	5.00	5.00	5.00	5.00	20.00
2024	0.00	5.68			5.68	5.00	5.00	5.00		15.00

COL	Contract Awards					Disbursements				
Year	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2019	32.00	0.00	8.00	10.00	50.00	0.00	4.50	0.00	2.00	6.50
2020	10.00	15.00	10.00	11.32	46.32	1.50	2.00	2.50	2.50	8.50
2021	0.00	0.00	0.00	0.00	0.00	5.00	5.00	5.00	5.00	20.00
2022	0.00	0.00	0.00	0.00	0.00	7.50	7.50	7.50	7.50	30.00
2023	0.00	0.00	0.00	0.00	0.00	5.00	5.00	5.00	5.00	20.00
2024	0.00	3.68			3.68	5.00	5.00	5.00		15.00

COL = OCR concessional loan, OCR = ordinary capital resources

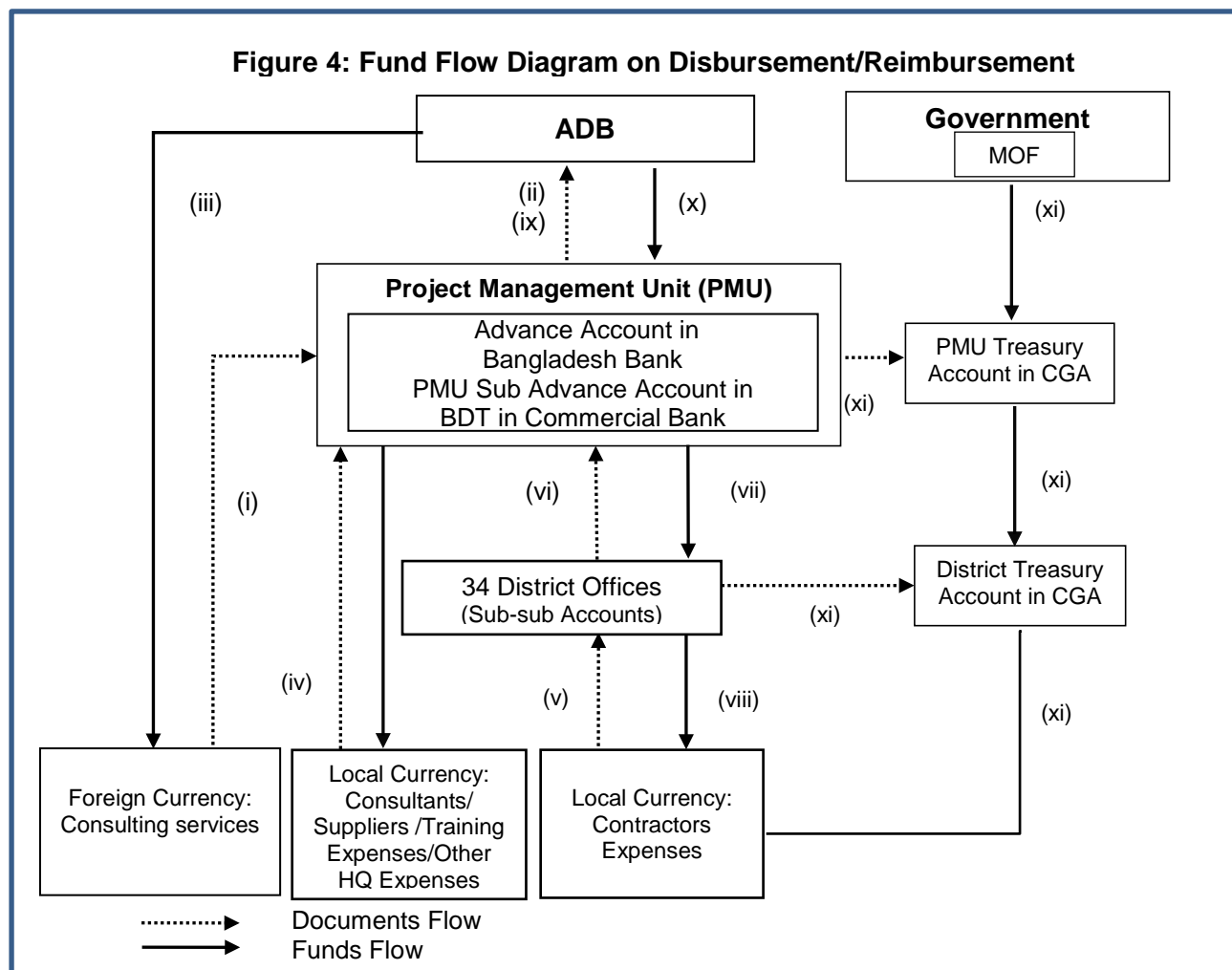
Source: Asian Development Bank.





## I. Fund Flow Diagram

9. The project specific fund flow mechanism is illustrated below to show how the funds will flow from ADB and Government of Bangladesh to implement project activities.



ADB = Asian Development Bank, BDT = taka, CGA = Controller General of Accounts, LGD = Local Government Division, MOF = Ministry of Finance, PMU = Project Management Unit.

### Notes on funds flow:

#### For Direct Payment to Consultant for Foreign Currency

- (i) Consultants submit claims to PMU.
- (ii) PMU sends request to ADB for direct payments together with consultants' invoices.
- (iii) ADB makes direct payments to consultants.

#### For Other Payments and Expenditures under Local Currency & Counterpart Fund payments

- (iv) Consultants submit claims to PMU, and PMU makes the payment.
- (v) Contractor submits claims to District Office for payments.
- (vi) District Office sends Memorandum of Payment (MOP) and Requisition Form to PMU for contractors' local currency of ADB share.
- (vii) Based on MOP, PMU allots funds to District Office Sub Advance Account for ADB share for making the payment.
- (viii) District Office makes payments to contractors in local currency.
- (ix) PMU consolidates Statement of Expenditures, and requests ADB for liquidation/replenishment.
- (x) ADB makes replenishment to Advance Account.
- (xi) Release of counterpart fund is done on a quarterly basis based on PMU's request to MOF through LGD Planning Section, and payments are done as and when required by District Office.

## V. FINANCIAL MANAGEMENT

### A. Financial Management Assessment

10. The financial management assessment (FMA) was conducted in February 2018 in accordance with ADB's Guidelines for the Financial Management and Analysis of Projects and the Financial Due Diligence: A Methodology Note. The FMA considered the capacity of LGED, including funds-flow arrangements, staffing, accounting and financial reporting systems, financial information systems, and internal and external auditing arrangements. Based on the assessment, the key financial management risks identified are shown in the Table 15.

**Table 15: Financial Management and Internal Control Risk Assessment**

<b>Risk</b>	<b>Risk Assessment</b>	<b>Risk Description</b>	<b>Mitigation Measures or Action Plans</b>
<b><i>Inherent Risk</i></b>			
1. Country-specific Risks	M	Absorption capacity of the government departments for capital expenditure	The country partnership strategy final review validation rated ADB's strategic positioning satisfactory, and the program relevant to the country's needs, as well as effective, and likely sustainable. Despite an overall moderate country level risk, the risk to the ADB-assisted project at the country level is considered low due to the project modality in place. Close monitoring of the activities will reduce the risk.
2. Entity-specific Risks	L	Experience of LGED as executing agency for implementing the project	LGED, the executing agency has experience in implementing ADB-financed projects. A separate Project Management Unit established within LGED will reduce the risk.
3. Project-specific Risks	M	While there are no project-specific risks, the project involves advance fund allocation to district offices, which needs to be properly managed	Training of PMU staff on ADB policies and procedures will reduce the risk.
<b><i>Overall Inherent Risk</i></b>	<b>M</b>		
<b><i>Control Risk</i></b>			
4. Implementing Entity	M	LGED is proposed to manage and implement the project.	Staffing must be in place before start of the project.

<b>Risk</b>	<b>Risk Assessment</b>	<b>Risk Description</b>	<b>Mitigation Measures or Action Plans</b>
5. Fund Flow	M	<p>Timely release of counterpart fund to the project.</p> <p>Control on over expenditure under ADB share</p>	<p>There were cases in the past of delayed release of counterpart fund to the project. Firm commitment from the MOF for the timely release of counterpart fund will reduce the risk of allocation and delayed release of funds. Direct Payment mechanism is to be used for major foreign currency payments for contractors and suppliers for ADB share.</p> <p>There were instances in the past in some projects wherein the District Office utilized the ADB share in excess of the eligible portion for making payments (bridge financing). In order to avoid such instances in this proposed project, it was decided that PMU will act as a check and balance point, and will release only the ADB share of funds to the District Office for making payments.</p>
6. Staffing	M	Dedicated finance and accounting staff for LGED	The PMU within LGED at the central level will support project implementation. The establishment of PMU, headed by a Project Director, with sufficient staff (including 4 accounting staff), is in process.
7. Accounting Policies and Procedures	M	Proper well documented policies and procedures and scope for improvement.	Existing government policies and procedures are followed. The compliance status of project loan covenants will be reported and assessed through the quarterly progress reports, and verified by ADB review missions.
8. Internal Audit	M	Internal Audit function carried out by LGED audit department	Periodic internal audit will reduce the documentation risk since there is no pre-audit of vouchers before making payments due to staff shortage. The project shall request the Internal Audit Unit of LGED to include the proposed project in the annual internal audit program.
9. 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. Annual project audit reports are produced within 6 months of the end of the financial year.



<b>Risk</b>	<b>Risk Assessment</b>	<b>Risk Description</b>	<b>Mitigation Measures or Action Plans</b>
10. Reporting and Monitoring	M	Financial Reports and disbursement reports need to form part of quarterly progress report.	LGED and PMU will be required to report in accordance with the ADB requirements with inherent adequate control mechanisms. Financial Reports and disbursement reports, together with status of action plan, need to form part of quarterly progress report.
11. Information Systems	M	Optimal use of technology in the finance and accounts wing for the preparation of accounts and reporting requirements.	There is a system in place in the government for recording transactions in Integrated Budgeting Accounting System (IBAS). Currently, the system is used for recording government expenditures. There is a manual contract management system in place in the existing project. Check and review system will be established.
<b>Overall Control Risk</b>	<b>M</b>		

Notes: H – High, S- Substantial, M – Moderate, L – Low.

ADB = Asian Development Bank, CAG = Controller and Auditor General, FAPAD = Foreign Aided Project Audit Department, LGED = Local Government Engineering Department, PMU = Project Management Unit.

Source: Asian Development Bank.

11. It is concluded that the overall pre-mitigation financial management risk of LGED is *moderate* and LGED has sufficient capacity to administer advance fund and Statement of Expenditures (SOE) procedures under the proposed fund follow scheme. LGED has agreed to implement an action plan as key measures to address the deficiencies. The financial management action plan is provided in Table 16.

**Table 16: Time-bound Action Plan**

<b>Key Risk Area</b>	<b>Risk Mitigating Activity</b>	<b>Timeline</b>	<b>Entity</b>
Bridge financing (use of ADB fund in excess of ADB's share for making payments) noticed in some of the existing projects handled by LGED	The PMU will release only the ADB share of funds to the District Office based on Funds Requisition Form along with Memorandum of Payment from the PMU advance account. PMU will instruct the District Offices to comply with the new process and use the required forms.	At the start of the project	LGED/PMU
Additional staff will be required to manage new fund flow arrangements	All approved staff must be in place including for the Finance and Accounts section in PMU (1 accountant, 2 account assistants), dedicated account assistant in 34 districts.	Before loan approval	LGED
Training on ADB policies and procedures	Impart training to all field staff (accounting, technical) who are involved in the ADB project.	After mobilization of financial management consultant under PISC	LGED/PMU

Key Risk Area	Risk Mitigating Activity	Timeline	Entity
Timely release of counterpart fund	PMU will prepare sufficient counterpart fund budget. Obtain firm commitment from the MOF for the timely release of counterpart fund.	Before start of the project and thereafter annually at the time of budget preparation	LGED/MOF
Internal audit	PMU will request the Internal Audit Unit of LGED to include the proposed project in the annual internal audit program based on the recently introduced Internal Audit Manual.  After the statutory audit, internal audit will be done over the next six (6) months so that mid-year checking is in place.	At the start of the project	LGED
Financial Statement in compliance with ADB policy	Audited Project Financial Statements 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/PMU/ FAPAD
Timely reporting and monitoring	Prepare quarterly reports for the ADB project with financial and disbursement information as well as variance analysis of physical and financial progress. The report should include the status of financial management action plan.	Every quarter	LGED/PMU
Preparation of accounts and reporting	Check and review system will be established for manually prepared information to prevent misstatement. A manual will be developed.	At the start of the project	LGED/PMU
Retention money	Abolish the present practice to park a portion of ADB fund in another account for future payment of retention money. An unconditional bank guarantee of equivalent amount by the contractor is to be considered. PMU will instruct District Offices to comply with the new process.	At the start of the project	LGED/PMU

ADB = Asian Development Bank, FAPAD = Foreign Aided Project Audit Department, LGED = Local Government Engineering Department, PISC = Project Implementation Support Consultant, PMU = Project Management Unit.  
Source: Asian Development Bank.

## B. Disbursement

### 1. Disbursement Arrangements for ADB Funds

12. The loan proceeds will be disbursed in accordance with ADB's Loan Disbursement Handbook (2017, as amended from time to time),<sup>5</sup> and detailed arrangements agreed upon between the government and ADB. Online training for project staff on disbursement policies and procedures is available.<sup>6</sup> Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

<sup>5</sup> ADB. 2017. *Loan Disbursement Handbook 2017*. Manila.

<sup>6</sup> Disbursement eLearning: [http://wpqr4.adb.org/disbursement\\_elearning](http://wpqr4.adb.org/disbursement_elearning)

13. ADB's disbursement procedures (direct payment, reimbursement, commitment and/or advance fund procedure) will be used for withdrawal of project funds. Direct payment procedure will be used for foreign currency payments to consultants. Reimbursement and advance fund (liquidation or replenishment) procedures will be mainly utilized for payments to contractors. Under the commitment procedure, ADB, at the borrower's request, provides an irrevocable undertaking to reimburse a commercial bank for payments made or to be made to a supplier against a letter of credit financed from the loan account. PMU will prepare and submit to ADB withdrawal applications. PMU is responsible for ensuring that supporting documents are complete, retained and made available for ADB's review at any time. One advance account in US dollar will be established at the Bangladesh Bank. A sub-account in local currency will be established in a commercial bank and maintained by the Project Management Unit. Sub-sub accounts will be established for each of the 34 District Offices.

14. **Advance fund procedure.** Separate advance account should be established and maintained by LGED for each funding source. The currency of the advance accounts is the United States dollar. The advance account is to be used exclusively for ADB's share of eligible expenditures. The LGED who administers the advance account is accountable and responsible for proper use of advances to the advance accounts including advances to any sub-accounts.

15. The total outstanding advance to the advance account should not exceed the estimate of ADB's share of expenditures to be paid through the advance account for the forthcoming 6 months. The LGED may request for initial and additional advances to the advance account based on an Estimate of Expenditure Sheet<sup>7</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 LGED in accordance with ADB's *Loan Disbursement Handbook 2017* (2017, as amended from time to time) when liquidating or replenishing the advance account.

16. **Statement of expenditure (SOE) procedure.**<sup>8</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 \$200,000 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 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 in excess of the SOE ceiling should be supported by full documentation when submitting the withdrawal application to ADB.

17. 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 LGED and subsequently claimed to ADB through reimbursement, or (ii) through the advance fund procedure, unless otherwise accepted by ADB. The borrower should ensure sufficient category and contract balances before requesting disbursements. Use of ADB's Client

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<sup>7</sup> Estimate of Expenditure Sheet is available in Appendix 8A of ADB's *Loan Disbursement Handbook 2017* (2017, as amended from time to time).

<sup>8</sup> SOE forms are available in Appendix 7B and 7D of ADB's *Loan Disbursement Handbook 2017* (2017, as amended from time to time).

Portal for Disbursements (CPD)<sup>9</sup> system is encouraged for submission of withdrawal applications to ADB.

## **2. Disbursement Arrangements for Counterpart Fund**

18. The government counterpart funds will be sufficiently allocated in the budget annually. RCIP, LGED will prepare the disbursement projections and transmit to the government, to earmark the required funds for budgeting purposes. RCIP, LGED will be responsible for preparing disbursement projections, and requesting budgetary allocations for counterpart funds to the Ministry of Finance. LGED will submit to ADB annual project contract awards and disbursement projections at least a month before the start of each calendar year.

### **C. Accounting**

19. LGED 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. The RCIP, LGED will prepare 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**

20. LGED 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 LGED. The audit report will include a separate audit opinion on the advance account.

21. 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 loan 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.

22. 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.

23. The government and LGED 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>10</sup> ADB reserves the right to require a change in the auditor (in a manner

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<sup>9</sup> The CPD facilitates online submission of Withdrawal Applications 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>.

<sup>10</sup> ADB's approach and procedures regarding delayed submission of audited project financial statements:

- (i) 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.

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.

24. 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>11</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>12</sup>

## VI. PROCUREMENT AND CONSULTING SERVICES

### A. Advance Contracting and Retroactive Financing

25. All advance contracting and retroactive financing will be undertaken in conformity with *Procurement Regulations for ADB Borrowers: Goods, Works, Nonconsulting and Consulting Services* (2017, as amended from time to time).<sup>13</sup> The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower, LGED has been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project.

26. **Advance contracting.** The works and services packages to be financed by the project through advance contracting are (i) 17 civil works for improving rural roads; and (ii) consulting services for project implementation support (CS-01). Eligible expenses for setting up the PMU and PIUs (office equipment, vehicles, and personnel) may also be part of advance contracting and retroactive financing. Table 17 indicates the schedule for advance contracting for civil works and CS-01, including status for each activity.

27. **Retroactive financing.** Retroactive financing is allowed for reimbursement of eligible expenses mentioned in para. 25, up to a maximum amount equivalent to 20% of the total ADB loan and grant, incurred before loan effectiveness, but not more than 12 months before the signing of the loan agreement.

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- (ii) 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 loan may be suspended if the audit documents are not received within the next 6 months.

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

<sup>11</sup> ADB. 2011. [Public Communications Policy](#).

<sup>12</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).

<sup>13</sup> ADB. 2017. [Procurement Regulations for ADB Borrowers: Goods, Works, Nonconsulting and Consulting Services](#).

**Table 17: Procurement Advance Actions**

Activity	Responsible	Due date	Comment
<b>CS-01 (Project Implementation Support Consultant)</b>			
Preparation and submission of S-0 to ADB	LGED	9 April 2018	Done
Advertisement of CSRN	LGED	17-May-18	Done
Short listing and RFP, Submission 1 to ADB	LGED	20-Jun-18	
RFP issued to short listed firms	LGED	21-Jul-18	
Receipt of RFP	LGED	04-Sep-18	
Technical proposal evaluation, Submission 2 to ADB	LGED	25-Sep-18	
Technical and price evaluation, Submission 3 to ADB	LGED	05-Nov-18	
Draft Contract, Submission 4	LGED	15-Dec-18	
Government approvals	CCGP, MOLGRDC	15-Jan-19	
Consultant mobilization	PISC	01-Feb-19	
<b>Improving rural roads (17 OCB packages)</b>			
Submission of master bidding documents to ADB	LGED	12-Apr-18	Done
Advertisement of invitation for bids	LGED, ADB	01-Jul-18	
Bid evaluation report submission to ADB	LGED	31-Aug-18	
Government approvals	HOPE	30-Sep-18	
Contract acceptance letter / award	LGED	31-Oct-18	

ADB = Asian Development Bank, CCGP = Cabinet Committee on Government Procurement, CSRN = consulting services recruitment notice, HOPE = head of procurement entity, MOLGRDC = Ministry of Local Government Rural Development & Cooperation, OCB = open competitive bidding, PISC = Project Implementation Support Consultant, RFP = request for proposal.

Source: Asian Development Bank.

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

28. All procurement of goods and works will be undertaken in accordance with *Procurement Regulations for ADB Borrowers: Goods, Works, Nonconsulting and Consulting Services* (2017, as amended from time to time).

29. Open competitive bidding (OCB) will be used for civil works contracts of \$15 million or less and goods contracts of \$2 million or less. Shopping will be used for procurement of works and goods estimated to cost less than \$100,000.

30. Electronic mode of procurement will be used for all civil work contracts for improvement of roads.<sup>14</sup> Bidders will be post-qualified by applying single-stage; one-envelope bidding procedure. Five civil work contracts will include post-construction and five years routine maintenance over five years.<sup>15</sup>

<sup>14</sup> Approval of e-GP for national competitive bidding (OCB) was granted by ADB in August 2016.

<sup>15</sup> Two sets of bidding documents will be used: separate BD introducing detailed performance standards for maintenance and associated procedures for payments linked to the performance. Five (5) of the 37 civil work contracts include a 5-year road maintenance following the completion of the construction, and this will need involvement of local labor from the nearby communities. The packaging was done considering that procurement involves improvement of rural roads scattered throughout 34 Districts in five Divisions of Bangladesh. Accordingly, using around 37 OCB contracts for a total value of around \$217 million is deemed more economical and efficient instead of combining bids into more sizeable packages that would enable the use of the OCB mode of procurement,

31. The following approval procedures will be adopted for OCB civil work contracts for road improvements:

- (i) ADB will review the standard bidding document (master bidding document) prior to the start of procurement and subsequently, bidding documents for one civil work contract in each Division prior to the start of procurement.
- (ii) ADB will review bid evaluation reports for the first civil work contract from each Division.<sup>16</sup>
- (iii) If ADB finds the bid evaluation for the first five (5) contract packages satisfactory, LGED will proceed with procurement procedures and contract award for subsequent contract packages without prior ADB review and approval. In these cases, the following post facto approval procedures will apply: (a) LGED will retain a record of all procurement documentation, including copies of the signed contracts and the bid evaluation reports, to be available for inspection;<sup>17</sup> (b) at the time of each contract award, LGED will provide ADB with a certified summary sheet reporting on the main aspects of the bid evaluation and contract award (reporting form is in Attachment G); and (c) LGED will promptly inform ADB on achieving the award of 30%, and 70% of contracts for conducting procurement audits. ADB may conduct random post facto reviews of procurement process and contract awards at any time
- (iv) The procurement processes and contract awards will be audited as part of the performance audit (i) upon the award of at least 30% of contracts being audited, and (ii) upon the award of at least 70% of contracts being audited.
- (v) If any contract award is found to be unacceptable, ADB may refuse to finance the contract.

32. The government will inform ADB of the changes made to the national procurement regulations, if any, and carry out a joint review of the OCB Annex if necessary to ensure consistency with ADB guidelines. The procurement plan should be updated whenever change in the procurement arrangements and/or the OCB Annex is required and agreed.

33. An 18-month procurement plan, indicating threshold and review procedures, goods, works, and consulting services contract packages and open competitive bidding guidelines, is in Attachment A (Procurement Plan). All consultants will be recruited according to *Procurement Regulations for ADB Borrowers: Goods, Works, Nonconsulting and Consulting Services* (2017, as amended from time to time).<sup>18</sup> The terms of reference for all consulting services are detailed in attachments B, C, and D.

34. All procurement activities will be the responsibility of the project director of the project management unit (PMU), who will be supported by his staff and consultants. ADB will closely monitor all major procurement activities. Civil works contracts will comprise 37 OCB packages.

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and reduce the number of contracts to be managed. Adequate number of PIUs (5), District Offices (34), and LGED offices at *Upazila*-level (190) suited to the contract packaging are in place.

<sup>16</sup> Five Divisions are involved in the project. Each Division may start bid evaluation for all contract packages, but will not proceed with the contract award until ADB clearance is obtained for the bid evaluation report for the first civil works package.

<sup>17</sup> Original documentation on the procurement process may be kept at PIUs, however, the copies of the documentation shall be kept at PMU, LGED Headquarters to enable easy access for review and auditing.

<sup>18</sup> Checklists for actions required to contract consultants by method are available in the e-Handbook on Project Implementation at: <https://www.adb.org/documents/handbook-project-implementation>.

All contracts will be procured in accordance with *Procurement Regulations for ADB Borrowers: Goods, Works, Nonconsulting and Consulting Services* (2017, as amended from time to time)."

35. International consultants, in association with domestic consultants, will be engaged as project implementation support consultant (PISC) to support the PMU in (i) contract administration and construction supervision for the road construction component, and (ii) implementing gender action plan (GAP) including road safety, HIV/AIDS and human trafficking. The PISC will also support LGED in road asset management/maintenance and project management. About 27 person-months of international consultants and 4,673 person-months of national consultants will be required for this. These consultants will be recruited under a firm, using ADB's quality- and cost-based selection (QCBS) under full technical proposal (FTP). The capacity development consultant for GIS-based development of rural road masterplan will also be engaged through a firm through QCBS under FTP. About 282 person-months of national consultants will be required. For the project-associated transaction technical assistance (TRTA), a firm of international consultants in association with domestic consultants will be recruited using QCBS under simplified technical proposal for institutional strengthening of the Bangladesh Rural Road Sector for Sustainable Development. The TA will support LGED in improving sector management performance by implementing institutional development initiatives in the field. About 17 person-months of international consultants and 17 person-months of national consultants will be required under the TRTA consultant package.

### **C. Procurement Plan**

36. Project procurement classification is B, and the project procurement risk is assessed as low. The procurement plan is in Attachment A and describes all procurement of good and works to be undertaken for the project based on the Procurement Capacity Assessment undertaken for LGED.

### **D. Consultants' Terms of Reference**

37. An estimated 4,932 person-months will be required (44 international, 4,888 national), Consulting firms will be engaged using the quality- and cost-based (QCBS) method with a standard quality ratio of 90:10. All consultants will be recruited according to *Procurement Regulations for ADB Borrowers: Goods, Works, Nonconsulting and Consulting Services* (2017, as amended from time to time). The consultants' terms of reference are provided in the following:

- Project Implementation Support Consultant – **Attachment B**
- Capacity Development Consultant (GIS-based development of rural road masterplan) – **Attachment C**
- Transaction Technical Assistance – **Attachment D**

## **VII. SAFEGUARDS**

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

### **A. Environment**

39. The project is classified as category B in accordance with ADB SPS. A single initial environmental examination (IEE) report was prepared for all 216 project roads. The



Environmental Management Plan (EMP) outlines measures to mitigate all anticipated environment impacts during project construction and operation and will be included in the contract agreement with the respective civil works contractor. Specific mitigation measures with details on location, time and responsible agency for implementation is given in the EMP.

40. **Implementation Arrangements for Environment Safeguards.** The responsibilities of various agencies and parties for implementing environment safeguards are provided below.

41. LGED's PMU is responsible for the overall compliance with ADB's SPS 2009 and all applicable laws and rules under the Ministry of Environment and Forest (MOEF). The PMU will be supported by a senior safeguard specialist (SSS) responsible for ensuring the project complies with the social and environmental safeguard requirements of the ADB. The SSS will coordinate with the five (5) division environment specialists (DES), and 34 district engineers (executive engineers) to ensure project implementation complies with the PAM and EMP. The PMU-ES will:

- ensure compliance with all environment-related statutory requirements of LGED and Contractor;
- review and finalize road specific EMPs prepared by the Division Environment Specialist (DES) and district engineers;
- be overall responsible for the timely endorsement and signing of key documents and forwarding the same to the respective agency for processing of clearances and permits including but not limited to: forestry clearance; tree cutting permit; permission for construction material quarrying; consent to operate hot mix plants, crushers, and batching plants; consent for disposal of sewage from labour camp; and pollution under control for motor vehicles, etc.;
- ensure preparation, submission, and review of annual environmental monitoring reports for disclosure on ADB and LGED websites;
- ensure all contractors obtain permits, licenses, etc. for activities such as operation of asphalt plants, quarries, borrow areas etc. before the implementation of the respective construction activity;
- conduct training and workshops on environmental management to include site induction of all staff and workers involved in the construction. These include all district engineers, and staff and laborers of all contractors;
- guided by the initial environmental examination approved by the ADB and LGED, design and implement an effective environmental monitoring program; this includes but is not limited to inspections by the PMU and LGED, self-monitoring by the contractors, inspection protocols for the DES, and Grievance and Redress Mechanism including intake form and documentation;
- take proactive and timely measures to address any environment safeguards related challenges at the national or division/district levels such as delays in processing of clearances during pre-construction stage and significant grievances (during construction stage);
- carry out periodic field verification and review environmental compliances by the Contractor during project implementation, in coordination with the DES and the Contractor's environment focal person (EFP);
- review and approve, for submission to LGED and ADB, periodic environmental monitoring reports submitted by DES.; lead in complying with disclosure of periodic environmental monitoring reports; and
- ensure grievance redress mechanism, as envisaged in the EMP, is in place and finalize preparation disclosure of monitoring reports.

42. **Division Environmental Specialists.** Each of the LGED Division will have a consultant Environmental Specialist to support the Additional Chief Engineer and District Engineers in supervising the implementation of the EMP and Environmental Monitoring Plan by the Contractor through the following:

- in coordination with the contractor's EFP and with guidance from the SSS, prepare road-specific EMPs and environmental monitoring plans (EMoPs), guided by the general EMP and based on the more detailed survey;
- guide and review all sub-plans identified in the IEE and EMP to be prepared by the Contractor to include camp layout, waste/debris management plan, borrow area management plan, traffic management plan;
- conduct environmental site induction training to all contractors and PIUs to ensure understanding of the EMP, domestic environmental laws and regulations requirements particularly on the required clearances and permits, training on occupational and community health and safety, timely mobilization of the Contractor's EFP, and review subplans required in the EMP and advise the District Engineer on their adequacy, who in turn, will instruct the Contractor to make necessary revisions;<sup>19</sup>
- ensure Contractor secures necessary permits and clearances;
- ensure the environmental monitoring report template is adapted by the Contractor in the preparation of submission of self-monitoring reports;
- review monthly environmental monitoring reports prepared by the Contractor-EFP;
- conduct at least three (3) environmental inspections during the construction phase: (i) First report at pre-construction stage, (ii) Second report after three months of start of construction or on completion of 25% construction, and (iii) Third report after seven (7) months of start of construction or on completion of 75% of construction;
- monthly site and follow-up inspection to ensure the veracity of the submitted monitoring reports and enforce the EMP and EMoP;
- prepare summary monthly, quarterly, and semi-annual monitoring reports from the periodic compliance inspection monitoring and review of the environmental self-monitoring reports, prepared by the Contractor's EFP, for the review and guidance of the PMU and PIUs;
- conduct compliance conference with the Contractor to discuss non-compliance and agree on corrective measures with guidance from the CSC-ES;
- advise the Contractor through the District Engineer and SSS on how to comply with requirements to address non-compliances;
- report apparent unanticipated impacts, recommend mitigation measures to be implemented by the PCU and update the IEE report; and
- recommend sanctions to the SSS in case of recalcitrant contractors.

43. **Contractor.** The Contractor is the principal agent to implement the EMP and EMoP during the pre- and construction stages. Specifically, the Contractor will:

- appoint the Contractor's EFP and attend the site induction workshop to be organized by the DES and SSS;

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<sup>19</sup> Site induction training includes but not limited to: i) discussion and review of EMP and EMoP detailing how specific environmental risks associated with their Scope of Work will be managed legal compliance, inspection and audits, and progress tracking and reporting; ii) environmental training and awareness needs shall be determined and documented via a training needs analysis prior to commencement; iii) Health and Safety Awareness Course, which details general environmental awareness and specific performance requirements expected on site; and iv) GRM.

- obtain necessary environmental license(s), permits etc. from relevant agencies as specified in the IEE and this project administration manual for associated facilities for project road works, quarries, wet mix plant etc. prior to commencement of civil works contracts;
- as part of detailed survey, collect the baseline data on environmental quality before the start of physical works<sup>20</sup> and continue collection of environmental quality data as given in the EMoP during construction and operation;
- revised the EMP and EMoP, as advised by the DES, based on detailed road survey
- implement all mitigation measures in the EMP and activities in the EMoP;
- ensure that all workers, site agents, including site supervisors and management, participate in training sessions delivered by DES and SSS;
- during the 2-year construction period, submit monthly environmental self-monitoring reports to the District Engineer and DES with guidance from the DES;
- during the 5-year maintenance period, submit quarterly environmental monitoring reports to the PMU;
- ensure compliance with environmental statutory requirements and contractual obligations;
- participate in resolving issues as a member of the grievance redress committee (GRC);
- respond promptly to grievances raised by the local community or any stakeholder and implement environmental corrective actions or additional environmental mitigation measures as necessary; and
- based on the results of EMP monitoring, cooperate with the DES to implement environmental corrective actions and corrective action plans, as necessary.

44. ADB is responsible for the following:

- review rapid environmental assessment checklist and endorse or modify classification proposed by the EA;
- review IEE report and disclose the final reports on the ADB website as required;
- issue no-objection on subproject's approval based on the IEE report;
- monitor implementation of the EMP through due diligence missions;
- assist LGED, if required, in carrying out its responsibilities and in building capacity for safeguard compliance;
- monitor overall compliance of the subprojects to this PAM; and
- if necessary, provide further guidance to LGED on the format, content, and scope of the IEE report and annual monitoring reports for submission to ADB.

## **B. Grievance Redress Mechanism**

45. LGED will establish a grievance redress mechanism to voice and resolve social and environmental concerns linked to the project and ensure greater accountability of the project authorities towards all affected persons (Table 18). This mechanism is not intended to bypass the government's own legal process, but to provide a time-bound and transparent mechanism that is readily accessible to all segments of the affected people and road residents. All costs involved in resolving the complaints (meetings, consultations, communication and reporting/information dissemination) will be borne by the project.

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<sup>20</sup> Pre-construction monitoring report.

**Table 18: Grievance Redress Mechanism**

<b>Field-Level Committee</b>	<b>District-Level Committee</b>	<b>Project-Level Committee</b>
<ul style="list-style-type: none"> <li>• Head of Upazila Parishad / local leader nominated by Union Parishad (Chairperson),</li> <li>• Representative of the Union Parishad</li> <li>• Concerned LGED <i>Upazila</i> Engineer</li> <li>• PISC field engineer</li> <li>• Community Organizers</li> <li>• Contractor's Environmental/Social Focal Person</li> </ul>	<ul style="list-style-type: none"> <li>• Executive Engineer PIU</li> <li>• Concerned LGED <i>Upazila</i> Engineer</li> <li>• Representative of concerned <i>Upazila</i> Parishad</li> <li>• PISC Social Expert and Environment Expert</li> <li>• Contractor's Environmental/Social Focal Person</li> <li>• Representatives designated by affected community</li> </ul>	<ul style="list-style-type: none"> <li>• Project Director PMU</li> <li>• Concerned LGED Executive Engineer</li> <li>• Finance Representative</li> <li>• PISC Environment Expert</li> <li>• PISC Social Development Expert</li> </ul>

LGED = Local Government Engineering Department, PISC = Project Implementation Support Consultant, PIU = project implementation unit, PMU.

Source: Asian Development Bank.

### **C. Involuntary Resettlement and Indigenous Peoples**

46. The project is categorized as C for involuntary resettlement. There is very limited requirement of additional land for the project as the works will be carried out mostly within the existing road corridor/right-of-way. Narrow strips of additional land will be required to address road safety, bridge approaches and short-term construction-related requirements. In such cases, eminent domain will not be used but instead a voluntary land donation system will be used in accordance with ADB's requirements. The government will ensure (i) full consultation with landowners and any non-titled affected people on alignment selection; (ii) that voluntary donation does not severely affect the living standards of the affected persons, (iii) that any voluntary donation is confirmed through verbal and written record; and (iv) that an adequate grievance mechanism is in place.

47. The project is categorized as C for indigenous peoples. The social assessment did not identify presence of Tribes, Minor Races, Ethnic Sects and Communities in all the project roads.

48. In accordance with the community consultation and social impact mitigation process outlined in the Community Participation Framework (CPF), transect walks have been conducted in all the 317 subprojects under RCIP. Community Participation Plans (CPPs) have been prepared following the transect walks for all the subproject roads. Assessment of institutional capacities and arrangements confirmed that the involved agencies are capable to effectively implement the requirements of the CPFs, community consultations and monitoring. They will be assisted by the PISC social safeguard experts in continuing with community consultations during implementation, redressal of grievances and social safeguard monitoring.

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

49. **Poverty reduction and social impact.** There are 51.5 million people (or 49% of the country's population) living in 34 districts crossed by the project roads. Household surveys carried out in the project area reveal that the major sources of income are agricultural produce, trade and

business, services, and remittances. Estimated percent of the poor population in the project area ranges between 27% in Cumilla district to 55% in Coxsbazar district. Poverty and social assessment have been conducted and about 7,835 people who live in the project area have been consulted. Majority of the people supported the project and indicate that the project will increase economic and employment opportunities. The project will generate an estimated 3.13 million person-days of employment over the construction and maintenance periods.

50. **Gender.** The poverty and social analysis included a gender assessment and 2,418 women have been consulted at the project area. Overall, women were supportive of the project because of the potential access to economic opportunities and services. The project is categorized effective gender mainstreaming, and a GAP was prepared, which includes the following activities: (i) target at least 40% women participants in project orientation seminars and planning of project roads; (ii) provide on-the-job training to all women workers on basic construction, improvement, reconstruction works and maintenance skills; (iii) target at least 20% women workers to be employed for road improvement works; (iv) conduct awareness on gender-based violence (including sexual exploitation and human trafficking) and STI prevention to at least 40% of students, teachers, parents, and school management committees along the project roads; (v) implement core labor standards with gender-inclusive provisions and women-friendly work environments; (vi) conduct road safety awareness programs to at least 40% of students, teachers, parents and school management committees along the project roads; and (vii) conduct technical training of LGED staff including 30% women staff. Gender experts will be hired to ensure effective implementation of the GAP (Table 19), and preparing the gender monitoring report (Attachment E).

**Table 19: Gender Action Plan**

<b>Proposed Gender Mainstreaming Activities</b>	<b>Targets and Indicators</b>	<b>Responsible Institutions</b>	<b>Timeframe</b>
<b>Output 1: Rural road conditions between the selected rural communities, productive agricultural areas, and socioeconomic centers improved</b>			
1. Ensure women's employment in the road improvement work opportunities that will be created by the RCIP, LGED.	1. On an average 20% women workers employed for roads improvement works of RCIP.	<ul style="list-style-type: none"> <li>• PMU-RCIP</li> <li>• PIU / LGED DOs / UZET</li> <li>• GS &amp; SDSS, PMU, LGED</li> </ul>	During project implementation
2. Orient contractors and LGED field staff focus on core labor standards.	2. All contractors and relevant LGED project staff of target district/LGED region are oriented on national core labor standards.	<ul style="list-style-type: none"> <li>• PMU-RCIP</li> <li>• PIU / LGED DOs / UZET</li> <li>• GS &amp; SDSS, PMU, LGED</li> </ul>	During project implementation
3. Provide on-the job training to women workers on basic construction, improvement, reconstruction works and maintenance skills, etc.	3. All women workers received training/orientation on-site on basic construction, improvement, reconstruction works and maintenance skills, etc.	<ul style="list-style-type: none"> <li>• PMU-RCIP</li> <li>• PIU / LGED DOs / UZET</li> </ul>	During project implementation
4. Collect sex disaggregated data on the road users, respondents of socioeconomic/ household survey, and participants of community consultations and other project activities	4. Sex-disaggregated data reflected in all QPRs and GAP implementation updates.	<ul style="list-style-type: none"> <li>• PMU-RCIP</li> <li>• PIU / LGED DOs / UZET</li> <li>• GS &amp; SDSS, PMU, LGED</li> </ul>	During project implementation
5. Conduct baseline, midline and endline surveys	5. Baseline, midline and endline surveys on the different modes of transport and travel patterns of women in rural areas conducted	<ul style="list-style-type: none"> <li>• PMU-RCIP</li> <li>• PIU / LGED DOs / UZET</li> <li>• GS &amp; SDSS, PMU, LGED</li> </ul>	During project implementation
6. Equal wages paid by contractors recorded in monthly logbook disaggregated by sex.	6. All bidding documents included gender related national core labor standard clause. 7. LGED progress report included sex-disaggregated data	<ul style="list-style-type: none"> <li>• PMU-RCIP</li> <li>• PIU / LGED DOs / UZET</li> </ul>	During project implementation
<b>Output 2: Capacity of rural infrastructure agency and road users in project areas enhanced</b>			
7. Ensure women's participation in public consultations in 123 upazilas	8. At least 40% women participants (216 consultations in 216 subprojects) attended the community consultations on the project	<ul style="list-style-type: none"> <li>• PMU-RCIP</li> <li>• PIU / LGED DOs / UZET</li> <li>• GS &amp; SDSS, PMU, LGED</li> </ul>	During project implementation
8. Review the Rural Road Safety Policy to propose social safeguards measures and to address gender issues.	9. Proposed social safeguards measures and actions on gender issues included in the review of the Rural Road Safety Policy	<ul style="list-style-type: none"> <li>• PMU-RCIP</li> <li>• PIU / LGED DOs / UZET</li> <li>• GS &amp; SDSS, PMU, LGED</li> </ul>	Year 1
9. Train all LGED project staff including women staff in road safety awareness, road assets management, contract management, financial management and climate resilient design and construction.	10. At least two trainings with one refresher on road safety awareness and road assets management using modules developed in previous projects <sup>a</sup> conducted with LGED project staff with 30% women participants. 11. At least two trainings with one refresher on contract management and financial management using existing modules used in other LGED projects conducted with LGED staff project with 30% women participants 12. At least two trainings with one refresher on climate resilient design and construction using modules developed in other LGED	<ul style="list-style-type: none"> <li>• PMU-RCIP</li> <li>• PIU / LGED DOs / UZET</li> <li>• GS &amp; SDSS, PMU, LGED</li> </ul>	During project implementation

Proposed Gender Mainstreaming Activities	Targets and Indicators	Responsible Institutions	Timeframe
	projects <sup>b</sup> conducted with LGED project staff with 30% women participants		
10. Conduct orientation and awareness raising sessions on road safety and on gender-based violence (including sexual exploitation and human trafficking) and STI prevention.	13. At least 40% of students, teachers, SMCs and parents of schools oriented and received awareness raising sessions on road safety. 14. At least 40% of students, teachers, SMCs and parents of schools participated in awareness raising sessions on gender-based violence (including sexual exploitation and human trafficking) and STI prevention.	<ul style="list-style-type: none"> <li>• PMU-RCIP</li> <li>• PIU / LGED DOs / UZET</li> <li>• GS &amp; SDSS, PMU, LGED</li> </ul>	During project implementation
11. Recruit/promote appointment of women staff at various level of RCIP, LGED.	15. 15% of women staff <sup>c</sup> recruited at various level of PISC and PMU of RCIP, LGED.	<ul style="list-style-type: none"> <li>• PMU-RCIP</li> <li>• PIU / LGED DOs / UZET</li> </ul>	During project implementation
12. Ensure effective implementation of social safeguards and GAP of RCIP.	16. Five (5 nos.) regional/district level meetings conducted to assess satisfactory incorporation of gender elements from first batch of sub-projects of RCIP.	<ul style="list-style-type: none"> <li>• PMU-RCIP</li> <li>• PIU / LGED DOs / UZET</li> <li>• GS &amp; SDSS, PMU, LGED</li> </ul>	During project implementation
13. Involve LGED upazila community organizers in the implementation of GAP and safeguards issue including CPF & CPP.	17. All available LGED upazila community organizers involved in the implementation of GAP and social safeguards plan including CPF & CPP.	<ul style="list-style-type: none"> <li>• PMU-RCIP</li> <li>• PIU / LGED DOs / UZET</li> </ul>	During project implementation
14. Organize TOT on safeguards plans (including CPF and CPP) for LGED project staff	18. LGED project staff including 30% women staff at PMU/PIU level received TOT on safeguards plans, and its implementation process in RCIP, LGED.	<ul style="list-style-type: none"> <li>• PMU-RCIP</li> <li>• PIU / LGED DOs / UZET</li> <li>• GS &amp; SDSS, PMU, LGED</li> </ul>	During project implementation
15. Organize TOT on gender and development for LGED project staff with women representation	19. Field level community organizers in 123 upazilas trained on gender equality issues and mentored by national gender experts.	<ul style="list-style-type: none"> <li>• PMU-RCIP</li> <li>• PIU / LGED DOs / UZET</li> <li>• GS &amp; SDSS, PMU, LGED</li> </ul>	During project implementation

CPP = Community Participation Plan; DOs = LGED District Offices; GAP = Gender Action Plan; GS = Gender Specialist; LGED = Local Government Engineering Department; PIU = Project Implementation Unit; PMU = Project Management Unit; QPR = Quarterly Progress Report; RCIP = Rural Connectivity Improvement Project; SDSS = Social Development and Safeguards Specialist, SMCs = School Management Committees; TOR = Terms of Reference; and UZET = Upazila Engineering Team.

<sup>a</sup> Use modules developed in previous ADB financed project-Sustainable Rural Infrastructure Improvement Project.

<sup>b</sup> Use modules developed in ADB financed project-Coastal Climate Resilient Infrastructure Project.

<sup>c</sup> Quarterly Progress Report of Gender Action Plan, October – December 2017 (Planned – 20% and Achieved – 14%), Sustainable Rural Infrastructure Improvement Project (SRIIP), LGED.

Source: Asian Development Bank.

51. **Labor.** Project construction is expected to generate employment opportunities for local communities during the construction and maintenance phases. Provisions are in the bidding and contractual documents for the contractors to ensure that all the civil works comply with core labor standards (e.g., no child labor; no bonded labor; no work discrimination due to gender, race, and ethnicity; and freedom of association and collective bargaining). This will be monitored by the PISC and reported in the project quarterly progress reports.

52. **HIV and human trafficking.** The proportion of project requiring large and non-local construction workforces is low. Therefore, the risk of spreading communicable diseases including STDs or HIV is low. The social assessment undertaken identified no significant social risks such as HIV/AIDS or human trafficking. LGED will ensure that civil works contractors disseminate information at worksites on the risks of sexually transmitted diseases. All contracts will include clauses on these undertakings, and the government will strictly monitor compliance during implementation. The civil works contractors will carry out STI (including HIV/AIDS) and human trafficking awareness sessions for their laborers at work sites, which will be monitored by the gender experts.

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

### A. Project Design and Monitoring Framework

Impact the Project is Aligned with Connectivity between rural communities, productive agricultural areas, and socio-economic centers in Bangladesh improved (Seventh Five Year Plan, FY2016–FY2020) <sup>a</sup>			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
<b>Outcome</b> Transport efficiency and related employment generated in target areas increased	<b>By 2024:</b> a. Average travel time along project roads reduced by 50% (2018 baseline: 5 minutes/km) b. Average daily vehicle-km increased to 67,140 (2018 baseline: 49,160 vehicle-km) c. 3.13 million person-days employment generated (at least 20% for women) by road construction, maintenance, and bioengineering activities (2018 baseline: N.A.)	a-b. Post-implementation measurement and traffic survey by LGED  c. Quarterly monitoring reports and project completion report by LGED	Extreme weather conditions beyond what is anticipated causing severe damage to road network
<b>Outputs</b> 1. Rural road conditions between selected rural communities, productive agricultural areas, and socio-economic centers improved.	<b>By 2023:</b> 1a. At least 1,700 km of rural roads improved to all-weather standards with climate resilience and safety features, of which 242 km of rural roads maintained for a period of 5 years <sup>b</sup> (2018 baseline: 0)	Quarterly monitoring reports and project completion report by LGED	Delayed release of counterpart funds could hamper the completion of works.
2. Capacity of rural infrastructure agency and road users in	<b>By 2023:</b> 2a. 100% of LGED project staff, including all women staff, increased knowledge and skills on road safety	2a, c-f. Post-implementation survey by LGED	



Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
project areas enhanced.	<p>awareness, road asset management, contract management, financial management, climate-resilient design and construction (2018 baseline: 0)</p> <p>2b. Manuals for maintenance, climate-resilient design and construction for rural road developed and endorsed by LGED (2018 baseline: N.A.)</p> <p>2c. At least 40% of students, teachers, parents and SMCs from schools along project roads acquired knowledge on road safety (2018 baseline: N.A.)</p> <p>2d. At least 40% of students, teachers, parents and SMCs from schools along project roads acquired knowledge on gender-based violence (including sexual exploitation and human trafficking) and STI prevention (2018 baseline: N.A.)</p> <p>2e. At least 40% women participated in project orientation, planning of project roads (2018 baseline: N.A.)</p> <p>2f. All women workers' skills on road construction and maintenance enhanced (2018 baseline: N.A.)</p>	2b. Government endorsement memo	
3. Rural road master planning enhanced	<p><b>By 2023:</b></p> <p>3a. Geographic information system developed and integrated with the nationwide road database (2018 baseline: N.A.)</p>	Post-implementation actions by LGED	
<p><b>Key Activities with Milestones</b></p> <p><b>Output 1: Rural road condition between selected rural communities, productive agricultural areas, and socio-economic centers improved.</b></p> <p>1.1 Award contracts for improving about 1,700 km of roads to all-weather standards by Q3 2019 and complete construction by Q3 2021, and maintain until Q3 2026.</p> <p><b>Output 2: Capacity of rural infrastructure agency and road users in project areas enhanced</b></p> <p>2.1 Mobilize project implementation support consultants and other capacity development consultants by Q2 2019.</p> <p>2.2 Develop capacity development training programs for LGED and project communities by Q4 2019.</p> <p>2.3 Conduct the training programs by Q4 2020.</p> <p>2.4 Develop manuals for performance-based maintenance, and climate-resilient design and construction by Q4 2020.</p>			

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
<b>Output 3: Rural road master planning enhanced</b>			
3.1 Mobilize information technology consultants for road master planning by Q4 2019.			
3.2 Develop capacity development training programs for LGED on system-based road master planning by Q4 2020.			
<b>Inputs</b>			
ADB: \$100.00 million (regular OCR loan); \$100.00 million (concessional OCR loan)			
Government: \$85.31 million			
Technical Assistance (TASF 6 grant): \$1.00 million			
<b>Assumptions for Partner Financing</b>			
Not Applicable.			

ADB = Asian Development Bank, km = kilometer, LGED = Local Government Engineering Department, SMCs = School Management Committees, TASF = technical assistance special fund.

<sup>a</sup> Government of the People's Republic of Bangladesh, Planning Commission. 2016. *The Seventh Five Year Plan (FY2016–2020)*. Dhaka. The impact statement was drawn from the government's plan and recast to conform to ADB's DMF guidelines.

<sup>b</sup> The maintenance period will be for 5 years ending by 2026.

Source: Asian Development Bank.

## B. Monitoring

53. **Project performance monitoring.** The achievement of the project performance targets will be assessed following the design and monitoring framework. LGED, assisted by the PISC, will establish a project performance management system. Indicators to be monitored include (i) agricultural produce; (ii) traffic volume; (iii) bus and freight transport fares; (iv) travel time or riding speed; (v) vehicle operating costs; (vi) surface roughness; and (vii) road accidents. In addition, socioeconomic secondary data will be obtained at the divisional level, including (a) number of businesses; (b) household income; (c) vehicle ownership; (d) unemployment rate; (e) land value; (f) average travel time to schools; and (g) average travel time to hospitals. These indicators will be monitored before and after construction, both on the project roads and on some control roads. In addition, every year during the project period, LGED will also monitor the (i) road maintenance budget; (ii) staff–km ratio of rural roads; and (iii) road maintenance cost per kilometer. Achievement of the capacity development activities will also be monitored. For civil works, progress will be monitored and reported monthly by the PISC. The project beneficiaries' satisfaction will be surveyed during and after project implementation. Disaggregated baseline data for output and outcome indicators gathered during project processing will be updated and reported through the quarterly progress reports from LGED, and after each ADB review mission. These quarterly reports will provide information necessary to update ADB's project performance reporting system.<sup>21</sup>

54. **Compliance monitoring.** Compliance with covenants will be monitored through ADB's project administration missions—including project inception mission to discuss and confirm the timetable for compliance with the loan covenants; project review missions to assess the government's compliance with particular loan covenants and, where there is any noncompliance or delay, discuss proposed remedial measures with the government; and mid-term review mission, if necessary, to assess whether the covenants are still relevant or need to be changed, or waived due to changing circumstances.

<sup>21</sup> ADB's project performance reporting system is available at:  
<http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool>

55. **Environmental safeguard monitoring and reporting.** LGED is responsible for undertaking environmental due diligence and monitoring the implementation of environmental mitigation measures for all project roads. The due diligence report as well as monitoring implementation of the EMP needs to be documented systematically. ADB must be given access to undertake environmental due diligence for all project roads, if needed.

56. The monitoring reports will document progress made in EMP implementation of each road. LGED will be supported by the SSS and five DES in the compliance inspection of all roads at least 3 times; pre-, during-, and post-construction. Each contractor's appointed EFP will submit monthly self-monitoring reports following a prescribed format to the jurisdictional District Engineer and DES. These self-monitoring reports are subject to the DES environmental audit for veracity and from which decisions will be made for further inspections. The DES periodic inspection reports and EFP's monthly self-monitoring reports will be summarized into quarter, semi-annual, and annual reports by the DES to be reviewed by the SSS. Annual reports will be publicly disclosed in the ADB and LGED websites.

57. Monitoring during construction and the 5-year maintenance period is primarily the responsibility of the contractor through self-reporting which relates to the status of EMP and EMoP implementations, including complaints received. The DES and SSS are responsible for monitoring the compliance with construction contracts, effectiveness of mitigation measures, complaints, and overall environmental quality from the results of the third-party ambient environmental monitoring hired by the contractor, as the case maybe. Ambient monitoring will follow the approach to selecting quantitative standards, as recommended in the ADB's Safeguard Policy Statement 2009. During the 5-year maintenance period, the EFP will submit quarterly self-monitoring reports to PMU. The PMU will be responsible for the review, preparation, and disclosure of annual environmental monitoring reports.

58. **Involuntary resettlement monitoring.** LGED, with the support of PIUs, the PISC social safeguard and gender experts, will set up an internal monitoring system with a set of process, outcome and impact baseline indicators. The social safeguard and gender experts will carry out assessment of the social safeguard monitoring through field work, data verification and consultations, and provide semi-annual social safeguard monitoring reports to LGED and ADB. ADB will also assess the progress of social safeguard activities during review missions.

59. **Gender monitoring.** The GAP activities will be monitored by the PISC social safeguard cum gender experts and they will submit semi-annual monitoring reports to LGED and ADB. ADB will assess the progress of these activities during review missions.

## **C. Evaluation**

60. The project inception mission will be fielded soon after the legal agreements for the project are declared effective; thereafter, regular reviews will follow, at least annually. As necessary, special loan administration missions and a midterm review mission will be fielded, under which any changes in scope or implementation arrangements may be required to ensure achievement of project objectives. LGED will monitor project implementation in accordance with the schedule and time-bound milestones, and keep ADB informed of any significant deviations that may result

in the milestones not being met. Within 6 months of physical completion of the project, LGED will submit a project completion report to ADB.<sup>22</sup>

#### D. Reporting

61. LGED 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, (d) updated implementation plan for the next 12 months; and (iii) a project completion report within 6 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

62. Transect walks have been carried out by LGED *Upazila* offices on each project road involving the local community. Consultation meetings have been held with the local community involving *Union Parishad* chairman/members, and the stakeholders. During the community consultations, LGED officials assisted by the PDA consultants explained various features of the project including design, environmental considerations, land requirement and the process of voluntary donation, mitigation measures and grievance redress procedures. A project information brochure in Bengali has been distributed to the community during these consultation meetings. During implementation, the PISC safeguard team, along with PIU staff, will continue with the community consultations and the grievance redress process. The consultation activities and GRC meetings undertaken during the project implementation will be documented in the safeguard monitoring reports.

63. Concerned stakeholders including local communities, local forestry officials, relevant government agencies and nongovernment organizations have been consulted on environmental issues during project preparation. Technical recommendations on project design and biodiversity conservation provided by them have been included in the project.

64. Project information will be disclosed to the general public and concerned stakeholders as per the following table.

**Table 20: Documents for Disclosure**

Project Document	Means of Communication	Frequency	Audience
Project Data Sheet	ADB website	Initial project data sheet no later than 30 calendar days of approval of the concept paper; quarterly updates afterwards	General public
Design and Monitoring Framework	ADB website	Draft design and monitoring framework after fact-finding mission	General public

<sup>22</sup> Project completion report format available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

<b>Project Document</b>	<b>Means of Communication</b>	<b>Frequency</b>	<b>Audience</b>
Initial Environmental Examination Reports	ADB website LGED website	Prior to Board consideration	General public, project-affected people in particular
Community Participation Frameworks and Community Participation Plans	ADB website LGED website	Post fact-finding mission	General public, project-affected people in particular
Gender Action Plan	ADB website LGED website	Post fact-finding mission	General public, project-affected people in particular
Summary Poverty Reduction and Social Strategy	ADB website LGED website	Post fact-finding mission	General public, project-affected people in particular
Legal Agreements	ADB website	No later than 14 days of Board approval of the project	General public
Project Administration Manual	ADB website	After loan negotiations	General public
Social and Environment Monitoring Reports	ADB website LGED website	semi-annually	General public

ADB = Asian Development Bank, LGED = Local Government Engineering Department.

Source: ADB and LGED.

## **X. ANTICORRUPTION POLICY**

65. The government, Ministry of Local Government Rural Development & Cooperation and LGED were advised of ADB's Anticorruption Policy (1998, as amended to date). ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.<sup>23</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/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>24</sup>

66. To support these efforts, relevant provisions are included in the loan agreement/regulations and the bidding documents for the project.

67. The government will publish pertinent information relating to the project on LGED's website, including business opportunities associated with the project, and information in relation to procurement of goods, works, and consulting services.

## **XI. ACCOUNTABILITY MECHANISM**

68. 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

<sup>23</sup> ADB. 1998. [Anticorruption Policy](#).

<sup>24</sup> ADB's Integrity Office web site: <https://www.adb.org/site/integrity/main>.

operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make an effort 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>25</sup>

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

69. All revisions and/or updates during the course of implementation should be retained in this section to provide a chronological history of changes to implemented arrangements recorded in the PAM, including revision to contract awards and disbursement s-curves.

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<sup>25</sup> Accountability Mechanism. <https://www.adb.org/site/accountability-mechanism/main>.

## Attachment A: Procurement Plan

## PROCUREMENT PLAN

## Basic Data

<b>Project Name:</b> Rural Connectivity Improvement Project		
<b>Project Number:</b> 47243-004	<b>Approval Number:</b>	
<b>Country:</b> Bangladesh	<b>Executing Agency:</b> Local Government Engineering Department, Local Govt Division, Ministry of Local Government, Rural Development & Cooperatives	
<b>Project Procurement Classification:</b> Category B	<b>Implementing Agency:</b> N/A	
<b>Project Procurement Risk:</b> Low		
<b>Project Financing Amount:</b> US\$ 285,310,000 <b>ADB Financing:</b> US\$ 200,000,000 <b>Cofinancing (ADB Administered):</b> <b>Non-ADB Financing:</b> US\$ 85,310,000	<b>Project Closing Date:</b> 31 May 2024	
<b>Date of First Procurement Plan:</b> 5 July 2018	<b>Date of this Procurement Plan:</b> 17 September 2018	
<b>Procurement Plan Duration (in months):</b> 18	<b>Advance Contracting:</b> Yes	<b>e-GP:</b> Yes

## A. Methods, Review and Procurement Plan

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	The first OCB is subject to prior review, thereafter post review. The first bid evaluation report is subject to prior review, thereafter post-review.
Request For Quotation for Goods	
Open Competitive Bidding (OCB) for Works	The first OCB for each Division is subject to prior review, thereafter post review.  Prior review for first Bid Evaluation Report (BER) from each Division for the same contracts (total of 5 BERs for prior review); post-review for succeeding BERs.

Consulting Services	
Method	Comments
Quality- and Cost-Based Selection for Consulting Firm	90:10

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

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.

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
CW-01 /RCIP/RJB	Improvement and maintenance of	2,840,000.00	OCB	Prior	1S1E	Q4 / 2018	Advertising: National

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
	24.466 km of rural roads in Rajbari District						No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-02 /RCIP/CHU	Improvement and maintenance of 65.219 km of rural roads in Chuadanga District	7,210,000.00	OCB	Prior	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-03 /RCIP/RJS	Improvement and maintenance of 68.88 km of rural roads in Rajshahi District	5,610,000.00	OCB	Prior	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-04 /RCIP/DNJ	Improvement of 35.69 km of rural roads in Dinajpur District	6,810,000.00	OCB	Prior	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document:



Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
							Small Works e-GP: Y
CW-05 /RCIP/ LAX	Improvement of 37.565 km of rural roads in Laxmipur District	3,960,000.00	OCB	Prior	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-06 /RCIP/GPJ	Improvement of 46.734 km of rural roads in Gopalganj District	6,610,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-07 /RCIP/FRD	Improvement of 59.521 km of rural roads in Faridpur District	6,180,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-08 /RCIP/MDR	Improvement 64.246 km of rural roads in Madaripur District	9,240,000.00	OCB	Post	1S1E	Q4 / 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
							Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-09 /RCIP/COM	Improvement of 44.014 km of rural roads in Comilla District	5,300,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-10 /RCIP/CDP	Improvement of 40.139 km of rural roads in Chandpur District	6,210,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-11 /RCIP/CTG	Improvement of 46.070 km of rural roads in Chittagong District	6,350,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: N  Bidding Document: Small Works  e-GP: Y

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
CW-12 /RCIP/JSR	Improvement and maintenance of 47.199 km of rural roads in Jessore District	9,380,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-13 /RCIP/KST	Improvement of 78.835 km of rural roads in Kushtia District	8,480,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-14 /RCIP/NAO	Improvement of 32.422 km of rural roads in Naogaon District	4,270,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-15 /RCIP/NTR	Improvement of 31.18 km of rural roads in Natore District	4,950,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
							Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-16 /RCIP/BGR	Improvement of 53.024 km of rural roads in Bogra District	5,160,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-17 /RCIP/GBD	Improvement of 51.845 km of rural roads in Gaibandha	5,420,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-18 /RCIP/RNG	Improvement of 54.129km of rural roads in Rangpur District	6,350,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-19 /RCIP/TKG	Improvement of 36.255km of rural roads in	5,030,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
	Thakurgaon District						Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-20 /RCIP/NIL	Improvement of 51.18km of rural roads in Nilphamari District	4,970,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-21 /RCIP/JSR	Improvement of 47.47 km of rural roads in Jessore District	6,930,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-22 /RCIP/SRT	Improvement of 47.955 km of rural roads in Shariatpur District	5,910,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
							Bidding Document: Small Works e-GP: Y
CW-23 /RCIP/BBR	Improvement of 70.453 km of rural roads in Brahman Baria District	8,240,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Small Works e-GP: Y
CW-24 /RCIP/COX	Improvement of 37.954 km of rural roads in Cox's Bazar District	7,060,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Small Works e-GP: Y
CW-25 /RCIP/NOA	Improvement of 55.761 km of rural roads in Noakhali District	7,140,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Small Works e-GP: Y
CW-26 /RCIP/FNI	Improvement of 31.932 km of rural roads in Feni District	3,310,000.00	OCB	Post	1S1E	Q4 / 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
							Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-27 /RCIP/JHN	Improvement of 65.075 km of rural roads in Jhenaidah District	8,030,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-28 /RCIP/MGR	Improvement of 53.838 km of rural roads in Magura District	6,680,000.00	OCB	Post	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-29 /RCIP/MHR	Improvement of 13.081 km of rural roads in Meherpur District	1,630,000.00	OCB	Prior	1S1E	Q4 / 2018	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
							e-GP: Y
CW-30 /RCIP/NRL	Improvement of 50.499 km of rural roads in Narail District	4,560,000.00	OCB	Prior	1S1E	Q1 / 2019	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-31 /RCIP/RJS	Improvement of 67.074 km of rural roads in Rajshahi District	6,650,000.00	OCB	Post	1S1E	Q1 / 2019	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-32 /RCIP/CNW B	Improvement of 17.568km of rural roads in C. Nawabgonj District	2,410,000.00	OCB	Post	1S1E	Q1 / 2019	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-33 /RCIP/JOY	Improvement of 34.202 km of rural roads in Joypurhat District	3,170,000.00	OCB	Post	1S1E	Q1 / 2019	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N



Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
							Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-34 /RCIP/LAL	Improvement of 33.462km of rural roads in Lalmonirhat District	4,940,000.00	OCB	Post	1S1E	Q1 / 2019	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-35 /RCIP/KUR	Improvement of 45.383 km of rural roads in Kurigram District	4,090,000.00	OCB	Post	1S1E	Q1 / 2019	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-36 /RCIP/DNJ	Improvement and maintenance of 45.008 km of rural roads in Dinajpur District	5,780,000.00	OCB	Post	1S1E	Q1 / 2019	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
CW-37 /RCIP/PAN	Improvement of 26.38 km of	3,530,000.00	OCB	Post	1S1E	Q1 / 2019	Advertising: National

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
	rural roads in Panchagarh District						No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Small Works  e-GP: Y
GP-01 /RCIP/PMU	Air blower (200 nos.)	1,200,000.00	OCB	Prior	1S1E	Q2 / 2019	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Goods  e-GP: Y
GP-02 /RCIP/PMU	Mobile bitumen boiler (34 nos.); Bitumen sprayer (hand sprayer) (34 nos.); Bitumen sprayer (truck mounted) (5 nos.); lab equipment - bitumen softening point (9 nos.); Bitumen extractor (7 nos.); Bitumen viscosity testing equipment (1 no.); Corecutter	1,290,000.00	OCB	Prior	1S1E	Q2 / 2019	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Goods  e-GP: Y
GP-03 /RCIP/PMU	Laser profilometer (double beam with dedicated vehicle) (7 nos.)	1,180,000.00	OCB	Prior	1S1E	Q2 / 2019	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
							Bidding Document: Goods e-GP: Y
GP-04 /RCIP/PMU	Thermoplastic road marking paint stripping equipment with heating arrangement (9 nos.); Falling weight deflectometer (7 nos.); Universal testing machine (5 nos.); Compressive strength testing machine (9 nos.)	1,020,000.00	OCB	Prior	1S1E	Q2 / 2019	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Goods e-GP: Y
GP-05 /RCIP/PMU	Pick-up vehicle (34 nos.)	1,999,999.00	OCB	Prior	1S1E	Q2 / 2019	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Goods e-GP: Y
GP-06 /RCIP/PMU	4-Wheel Drive Jeep	870,000.00	OCB	Post	1S1E	Q2 / 2019	Advertising: National No. Of Contracts: 1 Prequalification of Bidders: N Domestic Preference Applicable: N Advance Contracting: Y Bidding Document: Goods e-GP: Y
GP-07 /RCIP/PMU	Motorcycle	750,000.00	OCB	Post	1S1E	Q2 / 2019	Advertising: National No. Of Contracts: 1

Goods and Works							
Package Number	General Description	Estimated Value (in US\$)	Procurement Method	Review	Bidding Procedure	Advertisement Date (quarter/year)	Comments
							Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Goods  e-GP: Y
GP-08 /RCIP/PMU	Desktop Computers with printer and UPS (Black & White)	280,000.00	OCB	Post	1S1E	Q1 / 2019	Advertising: National  No. Of Contracts: 1  Prequalification of Bidders: N  Domestic Preference Applicable: N  Advance Contracting: Y  Bidding Document: Goods  e-GP: Y
GP-09 /RCIP/PMU	Laptop (15 nos.); Scanner (2 nos.); Photocopier (7 nos.); Digital Still Camera (2 nos.); Internet (Installation with Wifi); Telephone Arrangement (26 nos.)	55,000.00	RFQ	Post		Q1 / 2019	No. Of Contracts: 1  Advance Contracting: Y  e-GP: N
GP-10 /RCIP/PMU	Furniture and fixtures	96,000.00	RFQ	Post		Q1 / 2019	No. Of Contracts: 1  Advance Contracting: N  e-GP: N
GP-11 /RCIP/PMU	Air Conditioner Equipment (8 nos.); Multimedia Projector with Screen(45 nos.)	61,000.00	RFQ	Post		Q1 / 2019	No. Of Contracts: 1  Advance Contracting: N  e-GP: N

Consulting Services							
Package Number	General Description	Estimated Value (in US\$)	Selection Method	Review	Type of Proposal	Advertisement Date (quarter/year)	Comments
CS-01 /RCIP/PMU	Project Implementation Support Consultant (PISC)	11,400,000.00	QCBS	Prior	FTP	Q2 / 2018	Type: Firm  Assignment: International

Consulting Services							
Package Number	General Description	Estimated Value (in US\$)	Selection Method	Review	Type of Proposal	Advertisement Date (quarter/year)	Comments
							Quality-Cost Ratio: 90:10  Advance Contracting: Y  e-GP: N  Comments: As agreed with the government
CS-02 /RCIP/PMU /CDC	Capacity Development Consultant (GIS-based development of rural road masterplan)	8,000,000.00	QCBS	Prior	FTP	Q1 / 2019	Type: Firm  Assignment: International  Quality-Cost Ratio: 90:10  Advance Contracting: Y  e-GP: N
CS-03 /RCIP/TA/C DC	Capacity Development Consultant (Transaction Technical Assistance)	1,000,000.00	QCBS	Prior	STP	Q1 / 2019	Type: Firm  Assignment: International  Quality-Cost Ratio: 90:10  Advance Contracting: Y  e-GP: N

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

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).

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

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

## **Attachment B: Terms of Reference for Consulting Services of Project Implementation Support Consultant (PISC)**

### **A. Background**

1. The Government of the People's Republic of Bangladesh has applied for financing from the Asian Development Bank (ADB) for improving priority Rural Road Network in Bangladesh. The Ministry of Local Government, Rural Development and Cooperatives (MLGRDC) acting through Local Government Engineering Department (LGED) of the Government of Bangladesh (the Client) has initiated Rural Connectivity Improvement Project which aims to improve about 2,683.269<sup>1</sup> kilometers (km) of rural roads by widening and strengthening the existing rural road infrastructure.
2. The project is proposed to be implemented by LGED through the project management unit (PMU) set up at the headquarter level. The PMU will be assisted by project implementation units (PIUs) which will be set up at the division level. The contract administration of the civil works is proposed to be carried out by LGED district/*upazila* offices.
3. The project will cover five divisions of Bangladesh spanning almost the entire country except the north eastern part. The project will enhance people's accessibility to the market thus creating opportunities for social and economic development apart from increased income. The project also proposes to enhance access to basic services, such as for health and education, of the rural population.
4. The five divisions covered are Dhaka, Chattogram, Khulna, Rajshahi and Rangapur. The roads to be improved under the project are located in 34 districts, and include improvements of *upazila* and union roads. These roads will be improved to paved and climate-resilient standards to provide all-weather road connectivity between agricultural production areas, growth center markets, and other parts of the country.
5. The project will have the following outcome: Transport efficiency on project roads increased. The key outputs include: (i) Rural road conditions between the selected rural communities, productive agricultural areas, and socio-economic centers improved; and (ii) Capacity of rural infrastructure agency and road users in project areas enhanced.

### **B. Objective of the Assignment**

6. The main objective of the project implementation support consultant (PISC) is to support the PMU, PIUs, the district- and *upazila*-level officials of LGED to implement the project. Broadly, the objectives are summarized below:
  - (i) review, check and if required do the engineering design of rural road infrastructure works necessary for implementation;
  - (ii) assist the PMU/PIUs/district units/*upazila* units in the preparation and design of project activities;
  - (iii) assist and advise the PMU/PIUs/district units/*upazila* units in all aspects of the contract administration of civil works;
  - (iv) assist and advise the PMU/PIUs/district units/*upazila* units in the supervision of physical works, including improvement and upgradation of rural roads;
  - (v) support the PMU/PIUs/district units/*upazila* units in project planning, monitoring, reporting and financial management;

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<sup>1</sup> 1,700 km to be financed under Rural Connectivity Improvement Project (RCIP), remaining is expected to be financed under additional financing to RCIP in 2019.

- (vi) assist the PMU/PIUs/district units/*upazila* units to develop training programs for staff and other stakeholders in technical and non-technical areas to improve levels of competence and build a more community oriented and gender sensitive approach, adapting climate change, addressing road safety and taking up participatory approach to performing their duties and responsibilities;
- (vii) assist the PMU/PIUs/district units/*upazila* units develop cooperative linkages and partnership programs with concerned line agencies and private sector organizations associated with maximizing benefits to the poor from the infrastructure investment; and
- (viii) assist the PMU/PIUs/district units/*upazila* units in establishing an asset maintenance and management system.

## C. Project Area

7. The project area is spread over 34 districts in 5 divisions. The division-wise road list along with the road length is shown in Table 1.

**Table 4: Division-wise Road List**

### 1. Dhaka Division

Sl. No.	Name of the District	Length of Road (km)
1.	Faridpur	59.521
2.	Gopalganj	78.405
3.	Madaripur	138.672
4.	Rajbari	70.67
5.	Shariyatpur	47.955
<b>Total</b>		<b>395.223 km</b>

### 2. Chattogram Division

Sl. No.	Name of the District	Length of Road (km)
1.	B Baria	70.453
2.	Chandpur	40.139
3.	Chattogram	91.076
4.	Cumilla	94.313
5.	Coxsbazar	37.954
6.	Feni	31.932
7.	Laxmipur	37.565
8.	Noakhali	55.761
<b>Total</b>		<b>459.193 km</b>

**3. Khulna Division**

<b>Sl. No.</b>	<b>Name of the District</b>	<b>Length of Road (km)</b>
1.	Chuadanga	107.700
2.	Jashore	201.269
3.	Jhenaidah	65.075
4.	Kushtia	78.835
5.	Magura	53.838
6.	Meherpur	13.081
7.	Narail	50.499
<b>Total</b>		<b>570.297 km</b>

**4. Rajshahi Division**

<b>Sl. No.</b>	<b>Name of the District</b>	<b>Length of Road (km)</b>
1.	Bogra	109.039
2.	Chapainawabganj	17.568
3.	Joypurhat	34.202
4.	Naogaon	103.199
5.	Natore	78.460
6.	Rajshahi	250.256
<b>Total</b>		<b>592.724 km</b>

**5. Rangpur Division**

<b>Sl. No.</b>	<b>Name of the District</b>	<b>Length of Road (km)</b>
1.	Dinajpur	203.741
2.	Gaibandha	87.690
3.	Kurigram	45.383
4.	Lalmonirhat	33.462
5.	Nilphamari	101.480
6.	Panchagarh	62.566
7.	Rangpur	54.129
8.	Thakurgaon	77.381
<b>Total</b>		<b>665.832 km</b>

**D. Overall Scope of Services**

8. The main task of the PISC can be broadly categorized under four heads, namely:
  - (i) Support/Assist LGED in engineering design and preparation of project specific safeguard documents.
  - (ii) Assist in preparation of documents related to procurement of works, goods and services.
  - (iii) Assist in supervision of civil works.
  - (iv) Develop capacity building measures for the client.
9. The PISC team shall work under the PMU's guidance to ensure completion of tasks assigned in a professional and time-bound manner.
10. The PISC team's scope of services shall include but not be limited to the following:
  - (i) Assisting LGED in necessary engineering surveys and investigation including subsoil investigation, hydrological and morphological study, if required for preparation of detailed engineering report.



- (ii) Providing engineering support in designing various components (including road safety) required for execution of the project, based on surveys and investigations and detailed engineering drawings. The design and drawings shall be prepared based on standards of LGED and awareness of latest international practice in rural road design, including software and formats to be adopted by LGED.
- (iii) Assisting in preparation of engineer's estimates and tender documents for subsequent civil works under the project. The document must have provisions for road safety for *upazila* and union roads.
- (iv) Assisting the PMU in preparing and implementing project activities, including planning, scheduling, procuring works, goods and services, setting methodologies, and training LGED staff for sustainable operations and maintenance of improved infrastructure, as well as operating the quality control regime.
- (v) Assisting the PMU in planning, monitoring reporting and managing finances, including project framework techniques for planning, training and financial monitoring during project implementation.
- (vi) Assisting and advising the PMU in all aspects of procurement including, evaluation of bids/proposals for goods and works, and contract awards.
- (vii) Supporting in field supervision of civil works, developing and implementing procedures for regular on-site checking, quality control, testing and monitoring of works execution and construction methods.
- (viii) Assisting and advising the PMU in administration of contracts.
- (ix) Certifying payments to contractors and completion procedures; developing procedures for laboratory and field tests for materials quality control; support LGED materials laboratories operation; and certification of quality and work progress.
- (x) Assisting the PMU in planning and implementing land donation scheme, where applicable, and reporting and documenting such; identifying and reporting adverse environmental and social impacts by carrying out initial environmental examination and initial social assessment for the subproject; modifying designs and practices to avoid land acquisition and mitigate the impacts, such as by preparing and updating environmental management plans (EMPs) and social mitigating plan; preparing monthly, quarterly and final reports including the draft project completion report that include a section on safeguards monitoring; and preparing semi-annual safeguards monitoring reports.
- (xi) Assisting the PMU in preparation of overall project management plan, annual work plan including budget disbursement plan, and in preparing withdrawal applications to ADB.
- (xii) Assisting the PMU in reviewing existing monitoring system and suggesting improvements on the monitoring system.
- (xiii) Assisting the PMU in planning and implementing a training program including developing training manuals, preparing a training budget, and preparing training reports; assisting the PMU in preparing and implementing overseas training program under the project.
- (xiv) Assisting the PMU in organizing semi-annual review meetings of the project.
- (xv) Preparing a Draft Completion Report at the end of the three-year maintenance activities of pilot projects. This report shall include, among other requirements, the traffic related survey on the newly constructed roads, pavement condition report. The data shall form the basis of future maintenance requirements after completion of the civil work contracts.

- (xvi) Preparing a Final Evaluation Report on the construction and 3-year maintenance activities.
- (xvii) Assisting the PMU in undertaking traffic survey, developing economic profile, undertaking economic and financial evaluation and all tasks related to a study of transport economics under the project.
- (xviii) Assisting the PMU in implementing the gender action plan including compliance monitoring; and preparing all social and gender related reports and other technical report as necessary.
- (xix) For smooth implementation of the project, the PISC is expected to perform any additional tasks/duties identified and assigned by the Project Director.

## **E. Institutional Arrangements**

11. Procurement of civil works will be executed through National Competitive Bidding. The Conditions of Contract will be the General Conditions of Contract followed by LGED. The “Project Manager” will be defined in the contract data, which normally will be the Executive Engineer of the district under which the project will be executed. The “Project Manager” will have his Authorized Representative at each *upazila* level who normally will be the *Upazila* Engineer of the project *upazila*.

12. The PISC will assist the executing agency, LGED, in the implementation of the project. The Consultant will work directly with LGED and support/assist the Project Director and his team in the PMU, Deputy Project Directors in PIUs at division level, and Executive Engineers at district level and in the project areas at the *upazila* level, in order to achieve the objectives of the project.

## **F. Duration of the Assignment:**

13. The assignment of PISC is expected to commence in Q1 2019 and the services of the consultant team are required for 24 months during execution and 36 months during the maintenance period of five packages chosen on pilot basis.

## **G. Output and Reporting Requirements**

14. The consultant's outputs will include contributions to the project's milestones, relating to the expertise of the consultants in the team.

15. The reporting requirements shall be as per Table 2:

**Table 5: Reporting Requirements**

<b>Sl. No.</b>	<b>Report</b>	<b>Frequency</b>	<b>Due Period</b>	<b>No. of Copies</b>	<b>In CD or Flash Disk</b>
1.	Inception Report	One time	Within 1 month after commencement date	5	2
2.	Monthly Report	Monthly	10th of the month following the reporting month	5	2
3.	Quarterly Report	Every 3 months	10th of the month following the reporting quarter.	5	2
4.	Annual Report	Four Times	1 month after the commencement month every year	5	2

Sl. No.	Report	Frequency	Due Period	No. of Copies	In CD or Flash Disk
5.	Midterm Report	One time	2.5 years after commencement date	5	2
6.	Construction and Maintenance Report	One time	After completion of construction plus three years of maintenance.	5	2
7.	Draft Project Completion Report	One time	At the commencement of Defects Liability Period.	5	2
8.	Project Completion Report	One Time	At the end of the assignment.	5	2

16. **Inception Report:** The report will include the consultant's proposals of the detailed project implementation arrangements and the planned activities for different components based on the initial assessment. The report will also include the detailed work program and approach towards the assignment.

17. **Monthly Report:** The consultant will submit a monthly report which must reflect all the activities undertaken during the month of the reporting period. The report must contain the targets and achievements.

18. **Quarterly Reports:** The consultant shall furnish quarterly progress reports on physical and financial progress and on implementation progress, including achievements and problems faced, if any, and the measures to overcome the constraints. The quarterly reports shall be factual and concise with recommendations for the subsequent quarter.

19. **Annual Reports:** The consultant shall furnish to the ADB and LGED an annual report covering all activities in the last 12 months. In addition to summarizing key facts and issues presented in the 4 quarterly reports for the reporting period, the annual report shall include the Consultant's views on the strengths and weaknesses of the project implementation arrangements and remedial actions to be taken if any.

20. **Midterm Report:** The report will summarize the progress of achieving the physical and financial targets and DMF indicators. It will recommend actions to fill the gaps, if any. It will also review the project's compliance with environment and social requirements.

21. **Construction and Maintenance Report:** This report will consolidate the annual reports and focus on issues during implementation of the project. The report shall include, among other requirements, the traffic related survey on the newly constructed roads, and the Pavement Condition report.

22. **Draft Project Completion Report:** This report is to be submitted after completion of services but within the completion period. This report will include the project performance on technical and financial components including social and environmental issues.

23. **Project Completion Report:** The consultant shall prepare a comprehensive completion report of all components of the project including civil works and consulting services. The report shall incorporate summaries of the methods of construction, the construction supervision performed, problems encountered, and solutions undertaken thereon and recommendations for future projects of similar nature to be undertaken by LGED. The report shall also contain final evaluation report of the construction and maintenance-related aspect for the relevant packages.

24. The Consultant shall include the self-appraisal in the report in compliance with ADB requirements for project completion report of executing agencies, including detailed data and information gathered and recorded during the project implementation.

25. **Manual for Project Implementation:** In addition to the reports mentioned above, the Consultant shall prepare a manual for administration, supervision and management of the project and the construction contracts to be implemented. It will serve as a guide and reference to the various officials in charge of the project management and supervision in discharging their duties in a smooth and systematic manner.

26. Workshops and Training Sessions:

- (i) **Seminars/Workshops.** The consultant shall conduct for LGED officials semi-annual seminars/workshops on key aspects of technical capacity improvement and progress to date. Workshops on social/environmental safeguards and social inclusion shall be conducted on as-needed basis.
- (ii) **Training sessions.** The consultant will provide on-the-job training to LGED officials on a day-to-day basis. Small class room style sessions shall be conducted monthly or quarterly as needed to supplement the daily trainings. The semi-annual seminars/workshops will present weaknesses and strengths of LGED officials identified during these training sessions, and the recommendations and suggestions from participants shall be used for improving the training methods.

## H. STAFFING INPUTS

27. The consulting services will require the experts shown in Table 3 on an intermittent basis during 60 months, covering 24 months for construction period and 36 months for maintenance period for Pilot Packages selected for Construction and Maintenance.

**Table 6: Required Consulting Services**

Sl. No.	Particulars	Unit	Nos.	Estimated Man-Month
<b>A. Key Experts (International)</b>				
1	Team Leader cum Senior Rural Road Specialist	PM	1	27
<b>Total for Key Experts (International)</b>				<b>27</b>
<b>B. Key Experts (National)</b>				
1	Deputy Team Leader cum Rural Road Engineer	PM	1	60
2	Contract Management Specialist	PM	1	30
3	Senior Safeguard Specialist	PM	1	24
4	Structural Engineer	PM	1	24
5	Financial Management Specialist	PM	1	44
6	Road Safety Specialist	PM	1	24
7	Resident Engineer cum Quality Control Engineer	PM	9	216
8	Assistant Resident Engineer	PM	34	1836
9	Transport Economist/ Benefit Monitoring and Evaluation Specialist	PM	1	18
10	Procurement Specialist	PM	1	24
11	Social Safeguard and Gender Specialist	PM	3	72
12	Environment Specialist	PM	5	45
13	Hydrologist	PM	1	12
14	Training Specialist	PM	1	24

Sl. No.	Particulars	Unit	Nos.	Estimated Man-Month
	<b>Total Key Experts (National)</b>		<b>61</b>	<b>2453</b>
	<b>Total for Key Experts</b>		<b>62</b>	<b>2480</b>
	<b>C. Non-key Experts (National)</b>			
1	Field Supervising Engineer	PM	60	1764
2	Junior Engineer	PM	3	108
3	Training Coordinator	PM	1	24
4	Estimator	PM	5	156
5	CADD Operator	PM	2	24
6	MIS Manager	PM	1	60
7	Media Officer	PM	1	60
	<b>Total for Non-Key Experts</b>		<b>73</b>	<b>2220</b>
	<b>Total for all Experts</b>		<b>135</b>	<b>4700</b>

## I. Qualification and Experience Requirements of Key Personnel

### I. International Position

#### 1. Team Leader cum Project Management Specialist Position at Head Quarter with PMU, LGED.

a) Qualification	Bachelor's degree in Civil Engineering with post graduate degree in transportation/highway/structural/pavement engineering. Project Management degree will be preferred.
b) Total Professional Experience	20 years in planning, project management and implementation of rural infrastructure construction and maintenance works.
c) Project-related Experience	5 years' experience as a TL/PM. Experience of road construction and maintenance project financed by Multilateral Financing Institution will be an added advantage.
d) Overseas/Country Experience	At least eight years overseas experience is required. Developing country experience preferred.

### II. National Positions

#### 1. Deputy Team Leader/ Rural Road Engineer

a) Qualification	Bachelor's degree in Civil Engineering with Post graduate degree in Transportation/Highway/ Structural engineering.
b) Total Professional Experience	20 years
c) Project-related Experience	10 years' experience in road sector in Bangladesh
d) Experience in working with international organizations/ agencies	Preferred

#### 2. Contract Management Specialist

a) Qualifications	Bachelor's degree in Civil Engineering or other relevant fields. Preferable: Post graduate degree in Civil Engineering or other relevant fields; membership to professional institutions.
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b) Total Professional Experience	10 years
c) Project-related Experience	6 years as contracts specialist in contract administration of highway or road construction contracts (at least two contracts administered under FIDIC contract or similar conditions of contract).
d) Experience in working with international org./ agencies	Preferred

### 3. Senior Safeguard Specialist

a) Qualifications	Master's degree in Social science (Sociology/ Social Work/ Anthropology). Preferable: Post graduate degree in Environment Science or other relevant fields. Membership of professional institutions.
b) Total Professional Experience	15 years minimum
c) Project-related Experience	10 years of experience of working in community development and community awareness projects in linear highway project as Social Safeguard Specialist. Must be conversant with ADB's Safeguard requirement.
d) Experience in working with international organizations/ agencies	Preferred

### 4. Structural Engineer

a) Qualification	Bachelor's degree in Civil Engineering with Master's in Structural Engineering.
b) Total Professional Experience	15 years
c) Project-related Experience	10 years working experience in design of road, retaining walls, bridge/culvert and drainage structures.
d) Experience in working with international organizations/ agencies	Preferred

### 5 Financial Management Specialist

a) Qualification	Bachelor's degree in Finance/Accounts/Commerce/Business Administration /Chartered Accountant. Master's degree will be preferred. Professional designation in accounting (e.g., CPA/CA/CMA).
b) Total Professional Experience	15 years
c) Project-related Experience	5 years of practical experience in the field of rural infrastructure construction and financing system and accounting/auditing in Bangladesh. Knowledge of Computer based budgeting and accounting packages and direct working experience with rural infrastructure implementation project will be an advantage. Familiar with the financial rules and regulations of the Government of Bangladesh.

d) Experience in working with international organizations/ agencies	Preferred
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## 6 Road Safety Specialist

a) Qualification	Bachelor's degree in Civil Engineering. Master's degree in Transportation will be preferred.
b) Total Professional Experience	15 years
c) Project-related Experience	10 years of extensive experience in design and implementation of rural road safety in Bangladesh. A certified Road Safety Auditor will be preferred.
d) Experience in working with organizations/ agencies	Preferred

## 7 Resident Engineer cum Quality Control Engineer

a) Qualification	Bachelor's degree in Civil Engineering. Post graduate degree in Transportation/Highway/Construction Management/Construction Material engineering will be preferred.
b) Total Professional Experience	15 years
c) Project-related Experience	7 years' experience in road up-gradation and improvement project as Resident Engineer or 10 years' experience as Assistant Resident Engineer in Bangladesh. Knowledge of country specific specifications with respect to quality control.
d) Experience in working with international organizations/ agencies	Preferred

## 8 Assistant Resident Engineer (A.R.E.)

a) Qualification	Bachelor's degree in Civil Engineering. Post graduate degree in Transportation/Highway will be preferred.
b) Total Professional Experience	10 years
c) Project-related Experience	5 years' experience in road up-gradation and improvement projects as A.R.E./ Material Engineer in Bangladesh.
d) Experience in working with organizations/ agencies	Preferred

## 9 Transport Economist/ Benefit Monitoring and Evaluation Specialist

a) Qualification	Master's degree in Economics/ Transport Economics/ Finance
b) Total Professional Experience	15 years
c) Project-related Experience	7 years' experience in analysing economic aspects of road project including economic analysis. Experience in Benefit Monitoring of road projects will be preferred.

d) Experience in working with organizations/ agencies	Preferred
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### 10 Procurement Specialist

a) Qualification	Bachelor's degree in Engineering. Master's degree in Procurement will be preferred.
b) Total Professional Experience	15 years with 5 years in direct procurement related activities.
c) Project-related Experience	8 years' experience in procurement planning, preparation of bid documents, tendering, bid evaluation. Training on Public Procurement will be an added advantage. Understanding of Public Procurement Act-2006 and Public Procurement Rules 2008 of Government of Bangladesh is required.
d) Experience in working with organizations/ agencies	Preferred

### 11 Social Safeguard and Gender Specialist

a) Qualification	Master's degree in Sociology or other relevant field of Social Sciences.
b) Total Professional Experience	12 years with 5 years in sociological aspect/ resettlement issues in a linear project.
c) Project-related Experience	6 years' experience of Resettlement and Rehabilitation issues for a donor funded project. 5 years of experience in dealing with Safeguard and Gender related issues in a linear project as per Government of Bangladesh regulations and in accordance with the requirement of development partner; familiarity with the government system, profound communication skill with the local stakeholders.
d) Experience in working with organizations/ agencies	Preferred

### 12 Environment Specialist

a) Qualification	Graduate in Civil Engineering/Environmental Science and Post Graduate degree in Environmental Engineering or Environmental Science or other relevant fields.
b) Total Professional Experience	10 years with 8 years extensive experience in the implementation of road projects.
c) Project-related Experience	5 years' experience concerning environmental issues for donor funded projects.
d) Experience in working with international organizations/ agencies	Preferred

### 13 Hydrologist

a) Qualification	Bachelor's degree in Civil/ Water Resources Engineering/ Hydrology.
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b) Total Professional Experience	15 years
c) Project-related Experience	10 years of extensive experience of design and implementation of road in Bangladesh.
d) Experience in working with international organizations/ agencies	Preferred

#### 14 Training Specialist

a) Qualification	Master's degree in any social science subject, preferably in development economics and planning.
b) Total Professional Experience	10 years
c) Project-related Experience	6 years' experience in training activities in transport sector and specific experience in training in rural infrastructure sector in Bangladesh.
d) Experience in working with international organizations/ agencies	Preferred

### III. Non-Key Experts (National) National Positions

#### 1. Field Supervising Engineer

a) Qualification	Diploma in Civil Engineering Bachelor's degree in Civil Engineering is preferred.
b) Total Professional Experience	8 years for Diploma Engineer/5 years for Bachelor's degree.
c) Project-related Experience	5 years as a site engineer or equivalent position on highway/road projects of similar nature.
d) Experience in working with international organizations/ agencies	Preferred

#### 2. Junior Engineer

a) Qualification	Diploma in Civil Engineering Bachelor's degree in Civil Engineering is preferred.
b) Total Professional Experience	5 years for Diploma Engineer.
c) Project-related Experience	3 years' experience (Diploma) and no experience (Bachelor's) as a site engineer or equivalent position in development projects of similar nature
d) Experience in working with international organizations/ agencies	Preferred

### 3. Training Coordinator

a) Qualification	Post-graduate degree in any social science subject, preferably in development economics and planning.
b) Total Professional Experience	10 years
c) Project-related Experience	8 years' experience in training activities in transport sector and specific experience in training in rural infrastructure sector in Bangladesh.
d) Experience in working with international organizations/ agencies	Preferred

### 4. Estimator

a) Qualification	Diploma in civil Engineering
b) Total Professional Experience	8 years
c) Project-related Experience	5 years' experience as an estimator in the relevant field.
d) Experience in working with international organizations/ agencies	Preferred

### 5. CADD Operator

a) Qualification	Diploma in Civil Engineering
b) Total Professional Experience	3 years
c) Project-related Experience	2 years as a CADD Operator or equivalent position on highway/rural road projects of similar nature.
d) Experience in working with international organizations/ agencies	Preferred

### 6. MIS Manager

a) Qualification	Bachelor's degree in Economics/Statistics/Management.
b) Total Professional Experience	5 years
c) Project-related Experience	3 years' experience in development projects, especially in project processing, implementation, monitoring and evaluation. Experience in foreign aided projects will be preferred.
d) Experience in working with international organizations/ agencies	Preferred

## 7. Media Officer

a) Qualification	Master's degree in Communication/Mass media, or relevant subject with Bachelor's Degree in Journalism/IT/Communication/Mass media, or relevant subject.
b) Total Professional Experience	15 years
c) Project-related Experience	8 years' experience in the mass media development, multiplication, graphic design/audio-visual clip design, in development sector and related field.
d) Experience in working with international organizations/agencies	Preferred

## J. Position Based Tasks/Responsibility

28. The position-based tasks specified for each of the positions mentioned in Table 3 above are indicated in the Table 4 below. Consultants should note that the position-based tasks and responsibilities in Table 4 are only indicative and that the consultant needs to propose its own working arrangements as a team based on the overall requirements in the TORs.

**Table 7: Position-based Tasks/Responsibility (Indicative Only)**

Sl. No.	Position	Tasks/Responsibilities
<b>I. Key International Expert</b>		
1.	Team Leader (TL) Cum Senior Road Specialist	<p>Overall management of PISC team, acting as the Team Leader. The tasks typically include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Manage and guide the team of consultants;</li> <li>• Implement the tasks mentioned in the scope of works of the project;</li> <li>• Coordinate and consult with LGED and concerned stakeholders regularly;</li> <li>• Monitor the progress of the project in meeting the desired outcome and outputs;</li> <li>• Prepare improvement and financing plan for the rural road construction and maintenance;</li> <li>• Review and monitor progress of the design and monitoring framework;</li> <li>• Monitor the progress on fulfilling loan covenants if any and advise LGED on any issues;</li> <li>• Review the standard designs of LGED and suggest any modifications if required;</li> <li>• Assess the existing procurement method and strategy and suggest if any modifications are required;</li> <li>• Cooperate closely with the Project Director in planning, coordinating and monitoring project implementation;</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Advise on the preparation of contract specifications in consultation with the Project Director, in accordance with Government requirements and Donor's Guidelines;</li> <li>• Assist the Project Director in the preparation of detailed budget for all project activities, and in project financial management control;</li> <li>• Advise and assist the Project Director in preparing a detailed project implementation plan and Annual Plans of Operation which will include training activities, taking account of the need for timely completion of preparatory tasks, and improvements and up-grading prior to the monsoon season;</li> <li>• Advise on any modifications or additions required to standard designs and technical specifications used by LGED in order to meet project requirements, and prepare design standards for innovative activities;</li> <li>• Prepare and operate a monitoring plan and reporting system on the performance of planned improvements of roads in the project area;</li> <li>• Advise on preparation of standard contract documents, contract packaging, management of survey and design consultants, tender evaluation and contract award;</li> <li>• Assist the Project Director in establishing effective road improvement planning and implementation procedures in the project districts, and assist the PMU staff to monitor the procedures for selection of structures on rural roads under the project;</li> <li>• Advise on land donation, if any, and environment safeguards, and assist the social team in monitoring participation, gender and development, poverty reduction and Benefit Monitoring Evaluation (BME) aspects of the project;</li> <li>• Advise the relevant specialist on design and conduct of training programs and orientation curriculum, employing participatory approaches and manuals for various courses and workshops in line with the project objectives including gender &amp; social analysis, resettlement planning, environmental assessments, environmental management and climate change adaptation, road safety, and construction procedures, and other social development related areas in consultation with the PMU and other team members;</li> <li>• Ensure that poverty, social development and gender, as well as environmental and climate change issues, are integrated into all training/ orientation programs and courses where relevant;</li> <li>• Facilitate in arranging training and orientation programs at various levels in collaboration with relevant team members;</li> <li>• Prepare an annual training plan and budget and integrate the same into the overall annual plan of the project;</li> <li>• Act as resource person/ facilitator in different training courses;</li> <li>• Collect and compile training related data on a gender desegregated basis;</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Assist the Transport/BME specialist in preparation of the BME of the project,</li> <li>• Advise on the coordination of project activities with relevant units and cells in LGED, and liaise with other development partners, in order to ensure that the project contributes to strengthening institutional capability in LGED;</li> <li>• Identify any actions to be taken to ensure achievement of the project's objectives, outputs and result;</li> <li>• Prepare Inception report and other periodic consolidated Monthly, Quarterly and Annual reports, and at the end of the assignment, prepare consolidated final report;</li> <li>• Assist with any other project relevant duties as may be reasonably assigned by the Project Director;</li> <li>• Assist the Employer in contract administration and management of the Project and civil work contracts including monitoring of validity of security deposit made by the contractor against advances if any;</li> <li>• Interpret the technical specifications and contract documents relevant to the project;</li> <li>• Obtain related approvals from concerned authorities for any redesign of road realignment, modifications;</li> <li>• Ensure receipt of requisite insurances as per contract requirements;</li> <li>• Review documentations and advance actions for handing over of site and advise on issuing notice to set the commencement date;</li> <li>• Ensure contractor effects and implements Quality Control System;</li> <li>• Issue approval to the Contractor's detailed work program, suggest modifications if any and ensure Contractor's compliance with the Program;</li> <li>• Issue approval to the Contractors' superintending personnel with modifications if any;</li> <li>• Scrutinize and approve Contractors' construction method statements;</li> <li>• Issue finalized or revised "Good for Construction Drawings" and additional detailed drawings required for the execution of the work;</li> <li>• Issue to the Contractor amended alignment plan and profile drawings based on review of tender drawings and updated topographic surveys;</li> <li>• Approve Contractor's working drawings based on setting out details;</li> <li>• Approve setting out data for the Works finalized as a result of ground verification and survey;</li> <li>• Monitor supervision of all works and ensure proper supervision as per contract requirement;</li> <li>• Monitor closely and regularly the progress of work and advise the Contractor about corrective measures;</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Monitor status of Contractor's equipment, plant, machinery installations, housing and medical facilities;</li> <li>• Direct and/or advise Contractor to avoid and/or reduce the risk in case of any emergency;</li> <li>• Advise Contractor in all matters covering safety and care of work, environmental aspects and labour welfare;</li> <li>• Verify and recommend, if in order, Contractor's requests for advance and interim payment certificates;</li> <li>• Assist Employer in arranging relocation of services as may be needed;</li> <li>• Maintain a permanent record of all payments made to the contractors;</li> <li>• Approve "as built" drawings;</li> <li>• Inspect the works on completion of each milestone before accepting the work and report to the PMU;</li> <li>• Inspect works at appropriate intervals during Defects Notification Period and advise the PMU accordingly;</li> <li>• Ensure that contractors implement and maintain the environmental monitoring in compliance with the environmental management plan (EMP) as a part of the civil work contracts.</li> </ul>
<b>II. Key National Experts</b>		
1.	Deputy Team Leader (DTL)/ Road Engineer	<ul style="list-style-type: none"> <li>• Assist the Team Leader (TL) in all his roles and responsibilities mentioned above.</li> <li>• Act as TL during then TL's absence.</li> <li>• Act as TL during maintenance of Pilot Road Packages.</li> </ul>
2.	Contract Management Specialist	<ul style="list-style-type: none"> <li>• Assist TL/DTL in contract management.</li> <li>• Assist the team in resolving contractual issues related to Construction and Maintenance.</li> <li>• Assist in incorporating good practices in future contract documents.</li> </ul>
3.	Senior Safeguard Specialist	<ul style="list-style-type: none"> <li>• Train and provide guidance to the PMU/PIU and relevant LGED staff on principles of social and environment safeguard issues, GOB policy and ADB Safegaurd Policy Statement (2009) , and their implications for the project;</li> <li>• Provide specialist advise and support to the PMU for review and updating of the community participation framework;</li> <li>• Oversee the actual implementation of land donation with MOU through frequent field visits to check on progress and issues arising, and provide advice to the PMU/PIU on the implementation of the safeguard policy.</li> <li>• Train the PMU officials, executive engineers and <i>upazila</i> engineers based in HQ, districts and <i>Upazila</i> in grievance procedures and regulations;</li> <li>• Assist LGED in preparing full land donation plan with MOU, as required;</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Assist in establishing a system for administering the grievance procedures;</li> <li>• Support the BME survey and preparation of BME report by the Transport/BME Specialist;</li> <li>• Advise and assist the PMU/PIU and LGED Executive Engineers in social aspects of the implementation of the land donation procedures, including participation by Project Affected Persons (PAPs);</li> <li>• Report regularly to the Project Director and the TL/DTL on the progress of land donation and issues arising, and advise on actions to address significant problems;</li> <li>• Support the PMU/PIU to prepare reports on the progress of land donation which will be submitted to ADB;</li> <li>• Assist PMU and TL/DTL in preparation of monthly, quarterly, semi-annual, and annual progress reports, and project completion report.</li> <li>• Review the project's safeguard systems assessment (PSSA) including the project's likely positive and negative environmental impacts and risks, identifying the safeguard principles; and prepare a matrix on how the environmental safeguards are triggered by the project;</li> <li>• Prepare a diagnostic assessment of applicable and relevant laws, regulations, rules, and procedures for managing and mitigating the likely impacts of the project (focusing on the SPS policy principles that are likely to apply to the project);</li> <li>• Assess the country's implementation practice, capacity, and commitment to plan, implement, monitor, and report on the safeguard measures;</li> <li>• Assess gaps in safeguard documents and prepare safeguard related action program to address the identified weaknesses, including consideration on the need for capacity strengthening measures;</li> <li>• Identify measures for monitoring environmental safeguard systems performance;</li> <li>• Undertake field monitoring visits to oversee the actions taken by the contractors in regard to the implementation of EMP and suggest corrective measures if necessary;</li> <li>• Assist PMU and TL/DTL in accumulating climate vulnerability data and information from various national and if possible from international sources;</li> <li>• Investigate the current status of climate change, vulnerability and impacts over the study area and analyse in detail future climate change projections and scenarios;</li> <li>• Make detailed investigation of climate change impacts on the project's rural roads and prepare the climate resilient criteria to be incorporated in the road design by considering future climate change scenarios;</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Review periodically and report on the impact of project activities on the environment, and determine the nature and extent of environment impact, if and, caused by the Project;</li> <li>• Assist in facilitating participatory planning and the implementation of the initial environment examination recommendations; their proposed construction technology, and project implementation plan to identify any potential adverse impact;</li> <li>• Identify budget needs to strengthen LGED capacity for adequate environmental monitoring and management of the project;</li> <li>• Assist TL/DTL in reviewing all infrastructure design (climate resilient structure), their proposed construction technology, and project implementation plan to identify any potential adverse environmental impacts and climate risks;</li> <li>• Advise and support LGED in building in-house capacity for the training of LGED staff to carry out initial environmental examination for its projects, awareness-building of and motivating stakeholders/beneficiaries on environmental issues;</li> <li>• Monitor EMP and prepare compliance progress toward the expected outcomes, verify monitoring information to identify adverse environmental impacts, document results, identify the necessary corrective actions, and reflect them in a corrective action plan;</li> <li>• Keep liaison with institutions responsible for climate change issues in Bangladesh to keep abreast on all information necessary to assist the TL in planning and designing climate resilient infrastructure for the project;</li> <li>• Develop monitoring and guidance tools for climate resilient improvements of the rural roads including climate resilient check list;</li> <li>• Prepare training materials and provide training to LGED engineers and stakeholders on environment and climate change, impacts and adaptation especially for climate resilient road maintenance;</li> <li>• Contribute to the training of LGED staff and contractors on implementation procedures and technical matters related to environment and climate change compliance;</li> <li>• Provide inputs into training course for the project as required;</li> <li>• Prepare environmental field monitoring report, quarterly, annual, and midterm progress reports, and project completion report;</li> <li>• Other duties as may be identified by the Project Director and TL/DTL.</li> </ul>
4.	Structural Engineer	<ul style="list-style-type: none"> <li>• Liaise with the PIU, district and <i>upazila</i> LGED staff and assist as required in the design of embankment, pavements, drainage structures and protection works;</li> <li>• Responsible for all types of design such as for roads, culverts, drainage structures and protection works;</li> <li>• Assist PMU and TL in developing standard design and technical specifications covering climate-resilient and road safety measures for all project civil works</li> </ul>



Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Conduct engineering surveys and investigations as required for preparing designs of civil works under the project;</li> <li>• Prepare engineering drawings for roads, culverts, drainage structures and protection works to be executed under the project;</li> <li>• Prepare technical design criteria for roads and culverts specially in embankment design, protection measures, cross drainage capacity;</li> <li>• Report all unusual design conditions to the TL and DTLs and discuss solutions appropriate to the conditions;</li> <li>• Undertake special designs if necessary where standard design produced by LGED requires modification;</li> <li>• Undertake regular field visits to the project districts to review implementation and supervision of civil works and contribute to resolving any issues arising;</li> <li>• Arrange to carry out any necessary changes in design during the construction period;</li> <li>• Assist PMU/TL as necessary in all respect of design and specification;</li> <li>• In conjunction with PMU check all designs and documents prepared for the projects;</li> <li>• Contribute to the training of PMU and LGED district and <i>Upazila</i> staff on project implementation procedures and technical matters;</li> <li>• Provide inputs to developing a training course for the project as required; and</li> </ul>
5.	Financial Management Specialist	<ul style="list-style-type: none"> <li>• Work under supervision and guidance of PMU and TL/DTL, provide support and guidance to the PMU and LGED financial and accounting staff, including district accounting staff;</li> <li>• Develop a monitoring format for monthly progress monitoring of activities and tasks relevant to financial management of the project.</li> <li>• Effectively manage the financial aspects of the project in a timely and coordinated manner.</li> <li>• Be responsible for accurately monitoring and reporting actual and projected expenditures of funds (from government and ADB sources) on a monthly basis and quarterly basis.</li> <li>• Assist PMU to prepare monthly and quarterly financial statements, and quarterly, semi-annual, and annual progress reports and completion report.</li> <li>• Visit district accounting staff periodically for compliance monitoring of disbursement and accounting requirements and provide technical support.</li> <li>• Liaise with representatives of the ADB for the project, as necessary and directed by the Project Director.</li> <li>• Assist PMU to prepare annual project financial statements in the form acceptable to ADB.</li> <li>• Advise on actions to be taken to mitigate gaps in internal controls and effectively follow up on actions to be taken.</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Advise on compliance with loan covenants and ensure that compliance with the covenants is maintained.</li> <li>• Advise and monitor audit observations, and effectively follow up and implement audit recommendations for resolving any audit issue.</li> <li>• Assist PMU to address issues raised by ADB on audited project financial statements and effectively follow up on actions to be taken.</li> <li>• Ensure adherence to ADB requirements and regulations in financial reporting and controls.</li> <li>• Perform any other relevant tasks given by the Project Director and TL/DTL.</li> <li>• Provide capacity building support to LGED (including PMU and district staff of the project).</li> <li>• Identify training needs of LGED staff, prepare tentative training program and coordinate with other relevant projects in preparing training modules, and implement the training program</li> <li>• Prepare manuals for conducting continuous financial training and provide annual financial training to LGED staff</li> <li>• Ensure that relevant staff of LGED and other offices understand the differing requirement of the co financiers in budgeting and disbursing funds</li> <li>• Advise on the TORs for conducting internal audits</li> <li>• Assist with any other duties as may reasonably be assigned by LGED and agreed with the ADB</li> <li>• Prepare monthly report, quarterly report, annual report in connection to the financial management of the project's, including status of Financial Management Action Plan (in the Project Administration Manual) and LGED capacity building support.</li> <li>• Assist in monitoring of security deposit validity against advances made to the contractors if any</li> </ul>
6.	Road Safety Specialist	<ul style="list-style-type: none"> <li>• Take stock of the prevailing situation and trends by studying accident data and reviewing reports;</li> <li>• Review the Traffic Safety Plan and the accident statistics of the project area (district/<i>upazila</i>), and carry out detailed road traffic safety inspection and design works to meet the project objectives;</li> <li>• Assist the TL/DTL in his/her works and carry out the detailed design and cost estimates for the road safety component;</li> <li>• Conduct road safety audit/inspection on sample roads (at least two from each district) and document the issues and the counter measures (engineering and non-engineering);</li> <li>• Supervise the road safety works implemented in the project area and collect impact data following the monitoring data;</li> <li>• Identify project districts with higher accident rates and conduct road safety training in that district vigorously;</li> <li>• Assess the impact of the proposed activities in reducing accident incidents;</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Provide training and workshops for LGED staff, stakeholder, beneficiaries, community people, LGIs representatives, vehicle operators and vehicle owner on road safety issues;</li> <li>• Contribute content on road safety activities, status and issues to prepare monthly report, quarterly report, annual, and midterm progress reports, and project completion report;</li> <li>• Assist LGED in formulating and applying an LGED-focused rural road safety policy and action plan;</li> <li>• Develop and oversee a road accident data management system for the RMRSU, including defining the data requirements and collection procedures, and conducting the initial data analysis;</li> </ul>
7.	Resident Engineer cum Quality Control Engineer	<ul style="list-style-type: none"> <li>• Assist the PMU/PIU and TL/DTL in implementation of all activities of the project;</li> <li>• Assist the PMU/PIU and TL/DTL in the preparation of annual road improvement plans of operations;</li> <li>• Assist the PMU/PIU and TL/DTL in planning, coordinating and monitoring project implementation including preparation of detailed budgets for all project activities;</li> <li>• Assist PMU/PIU and TL/DTL to assess, select and prepare the list of candidate road subprojects for improvement based on criteria and detailed road condition survey;</li> <li>• Assist the PMU/PIU and TL/DTL in developing standard contract documents for the project's civil works, contract packaging, preparation of tender/ bidding documents, and evaluation of tenders for the civil works;</li> <li>• Oversee and supervise the work of Assistant Resident Engineer and Field Supervising Engineers (FSEs);</li> <li>• Oversee and support the engineering survey (Topographical Survey and Detailed Road Condition Survey) and data collection for all rural infrastructure improvement subprojects, including sample site inspections, and recommend remedial actions to the PMU where problems arise;</li> <li>• Assist PMU and TL/DTL in developing standard design and technical specifications covering climate-resilient and road safety measures for all the civil works;</li> <li>• Assist PMU in verifying improvement cost estimates for selected roads including for climate proofing infrastructure proposed for improvement;</li> <li>• Monitor the progress and quality control of the improvement activities of subprojects administered by LGED District and <i>Upazila</i> Offices;</li> <li>• Undertake regular field visits to the project districts to review implementation and supervision of the civil works, and contribute to resolving any issues arising;</li> <li>• Assist PMU to monitor the progress of land acquisition or land donation with MOU;</li> <li>• Guide and oversee the work of Environment/Climate Change Specialist and check the effectiveness of the environmental mitigation measures;</li> <li>• Contribute to the training of PMU, LGED staff (District and <i>Upazila</i> level) and stakeholders on project implementation procedures, technical matters, environmental and climate change matters;</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Assist PMU/PIU and TL/DTL in providing certification of the due quantity and quality of works based on cross checking of on-site approvals by the Field Supervising Engineers;</li> <li>• Inspect the existing LGED laboratories, and define any additional equipment requirements and improvements in operational procedures and staffing to meet project needs;</li> <li>• Define training requirements for LGED laboratory and field supervision staff on testing and quality control procedures, including preparation of training materials as necessary;</li> <li>• Contribute to the training of LGED staff and contractors on testing and quality control procedures;</li> <li>• Monitor and check on a continuous basis, through regular visits and on-site inspections, the performance of laboratory and on-site testing, and advise on remedial actions as needed;</li> <li>• Provide continuing advisory support, through LGED executive engineers and <i>Upazila</i> engineers, to laboratory and on-site supervision staff, on improvements in quality control procedures;</li> <li>• Assist the PMU and LGED executive engineers in reviewing and checking site investigations carried out by others;</li> <li>• Report regularly to the TL/DTLs on quality control matters, and identify any critical issues, which require attention;</li> <li>• Advise on the content and organize training courses where necessary for LGED district and <i>Upazila</i> staff and for contractors on construction methods, on-site supervision and quality control, laboratory testing procedures, environmental requirements and contract management;</li> <li>• Contribute to the preparation of monthly, quarterly, annual and midterm report;</li> <li>• Assist with any other duties as may be reasonably assigned by the Project Director.</li> </ul>
8.	Assistant Resident Engineer	<ul style="list-style-type: none"> <li>• Assist in management and contract administration of the assigned project road packages.</li> <li>• Scrutinize and / or review Contractor's superintending personnel and report to TL, on modifications, if any.</li> <li>• Interact with Employer's representative at divisions/districts.</li> <li>• Scrutiny, checking and verification of setting out data</li> <li>• Carry out supervision of all works as per approved method statements.</li> <li>• Examine Contractor's preparation and the completed position of work as per "request for inspection," and promptly advise the contractor.</li> <li>• Monitor closely and regularly the progress of work and report to the TL/Employer's representative at divisions/districts.</li> <li>• Carry out regular inspection of Contractor's equipment, plant, machinery, installations, housing and medical facilities.</li> <li>• Direct Contractor to carry out works, as may be necessary, to avoid or reduce the task in case of any emergency.</li> <li>• Supervise the Contractor on all matters concerning the safety of works, workmen and environmental aspects and labour welfare.</li> <li>• Witness sampling and testing being carried out by staff of the Contractor and undertake additional audit tests to ensure quality.</li> <li>• Monitor and review the test results/ certificates for all construction materials and/or sources of materials, and report to TL.</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Examine the requests for advances and monthly statements of contractors and examine interim payment certificates.</li> <li>• Assist the Employer in correspondences, arranging meetings and preparation of details related to the assigned project road package.</li> <li>• Maintain a permanent record of all measurements for the works /quantities to be paid for and payment dates.</li> <li>• Assist TL in preparing reports.</li> <li>• Review “as-built” drawings prepared by the Contractor and maintain record of tests of all data and records.</li> <li>• Maintain a permanent record of all tests carried out for monitoring the quality of works.</li> <li>• Maintain a day-to-day journal recording all events relevant to the works.</li> <li>• Assist the PMU/TL in planning, coordinating and monitoring of project implementation, including preparation of the annual plans of operations and detailed budgets for all project activities.</li> <li>• Undertake transect walk and prepare subproject-wise Detailed Project Reports (DPRs) if required on a particular road, with the assistance of the team of consultants and field-level LGED officials. Thereafter, submit these DPRs to the TL for submission to the Project Director, for approval of the ADB;</li> <li>• Identify project management issues arising from the monitoring of physical and financial progress, and bring these to the attention of the Project Director;</li> <li>• Assist in the development of standard designs and technical specifications for all the civil works;</li> <li>• Review detailed engineering designs and bills of quantities, and evaluate tenders for civil works;</li> <li>• Undertake regular field visits to all project districts to review implementation and supervision of the civil works, and contribute to resolving any issues arising;</li> <li>• Prepare procedures for the conduct of regular road surveys and traffic count surveys on bitumen-surfaced <i>upazila</i> roads (UZR) and prepare procedures for planning the annual program of UZR and UNR (Union Roads) for improvement works under the project;</li> <li>• Assist the PMU to monitor the progress of land acquisition/land donation if any, and the application and effectiveness of environmental mitigation measures;</li> <li>• Contribute to the training of PMU and LGED district and <i>upazila</i> staff on project implementation procedures and technical matters;</li> <li>• Advise on the establishment of sample on-site checks of the execution of civil works, and of quality and quantity control, and provide advice on remedial actions as required;</li> <li>• Assist with the certification of the due quantity and quality of all works, based on cross-checking of on-site approvals by the Field Supervision Engineers;</li> <li>• Assist the PMU and the executive engineers in identifying training requirements for LGED district and <i>upazila</i> staff and for local contractors;</li> <li>• Advise on the content and organization of training courses where necessary, and the conduct of training for LGED district and</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<p><i>upazila</i> staff and for local contractors, on construction methods, on-site supervision and quality control, laboratory testing procedures, and contract management;</p> <ul style="list-style-type: none"> <li>• Contribute to the preparation of quarterly, annual and mid-term reports, and participate in regular co-ordination meetings with project implementation staff; and</li> <li>• Assist with any other duties as may be reasonably assigned by the Project Director and agreed with the ADB.</li> </ul>
9	Transport Economist/ Benefit Monitoring and Evaluation Specialist	<ul style="list-style-type: none"> <li>• Confirm traffic volumes and modal mix through traffic surveys, determine economic and financial parameters, and assess economic benefits;</li> <li>• Prepare economic profiles of project districts and the transport network; advise on the methodology to be used to determine and verify socio-economic benefits expected from the project (e.g., definition of road influence areas, bases for determining increasing yield, analyses of farm-gate pricing with and without upgraded and maintained infrastructure);</li> <li>• Estimate the net value from improvement of roads and facilities on social aspects and agricultural production;</li> <li>• Assess and quantify detailed costs and benefits of the project, and prepare economic and financial assessments;</li> <li>• Undertake a detailed economic and financial evaluation with sensitivity analysis of the subprojects;</li> <li>• Prepare item-wise detailed budget of the project, total cost estimates, and investment plan based on the subproject design cost estimates in a format acceptable to PMU;</li> <li>• Monitor benefits of the already implemented subprojects, assess accrued benefits, and find out constraints, if any, and suggest remedial measures to be adopted for the upcoming subprojects.</li> <li>• Assist in the preparation and determination of economic data for input into road improvement and upgrading management systems operated by LGED, and assist in operation of the system and examine outputs relative to the project;</li> <li>• In close cooperation with the PMU, develop, improve or refine detailed methodologies, data collection instruments and analytical procedures for monitoring and evaluation (M&amp;E) of implementation progress in physical and financial terms, and the overall economic and social impacts of project investments.</li> <li>• Plan and supervise the regular collection of data to monitor and evaluate the effects on traffic and the economic benefits of road improvement and upgrading;</li> <li>• Design and manage the conduct of special studies on the economic and social impacts as may be required;</li> <li>• Develop detailed methodologies, data collection instruments, and analytical procedures for monitoring and evaluation of overall economic and social impacts of project investments for preparation of the Baseline, Midterm and Terminal (BME) report;</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Train BME field supervisors and LGED enumerators in data collection procedures, as required during project implementation, and carry out the analysis of the BME data collected;</li> <li>• Prepare a reporting schedule that facilitates the analysis of the project development objectives progressively and implement approved schedule, and reports progress and any issues of concern;</li> <li>• Assist the PMU and TL/DTL in preparation of monthly, quarterly, semi-annual, and annual progress reports, and completion report;</li> <li>• Other project related duties as may be identified by the Project Director and TL.</li> </ul>
10.	Procurement Specialist	<ul style="list-style-type: none"> <li>• Review the procurement plan of the project according to the Government of Bangladesh's procurement thresholds, procurement methods and approval requirements (prior or post) in connection with procurement of goods and works under the project, and advise the PMU on its application;</li> <li>• Support and advise the PMU in preparing, monitoring and reporting on their annual procurement plans for works and goods, and in resolving any significant problems and issues arising;</li> <li>• Assist the PMU in the procurement of civil works, equipment and vehicles, including preparation of specification and bidding documents, tendering and contract award; and preparing bid evaluation reports in accordance with ADB's procurement requirements;</li> <li>• Assist the PMU in the preparation of tender and contract documents for all construction and maintenance civil works, and in the tendering process, contract award and contract management and administration, in accordance with the GOB Public Procurement Rules, 2008;</li> <li>• Advise the PMU in resolving any significant issues and problems that arise in procurement and contract management;</li> <li>• Prepare training materials and contribute to the training of relevant LGED staff on procurement and contract management;</li> <li>• Support the PMU and TL/DTL in monitoring and reporting on procurement and contract management;</li> <li>• Assist TL/DTL and PMU in updating the procurement plan annually for goods and works, and suggest methods to be used;</li> <li>• Assess ongoing procurement reforms including e-procurement in the country, and feedback from the donor funded projects on the systemic issues;</li> <li>• Suggest how the country's procurement process can be further strengthened through this project;</li> <li>• Assist PMU and TL/DTL in preparation of monthly, quarterly, semi-annual and annual progress reports, and project completion report;</li> <li>• Perform other project related duties as may be identified by the Project Director and TL/DTL.</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
11.	Social Safeguards and Gender Specialist	<ul style="list-style-type: none"> <li>• Support the PMU to develop and operate monitoring and reporting formats for different social aspects of project implementation.</li> <li>• Guide and support PMU on the identification and involvement of disadvantaged women, the poor and indigenous communities in the project activities and the generation of benefits for them.</li> <li>• Provide support to the PMU in monitoring and reporting on social aspects of project implementation.</li> <li>• Generally, provide specialized guidance and support as required to the PMU staff on other aspects of the Project with social dimensions such as road safety, land donation and environmental management and adaptation.</li> <li>• Support the PMU as required in training initiatives for capacity development of the poor, women and other disadvantaged groups.</li> <li>• Assess the progress on key social issues in project implementation through regular field visits and inspections, report to the Project Director and the TL/DTL, and advise on actions to address significant problems arising.</li> <li>• Provide guidance in developing policy, programs and procedures of the project to implement the Gender Action Plan and enhance contribution to social development;</li> <li>• Assist the TL/DTL to plan, design, prepare curriculum, deliver, monitor and evaluate training/orientation program on gender and social analysis, and support incorporating gender aspects in the training for the project targeted participants</li> <li>• Provide social and gender inputs for all the trainings both at institution and community levels;</li> <li>• Ensure implementation and monitoring of Gender Action Plan, and women-friendly project grievance mechanism will be put in place</li> <li>• Ensure a gender equitable working environment in the project;</li> <li>• Assist in installing a gender-based monitoring system at all levels in collaboration with the PMU, TL/DTL and Resident-cum-Quality Control Engineer;</li> <li>• Undertake and initiate research and analysis of operational strategies and impact of the project in attaining the goal of gender, and social development both at project and community levels;</li> <li>• Review and if necessary revise the Gender Action Plan;</li> <li>• Prepare a component-wise annual plan and budget for gender and development activities, and integrate this in the overall annual plan of the project;</li> <li>• Prepare monthly, quarterly, semi-annual and annual progress, and project completion reports on social, gender and poverty aspects;</li> <li>• Assist the PMU/PIU and TL/DTL in preparation of monthly, quarterly, semi-annual and annual progress and project completion reports;</li> <li>• Perform other duties as may be assigned by the Team Leader in consultation with the Project Director.</li> </ul>



Sl. No.	Position	Tasks/Responsibilities
12.	Environment Specialist	<ul style="list-style-type: none"> <li>• Review ADB SPS 2009, Government of Bangladesh applicable environmental laws and regulations, project's initial environmental examination report including all environment checklists included in the DPRs with emphasis on the individual roads/packages' likely positive and negative environmental impacts and risks, identifying the safeguard principles, and prepare a matrix on how the environmental safeguards are triggered by the project;</li> <li>• Assess the country's implementation practice, capacity, and commitment to plan, implement, monitor, and report on the safeguard measures;</li> <li>• Assess environment gaps, if any, prepare safeguard related action program to address the identified weaknesses, including consideration on the need for capacity strengthening measures;</li> <li>• Identify measures for monitoring environmental safeguard systems performance;</li> <li>• Undertake at least semi-annual field monitoring visits to oversee the actions taken by the contractors in regard to the implementation of EMP and suggest corrective measures if necessary;</li> <li>• During preparation of bidding documents, clearly identify environmental responsibilities;</li> <li>• Assist LGED to review the Construction Contractor's Environmental Program to be prepared by the contractor in accordance with the EMP, relevant plans and ADB Environmental Guidelines, and to make recommendations to LGED regarding any necessary amendments for its approval;</li> <li>• Assist LGED to implement the measures identified in the EMP to include liaisons with concerned agencies to secure necessary clearances and permits (e.g., tree cutting, utility shifting, working near irrigation canals);</li> <li>• Monitor the effectiveness of EMP and negative impacts on environment caused by the construction works, and provide technical advice, including a feasible solution, so LGED can improve the situation when necessary;</li> <li>• Prepare bidding documents which include the clauses to have the Contract comply with the requirements of the EMP and SPS 2009;</li> <li>• Assist PMU and TL/DTL for accumulating climate vulnerability data and information from various national and if possible from international sources;</li> <li>• Investigate the current status of the climate change, vulnerability and impacts over the study area and analyse in detail future climate change projection and scenario;</li> <li>• Make detailed investigation of the climate change impacts on the rural road subprojects and prepare the climate- resilient criteria to be incorporated in the designs by considering future climate change;</li> <li>• Review periodically and report on the impact of project activities on the environment and determine the nature and extent of environment impact, if caused by the Project;</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Assist in facilitating participatory planning and the implementation of the initial environment examination recommendations; their proposed construction technology, and project implementation plan to identify any potential adverse impact;</li> <li>• Identify budget needs to strengthen LGED capacity for adequate environmental monitoring and management of the project;</li> <li>• Assist TL/DTL in reviewing all infrastructure design (climate resilient structure), their proposed construction technology, and project implementation plan to identify any potential adverse environmental impacts and climate risks;</li> <li>• Advise and support LGED in building in-house capacity for the training of LGED staff to carry out initial environmental examination for its projects, awareness-building of and motivating stakeholders/beneficiaries on environmental issues;</li> <li>• Conduct compliance inspections to monitor EMP and prepare compliance progress toward the expected outcomes, verify monitoring information to identify adverse environmental impacts, document results, identify the necessary corrective actions, and reflect them in a corrective action plan;</li> <li>• Keep liaison with institutions responsible for climate change issues in Bangladesh to keep abreast on all information necessary for to assist team leader in planning and designing climate resilient infrastructure for the project;</li> <li>• Develop monitoring and guidance tools (e.g., self-monitoring reports) for climate resilient improvement and upgrading of the rural roads including climate resilient check list;</li> <li>• Prepare training materials and provide training to LGED engineers and stakeholders on environment and climate change, impacts and adaptation especially for climate resilient road maintenance;</li> <li>• Contribute to the training of LGED staff and contractors on implementation procedures and technical matters related to environment and climate change;</li> <li>• Provide inputs to developing a training course for the project as required;</li> <li>• Conduct at least 3 environmental inspections during the construction phase: (i) First report at pre construction stage, (ii) Second report after three months of start of construction or on completion of 25% construction, and (iii) Third report after seven months of start of construction or on completion of 75% of construction;</li> <li>• Prepare environmental field monitoring report, quarterly report, annual report, midterm report and project completion reports;</li> <li>• Support the TL/DTL in preparing the monthly, quarterly, annual, midterm and project completion reports;</li> <li>• Perform other duties as may be identified by the Project Director and TL/DTL.</li> </ul>
13.	Hydrologist	<ul style="list-style-type: none"> <li>• Develop baseline condition of hydrological features of the study area, establish the drainage pattern and catchments' boundaries;</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Review past and present morphological processes, i.e., erosion and deposition patterns, flow dynamics and sediment transport;</li> <li>• Analyze rainfall-runoff, tide, wave, drainage basin, river water levels, frequency analysis and establishment of design flood event of the project area;</li> <li>• Collect and analyze relevant hydrological data, in consultation with LGED design cell, and assess the requirement for additional cross-drainage capacity on project roads in order to maintain natural drainage;</li> <li>• Based on analysis of hydrological data, assist the Senior Design Engineer in establishing technical design criteria for roads and bridges especially in embankment design, protection measures, and cross drainage capacity;</li> <li>• Establish potential areas for erosion of all road alignments in riverine and wetland areas, and assist in roadside plantation and turfing program under the project;</li> <li>• Review climate change scenario and available reports on climate change and work with Environment cum Climate Change Specialist in assessment of potential impacts of climate change and sea level rise;</li> <li>• Recommend options for improving design criteria of the rural infrastructures (roads, embankments, bridges, culverts, etc.) related to hydro-morphological analysis considering climate change scenarios;</li> <li>• Provide support to the design engineers to come up with an improved climate resilient rural infrastructure design;</li> <li>• Prepare relevant reports on the hydrological and morphological areas;</li> <li>• Assist PMU and TL/DTL in preparing the monthly, quarterly, annual, and mid-term progress reports, and project completion report;</li> <li>• Perform any other project related work, as may be advised by the Project Director and TL/DTL.</li> </ul>
14.	<b>Training Specialist</b>	<ul style="list-style-type: none"> <li>• Develop training programs for LGED staff and other stakeholders in technical and non-technical areas to improve levels of competence and build a more community oriented and gender sensitive approaches for climate change adaptation and road safety, and apply a participatory approach in performing their duties and responsibilities;</li> <li>• Co-ordinate with different training institute, individual trainers, agencies of GoB and facilitate in arranging training programs including in the logistics</li> <li>• Advise and coordinate with relevant experts in the design and implementation of basic training programs and orientation curriculum employing participatory approaches; compile handbooks and manuals for various courses in line with the project objectives;</li> <li>• Ensure that poverty, social development and gender as well as environmental issues are integrated in formal training programs and courses where related;</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Assist in Training Needs Assessment: (TNA) of the representatives and officials of the various stakeholders, arrange formal training programs at various levels in collaboration with relevant team members;</li> <li>• Coordinate the training of PMU, LGED staff (district and <i>upazila</i> levels) and stakeholders on project implementation procedures, technical, environmental and climate change matters;</li> <li>• Coordinate formal training activities for LGED staff (district and <i>upazila</i> levels) at the relevant venue and ensure implementation and monitoring of the training activities;</li> <li>• Supervise and monitor district- and <i>upazila</i>-level training programs.</li> <li>• Prepare an annual training plan and budget and integrate the same into the overall annual plan of the project;</li> <li>• Act as resource person/facilitator in formal training courses and work as a trainer in training of trainers (TOT).</li> <li>• Prepare training program, materials or modules;</li> <li>• Collect and compile training related data/information;</li> <li>• Evaluate the effectiveness and assess impact of training programs with gender and environment perspectives;</li> <li>• Prepare the monthly, quarterly, annual, and mid-term training reports at different time to time and final report at the end of the project;</li> <li>• Assist PMU and TL on all matters related to training activities.</li> </ul>
<b>III. Non-Key National Experts</b>		
1.	Field Supervising Engineer	<ul style="list-style-type: none"> <li>• Assist in preparing the annual district improvement and upgrading program for civil works;</li> <li>• Assist in monitoring the progress of individual contracts and in taking remedial measures as required;</li> <li>• Assist in undertaking, guiding, checking and supervising detailed engineering (topographical, detailed road condition survey, traffic survey), social, environmental and economic survey;</li> <li>• Advise on determining contract package appropriate to contractors;</li> <li>• If required, assist in expediting land acquisition/land donation procedures;</li> <li>• Monitor on-site material and equipment storage and storage and handling procedures, and environmental practices, and advise on remedial measures if necessary;</li> <li>• Ensure the implementation of the EMP;</li> <li>• Assist site supervision of all improvement and upgrading works to ensure that design standards and technical specifications are achieved, including use of appropriate construction methods, on-site in the quality control, and proper checking and measurement of quantities and advise on remedial actions as required;</li> <li>• Jointly measure and check with LGED office all works presented for payment, jointly approve the quantity and quality of all improvement and upgrading works;</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Contribute to the training of LGED district and <i>upazila</i> staff, and of contractors in on-site supervision procedures, construction methods and contract management;</li> <li>• Identify any issues related to laboratory testing which should be addressed by the Resident cum Quality Control Engineer;</li> <li>• Closely work under the instructions of Resident cum Quality Control Engineer;</li> <li>• Regularly and promptly report to the Resident cum Quality Control Engineer;</li> <li>• Periodically inspect quality control tests of materials and works;</li> <li>• Monitor if any grievances have been registered by the beneficiaries;</li> <li>• Inform and suggest promptly any relevant information from the field which will improve the implementation of the project;</li> <li>• Report regularly to the PMU and TL/DTL and Resident cum Quality Control Engineer on progress and performance of civil works, and identify any critical issues which require attention;</li> <li>• Perform any other relevant assignments given by the Project Director and TL/DTL.</li> </ul>
2.	Junior Engineer	<ul style="list-style-type: none"> <li>• Assist in preparing the annual district improvement and upgrading program for civil works;</li> <li>• Assist in monitoring the progress of individual contracts and in taking remedial measures as required;</li> <li>• Assist in undertaking, guiding, checking and supervising detailed engineering (topographical, detail road condition survey, traffic survey), social, environmental and economic surveys;</li> <li>• Advise on determining contract packages appropriate to contractors;</li> <li>• If required, assist in expediting land acquisition/land donation procedures;</li> <li>• Maintain a permanent record of all measurements for the works /quantities to be paid for and payment dates.</li> <li>• Assist the PMU/TL in planning, coordinating and monitoring of project implementation, including preparation of the annual plans of operations and detailed budgets for all project activities.</li> <li>• Undertake transect walk and prepare subproject-wise Detailed Project Report (DPR) if required on a particular road, with the assistance of consultant team members and field-level LGED officials. Thereafter, submit these DPRs to the TL for submission to the Project Director, for approval of the ADB;</li> <li>• Ensure the implementation of the EMP;</li> <li>• Assist site supervision of all improvement and upgrading works to ensure that design standards and technical specifications are achieved, including use of appropriate construction methods, on-site quality control, and proper checking and measurement of quantities, and advise on remedial actions as required;</li> <li>• Review of detailed engineering designs and bills of quantities, produced by others, and evaluation of tenders, for civil works;</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Jointly measure and check with LGED office all works presented for payment; jointly approve the quantity and quality of all improvement and upgrading works;</li> <li>• Contribute to the training of LGED district and <i>upazila</i> staff, and contractors in on-site supervision procedures, construction methods and contract management;</li> <li>• Identify any issues related to laboratory testing which should be addressed by the Resident cum Quality Control Engineer;</li> <li>• Monitor if any grievances have been registered by the beneficiaries;</li> <li>• Inform and suggest promptly any relevant information from the field which will improve the implementation of the project;</li> <li>• Report regularly to the PMU and TL/ on progress and performance of civil works, and identify any critical issues which require attention;</li> <li>• Assist with any other duties as may be reasonably assigned by the Project Director.</li> </ul>
3.	Training Coordinator	<ul style="list-style-type: none"> <li>• Advise and coordinate with relevant experts in the design and implementation of basic training programs and orientation curriculum employing participatory approaches; compile handbooks and manuals for various courses in line with the project objectives;</li> <li>• Ensure that poverty, social development and gender as well as environmental issues are integrated in formal training programs and courses where related;</li> <li>• Assist in Training Needs Assessment: (TNA) of the representatives and officials of the various stakeholders, arrange formal training programs at various levels in collaboration with relevant team members;</li> <li>• Coordinate the training of PMU, LGED staff (district and <i>upazila</i> levels) and stakeholders on project implementation procedures, technical, environmental and climate change matters;</li> <li>• Coordinate formal training activities for LGED staff (district and <i>upazila</i> levels) at the relevant venue and ensure implementation and monitoring of the training activities;</li> <li>• Supervise and monitor district- and <i>upazila</i>-level training programs.</li> <li>• Prepare an annual training plan and budget and integrate the same into the overall annual plan of the project;</li> <li>• Prepare training programme, materials or modules;</li> <li>• Collect and compile training related data/information;</li> <li>• Evaluate the effectiveness and assess impact of training programs with gender and environment perspectives;</li> <li>• Assist to prepare the monthly, quarterly, annual, and mid-term training reports as required and the final report at the end of the project;</li> <li>• Assist PMU and TL on all matters related to training activities.</li> </ul>
4.	Estimator	<ul style="list-style-type: none"> <li>• Assist in preparing the annual district improvement program for civil works;</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Assist in monitoring the progress of individual contracts and in taking remedial measures as required;</li> <li>• Assist in undertaking, guiding, checking and supervising detailed engineering (topographical, detail road condition survey, traffic survey), social, environmental and economic surveys;</li> <li>• Advise on determining contract package appropriate to contractors;</li> <li>• If required, assist in expediting land acquisition/land donation procedures;</li> <li>• Maintain a permanent record of all measurements for the works /quantities to be paid for and payment dates.</li> <li>• Assist the PMU/TL in planning, coordinating and monitoring of project implementation, including preparation of the annual plans of Operations and detailed budgets for all project activities.</li> <li>• Undertake transect walk and prepare subproject-wise Detailed Project Reports (DPRs) if required on a particular road, with the assistance of consultant team members and field level LGED officials. Thereafter, submit these DPRs to the TL for submission to the Project Director, for approval of ADB</li> <li>• Ensure the implementation of the EMP;</li> <li>• Assist site supervision of all improvement works to ensure that design standards and technical specifications are achieved, including use of appropriate construction methods, on-site quality control, and proper checking, and measurement of quantities, and advise on remedial actions as required;</li> <li>• Review and check cost estimate, bills of quantities, produced by others, and evaluation of tenders, for civil works;</li> <li>• Jointly measure and check with LGED office all works presented for payment; jointly approve the quantity and quality of all improvement works;</li> <li>• Contribute to the training of LGED district and <i>upazila</i> staff, and contractors in on-site supervision procedures, construction methods and contract management;</li> <li>• Identify any issues related to laboratory testing which should be addressed by the Resident-cum-Quality Control Engineer;</li> <li>• Monitor if any grievances have been registered by the beneficiaries;</li> <li>• Inform and suggest promptly any relevant information from the field which will improve the implementation of the project;</li> <li>• Report regularly to the PMU and TL/ on progress and performance of civil works, and identify any critical issues which require attention;</li> <li>• Assist with any other duties as may be reasonably assigned by the Project Director.</li> </ul>
5.	CADD Operator	Assist PMU and TL on all matters relating to computer- aided designs and outputs.
6.	MIS Manager	<ul style="list-style-type: none"> <li>• Monitor and assist the PMU in using all the apps and softwares which will be used under this project;</li> </ul>

Sl. No.	Position	Tasks/Responsibilities
		<ul style="list-style-type: none"> <li>• Identify core information needs;</li> <li>• Develop monitoring framework for project outputs and outcome indicators;</li> <li>• Prepare a program monitoring and evaluation system assessment according to the ADB standard format;</li> <li>• Determine appropriate mechanisms/systems for independent verification of DMF indicators;</li> <li>• Seek to determine whether a system is in place for adequately monitoring and evaluating progress on results including DMF indicators;</li> <li>• Assist the Team leader in day-to-day operation of the project.</li> </ul>
7.	Media Officer	<ul style="list-style-type: none"> <li>• Assist the PMU to manage the public awareness campaign and implement related activities, and prepare printed and audio-visual materials regarding the project and its components;</li> <li>• Prepare publishable reports on different development activities/inputs/outputs/outcome of the project as well as LGED;</li> <li>• Assist PMU and TL on all matters related to media and awareness activities.</li> </ul>

### K. Counterpart Support

29. All officials under the PMU will be the key government counterpart officials. Aside from the PMU staff, existing staff of LGED at Headquarter, Division, Region, District, and Sub-district levels will also work as counterpart staff.

30. Both the counterpart government officials at PMU and PIUs and regular LGED set-up will provide all kinds of assistance to the consultant team in rendering their services.

31. LGED will provide the consultants with suitable office space only. LGED will provide project data and reports available to the consultant.

32. Office furniture, hardware and software, lighting, electricity including consumption bills, air conditioning, communication and other consumables will be at the cost of the consultant.

33. Any non-consumable items purchased under this consultancy package shall be handed over to LGED after completion of the contract.

34. The Consultant will propose support staff (Accountant, Manager, office maintenance personnel) in its proposal for PMU and PIUs.



## Attachment C: Outline Terms of Reference for Capacity Development Technical Assistance for System-Based Road Master Planning

### A. Background

1. Bangladesh is predominantly rural. About 80% of its population live in rural areas. The rural economy, through farm and non-farm sectors, substantially contributes to the national economy. In this backdrop, majority of the country's population depend on the rural economy which in turn depends on an improved rural transportation system, especially the land transportation system.

2. Bangladesh has an extensive road network wherein the main and medium road networks constitute national highways, regional highways and the *zila* roads. A huge rural transportation network connects the rural hinterlands to the national transportation network. However, a good length of the rural roads is still unimproved, but has the highest road density amongst the developing countries in Asia. These roads immensely serve the rural Bangladesh. They provide access to farms, social and welfare institutions, and rural facilities as well as to markets, to modern agriculture inputs, to local places of employment and so on. In the road transportation system of the country, the Local Government Engineering Department (LGED) is responsible for three out of six road categories (*upazila* road, union road and village road).

**Table 1: Categories of Roads in Bangladesh  
and Responsible Authority Per Road Category**

Road Category	Definition	Responsible authority
National Highway	Highways connecting National capital with Divisional HQs or seaports or land ports or Asian Highway	RHD
Regional Highway	Highways connecting District HQs or main river or land ports or with each other not connected by National Highways	RHD
<i>Zila</i> (District) Road	Roads connecting District HQs with <i>Upazila</i> HQs or connecting one <i>Upazila</i> HQ to another <i>Upazila</i> HQ by a single main connection with National/ Regional Highway, through shortest distance/route	RHD
<i>Upazila</i> (Sub-district) Road	Roads connecting <i>Upazila</i> HQs with Growth Centres or one Growth Centre with another Growth Centre by a single main connection or connecting Growth Centre to Higher Road System, through shortest distance/route	LGED & LGIs
Union Road	Roads connecting Union HQ/s with <i>Upazila</i> HQs, growth centres or local markets or with each other	LGED and LGIs
Village Road (Type A and B)	Type A: Roads connecting Villages with Union HQs, local markets, farms and ghats or with each other Type B: Roads within a Village	LGED and LGIs

LGED = Local Government Engineering Department, LGIs = Local Government Institutions, RHD = Roads and Highways Department.

3. The categorization of roads as shown in the above table helped LGED to prioritize its investment and connect the growth centers, markets as well as local administrative offices. It has been the primary basis of prioritization of rural roads since 1990s. On this basis of prioritization, over the years and through LGED's commitment and financial assistance from the government and development partners, Bangladesh has witnessed a rapid growth in setting up paved rural roads.

4. Presently, 80% of the *upazila* roads, 57% of the union roads, and 16% of the village roads have been paved. *Upazila* roads were given first priority and union roads were given second priority. Besides this, a good length of village roads has been developed connecting farms, schools, industrial centers and villages. To prioritize among a number of *upazila* and union roads, foreign-aided projects opted for detailed feasibility studies and calculation of Economic Internal Rate of Return (EIRR). But in case of government-funded projects, selection of roads from a large number of candidate roads is not undertaken through a rational selection process.

5. As the government is spending more resources on rural roads from its own budget, it has become important to develop a rational and easy-to-use prioritization system that would boost further growth of the rural economy. LGED's past mission with rural road development was to provide rural access. Rural access has resulted in increased agricultural production employment rate, quality education and access to health, and decrease in poverty. Rural roads served as the main catalyst of rural economic growth during the last decade. With the boost in rural economy and the considerable growth in industries, Bangladesh has become a lower middle income country in 2015.

6. At its 7<sup>th</sup> Five Year Plan (FYP) for 2016–2020, Bangladesh aspires to achieve 8% economic growth by 2020. To support the growth, significant contribution is being expected from the rural areas, from farm and non-farm sectors. In addition, the government is determined to improve the quality of lives of rural people by connecting the villages, markets, educational institutes and health facilities, etc. Therefore, the strategy for rural infrastructure in the 7<sup>th</sup> FYP comprises the following:

- upgrading of rural roads;
- gradual improvement of rural roads; and
- development of a smart tool for prioritization.

7. In the 7<sup>th</sup> FYP, prioritization of roads has been given due importance as improvement of prioritized roads is deemed to create more synergies, working as a catalyst of further growth.

8. To develop a smart tool for prioritization, LGED did a research in collaboration with the Urban and Regional Planning Department (URP Department) of Bangladesh University of Engineering and Technology (BUET).

#### **DFID-financed ReCAP project for Prioritization (pilot research)**

9. As the usual practice of prioritization involves extensive data collection and feasibility study, it is time-consuming and involves a huge cost.

10. LGED has been using a road database (Road and Structure Database Management Software-RSDMS) since 1996. The road database contains road and structure development and maintenance data as well as data on social infrastructures along the road.

11. Using the experience of RSDMS, LGED was interested to develop a software that would give an easy tool for road prioritization. A team of experts from URP Department-BUET worked on the research. A pilot district “Tangail” was selected for the study. LGED formed a working group to guide the BUET team to ensure that the research output would be useful and effective. The objectives of the research were as follows:

- examine existing prioritization methods in Bangladesh and other similar countries and determine whether they provide optimal solutions for rural roads;
- develop a prioritization method, software and user manual for Bangladesh and test in a region for gaining full confidence; and
- train 15 professionals in the use of the planning and prioritization tool.

12. The outputs of the research were as follows:

- a well agreed prioritization methodology;
- a developed software; and
- training of selected LGED officers to use the software.

13. The steps to get the output of the research were:

- road data, traffic data and social infrastructure data collection for each *upazila* of Tangail district (new data and updating of RSDMS data);
- research for prioritization methodology;
- stakeholder workshop at LGED Head Quarters for consensus on the developed methodology;
- development of a prioritized network at each *upazila* of Tangail district (using draft software data and GIS);
- stakeholder workshop at each *upazila* for consensus on the prioritized/core network;
- presentation of final software; and
- training of selected LGED officers.

14. During the research, a stakeholder workshop was held with participation of parliament members, *upazila* chairmen, union *parisad* chairmen and members, and government officers from different offices of the district and *upazilas* of Tangail. The findings of the stakeholder workshop were used to refine the prioritization methodology. The stakeholders urged to hold a stakeholder workshop at every *upazila* before finalization of prioritized network of each *upazila*. Therefore, BUET team revised their methodology and conducted stakeholder workshops at each *upazila* to involve the public representatives and other stakeholders in the prioritization plan based on the database.

### **Limitation of the developed software**

15. The developed software is not well linked with GIS data. It can produce prioritization score or EIRR of the roads but can not provide visual illustration in maps. The visual illustration in maps along with GIS data (all physical infrastructure features such as markets, schools, etc.) will give more explanation regarding the priority of a road over another. It will eventually develop consensus among the stakeholders (members of parliament, *upazila* chairmen, union parishad chairmen, public) regarding the master plan. The present database has the following weaknesses:

- The physical infrastructure features are not geo-referenced. Therefore, they cannot dynamically be illustrated.
- The road alignments are not properly geo-positioned.

16. Therefore, at the stage of nationwide upscaling of the prioritization by using the application, it is deemed important to overcome the limitations and include necessary arrangements in the proposed assignment.

## **B. The Objectives of the Assignment**

17. The overall objective of this assignment is to develop a participatory approach to developing a comprehensive rural road master plan by using a system-based prioritization application. It will provide *upazila*-wise prioritized core road network with GIS representation which will be used for gradual upgradation or improvement of rural roads.

18. The specific objectives of the assignment are:

- develop a system to utilize the available resources for rural roads effectively so that the improved road network will work for further growth of farm and non-farm economy in rural areas;
- develop a system to utilize the available resources for rural roads effectively for sustainability of the developed network; and
- develop a system for planned growth and development of villages, unions and *upazilas* in the country.

19. To achieve the objectives, the steps of the assignment will be:

- development of a comprehensive road database (including geo-reference data) for using *upazila*-wise prioritization road network;
- modification of the existing road prioritization system (developed by BUET) into web GIS application aspect;
- enhancement of existing app for GPS survey of road and socio-economic infrastructures;
- modification of existing RSDMS to collect socio-economic infrastructure information, and integration with developed app;
- conduct survey of all roads and socio-economic features using the developed mobile app;
- integration of road database with the modified web GIS prioritization application;
- preparation of *upazila*-wise draft prioritization map using a web GIS application for consulting with local stakeholders;
- organization of participatory stakeholder workshops for preparing core network of rural roads; and
- finalization of *upazila*-wise core road network and prioritization of different categories of roads.

20. **Period of Assignment:** The assignment will be for 36 months.

## **C. Component Management**

21. As this is a nationwide assignment, a separate management unit is to be established in GIS Section of LGED under the Superintending Engineer (ICT). Section in charge (GIS) and two Assistant Engineers will be deputed to run the component smoothly. Technical suggestions of Planning Unit and Maintenance Unit of LGED will be taken to implement the component successfully. To execute the entire component, a consultancy service will be procured. The firm will work with direct guidance and supervision of GIS section of LGED. For the development and modification of various apps as well as other sub-components under this assignment, the firm needs to ensure day to day close interaction with GIS section. All deliverables must be accepted

with prior approval of GIS section of LGED. The consulting firm will comprise a group of key and non-key professionals. Among the key professionals, IT and GIS professionals have to work physically in GIS Section of LGED. The key professionals are listed as follows:

Name of Individual Consultants	Number	Man-Months	Job Responsibilities
Team Leader	01	18	Work as team leader to provide technical advice, planning and supervisory for the assignment
Deputy Team Leader	01	36	Work as project manager to system development, integration coordination of different components and overall management the assignment
GIS Programmer	01	24	Will be responsible for managing the development and operation of dynamic GIS application of road prioritization system
Web Programmer	01	12	Upgrade the existing Road and Structure Database Management System
GIS Specialist	01	12	Organize and analyze the all geo-referenced surveyed data to input in Web GIS road prioritization System
GIS Analyst	06	72	Will work to develop GIS based geo-referenced Prioritized Road Network at each <i>upazila</i>
Divisional Coordinator/ Stakeholder Communication Expert	08	96	Monitor data collection by enumerators and surveyors, and hold stakeholder meetings at each <i>upazila</i>
Economist/ Master Plan Coordinator	01	06	Develop financial plan for each Upazila for the road improvement. S/he will also coordinate preparation of Master Plan for each <i>upazila</i>
Training Coordinator	01	06	Organize and coordinate of all training and workshop

#### D. Outputs

22. The assignment will provide the following outputs:

- an updated road database containing detailed information on each road including traffic data as well as socio-economic information;
- an extensive Road Prioritization GIS application that will provide *upazila*-wise prioritization list of core road network for development or maintenance; and
- dynamic GIS map representation of prioritized road network.

**E. Methodological Steps of the Assignment**

Sl. No	Task	Details of Task	Manpower/software/equipment requirement
01	<b>Modification of existing RSDMS</b> for collecting socio-economic infrastructures information and traffic survey	<ul style="list-style-type: none"> <li>- New fields (i.e. unique ID, category of socio-economic infrastructures, distance from road, structural condition of the infrastructures etc.) will be included to collect data from field</li> <li>- Integration of RSDMS with road GPS survey app</li> </ul>	<ul style="list-style-type: none"> <li>- Web Programmer</li> </ul>
02	<b>Enhancement of existing app</b> for GPS survey of road and socio-economic infrastructures	<ul style="list-style-type: none"> <li>- Development of an online/offline app to collect the GPS information of roads and socio-economic infrastructure from field by using mobile devices (smart phone or tab)</li> <li>- Establishment of a data server system to store the information and synchronize the mobile devices when it will be online</li> </ul>	<ul style="list-style-type: none"> <li>- By involving a group of non key professionals (System Analyst, Sr. Programmer, Web Application Developer, App Developer, Assistant Programmer etc.)</li> </ul>
03	<b>Modification of web GIS application</b> , based on existing road prioritization system (developed by BUET) and <b>Integration with road database</b>	<ul style="list-style-type: none"> <li>- Analysis of the existing road prioritization system</li> <li>- Development of a web-based GIS application on the existing road prioritization system to visualize country/division/region/district/<i>upazila</i> a wise geo-referenced prioritized road network</li> <li>- Integration of RSDMS database with web GIS application</li> </ul>	<ul style="list-style-type: none"> <li>- By involving a group of non key professional (System Analyst, Sr. Programmer, Web Application Developer, Web Map Developer, Assistant Programmer, UI Designer, QA Expert etc.)</li> <li>- Purchasing ArcGIS Server Enterprise (web application software)</li> </ul>
04	Development of a comprehensive database by conducting surveys at each <i>upazila</i>	<ul style="list-style-type: none"> <li>- Training for enumerators &amp; surveyors (6410), data entry operators (492) and region/district/<i>upazila</i> staff (14+64+492=570)</li> <li>- Data collection and data input in database [Enumerator will perform traffic survey (UZR, UNR and Imp. VR); Surveyors will perform GPS survey of all roads and socio-economic infrastructures; and Data entry operator will input the data in RSDMS]</li> <li>- <i>Upazila</i> staff will guide data collection and data entry</li> <li>- Validation of data entry by <i>Upazila</i> office and District coordinator.</li> </ul>	<ul style="list-style-type: none"> <li>- 250 trainings (each batch contains 30 participants)</li> <li>- Enumerators and surveyors (total 195000 man-days or 6500 man-months); data entry operator (492 man-months)</li> <li>- Divisional coordinator (8@12=96 man-months)</li> <li>- Logistic support of <i>upazila</i> (492 <i>upazila</i>)</li> <li>- GPS-enabled smart phone</li> </ul>

Sl. No	Task	Details of Task	Manpower/software/equipment requirement
		Divisional coordinator will coordinate the data collection and workshop program.	
05	<b>Preparation of upazila-wise draft prioritization map</b> by using developed web GIS prioritization system for consulting with local stakeholder	<ul style="list-style-type: none"> <li>- Collected field data will be synchronized with road database and web GIS application</li> <li>- Prioritized draft map will be prepared for each Upazila based on road prioritization system</li> <li>- Upazila wise prioritized map will be printed for stakeholder consultation</li> </ul>	<ul style="list-style-type: none"> <li>- GIS programmer (1 no. for 24 months) and GIS Analyst (6 nos. for 12 months)</li> </ul>
06	<b>Organize participatory stakeholder workshop</b> for preparing core network of rural road	<ul style="list-style-type: none"> <li>- Discussion with local stakeholders in participatory approach with the printed map to fix up core rural road network for each Upazila</li> </ul>	-Workshops (492 Upazila, 64 Districts, 14 Regions, 2 Dhaka= total 572)
07	<b>Finalization of development of rural core road network</b>	<ul style="list-style-type: none"> <li>- Modification of <i>upazila</i>-wise core road network based on participatory workshop feedback</li> <li>- GIS visualization of settled core rural road network with web GIS road prioritization application</li> <li>- Preparation of book on <i>upazila</i>-wise rural core road network based on the output of road prioritization application</li> </ul>	<ul style="list-style-type: none"> <li>- Economist/ Financial Analyst / Master Plan Coordinator (1 no. for 6 months)</li> <li>- Printing the book</li> </ul>

GIS = geographic information system, RSDMS = Road and Structure Database Management Software, UNR = union road, UZR = *upazila* road, VR = village road.

## F. Work Distribution and Team Composition

Sl. No.	Position	Person-Months	Qualification
1.	Team Leader	18	At least with a master's degree in computer science or equivalent degree with at least 15 years' professional hands-on technical experience in IT field, of which at least 8 years in lead position with evidences, particularly on major IT/ICT/GIS application development, implementation and integration of various medium and large projects that are successfully commissioned and running locally and/or abroad. S/he will provide technical advice, planning and supervisory input and team leadership for the entire project period.

Sl. No.	Position	Person-Months	Qualification
2.	Deputy Team Leader (1 no.)	36	At least with a master's degree in computer science or equivalent with minimum 12 years' experience working in IT or Project management field. He/she shall have at least 8 years project management experience, particularly in major business computerization assignments and IT/ICT/GIS development and system integration projects. Extensive experience in providing project management support to large organizations in the planning and implementation of modern IT and ICT architecture, facilities, systems and resources, preferably also in public sector contexts.
3.	Divisional Data Coordinator (8 nos.)	96	Minimum master's degree preferably in science or management. He/she shall have at least 12 years of overall experience, with 8 years' relevant experience in data management/coordination field. He/she will monitor data collection by enumerators, and organize stakeholder meetings at each <i>Upazila</i> .
4.	GIS Programmer (1 no.)	24	At least a bachelor's degree in computer science, specializing in programing, with certificates of technical and practical competence from recognized institutions. The GIS Programmer shall have at least 10 years' overall experience, with 6 years relevant experience in web GIS application. He/she shall have the ability to perform web GIS application development using programming languages such as JavaScript, HTML5, CSS, AJAX, Python or .NET for the Esri ArcGIS platform.
5.	GIS Specialist (1 no.)	12	Minimum master's degree in science preferably in GIS, systems programming, with certificates of technical and practical competence from reputable organizations. The GIS Specialist will have more than 10 years' overall experience, with 8 years' relevant experience to analyze spatial and non-spatial information on GIS environment.
6.	GIS Analyst (6 nos.)	72	At least a bachelor's degree in science preferably in GIS or Urban Planning, with certificates of technical and practical GIS competence from reputable organizations. He/she will have at least 8 years' overall experience, out of which 6 years in GIS software expertise, data collection, geospatial analyses, production of maps and cartographic display.
7.	Web Programmer (1 no.)	12	Minimum bachelor's degree in computer science or equivalent. Proposed personnel should have at least 10 years' working experience in IT field with minimum 6 years' experience in web application field.



Sl. No.	Position	Person-Months	Qualification
8.	Economist/ Financial Analyst (1 no.)	6	Minimum master's degree in economics/finance or equivalent with at least 12 years' overall experience, of which 6 years are in the field of economics or financial analyses. He/she will prepare prioritized road development plan for each <i>upazila</i> .
9.	Training Coordinator (1 no.)	6	Minimum master's degree in science or equivalent with at least 12 years' overall experience, of which 6 years are in a relevant field. He/she will coordinate to organize training for the enumerators.

## **Attachment D: Outline Terms of Reference for Transaction Technical Assistance (TA) Consultant**

### **A. Objective**

1. The main objective of the consulting services is to support LGED in improving sector management performance by implementing institutional development initiatives in the fields which need to be supplemented with international expertise. The TA will focus on:

- (i) Road asset management (including performance-based maintenance)
- (ii) Road Safety
- (iii) Climate resilient design and construction.

### **B. Scope of Services**

2. The consultants will undertake the services in close consultation with the Project Director RCIP. They will conduct training and workshops as required. Organizing and conducting study cum training tours to neighboring countries for exposure to concerned engineers and officials regarding practices being followed for asset management and road safety. Sector-wide consultations will be conducted to disseminate the concepts of the sector development initiative.

3. For a long-term framework, splitting the functions of road development policy and programming from project implementation is often effective. This will ensure efficient decision making for project implementation and help build up expertise in outsourcing of specialized tasks.

4. The consultant will be expected to undertake the following tasks:

- (i) recommend an appropriate institutional structure for managing road asset management including performance-based maintenance, road safety for the overall rural road network and climate resilient design and construction;
- (ii) recommend appropriate management structures for managing each layer of the rural road network for road asset management, road safety and climate resilient design and construction;
- (iii) provide training to LGED staff at various levels to incorporate road asset management and safety and effects of climate change;
- (iv) organize and conduct study cum training tours to neighboring countries for exposure to concerned engineers and officials regarding practices being followed for asset management and road safety and incorporation of the same in the country specific systems;
- (v) develop knowledge products; and
- (vi) partner with centers of excellence in climate resilience infrastructure in general and road development in particular.

#### **1. Institutional Framework**

5. The main task of the consultants is to seek agreement from various levels of rural road functionaries involved on how rural roads are to be administered for road asset management, road safety and climate-resilient design and construction. They will be expected to examine the

good practices being followed in other countries<sup>1</sup> and feasibility of the lessons learned being adopted for effective rural road management.

6. **Implementation Arrangements.** As per the implementation arrangements agreed for the RCIP, there will be 5 Divisions to provide close technical support and supervision on (i) planning, preparation, implementation, and quality management of physical works, and (ii) compliance with ADB's safeguard requirements in 34 project districts. Accordingly, the Consultants will work closely with the 5 Divisions and address, develop and train LGED staff on (i) road asset management to include the performance based maintenance of pavement, laying down priorities for the roads to be maintained and the funds required thereof on annual basis after completion of construction or completion of 5 years maintenance period for the pilot packages pertaining to RCIP 1 (ii) applying the road safety measures at the time of planning, construction and maintenance, and in conducting road safety audits, (iii) climate-resilient design and construction. One of the key outputs is the development of "re-entry" plans detailing how lessons from the capacity building will be adopted in LGED operations. District-specific plans will be prepared and presented to LGED management for possible implementation and funding.

## 2. Management Structures

7. The institutional analysis should determine how each part of the rural road network is to be managed. The task is to recommend appropriate organization and management structures for LGED for the purpose of road asset management, road safety issues and measures to ensure zero percentage in road accidents attributable to the road as such and extra measures to mitigate the climate change affects where applicable.

8. The consultants will be expected to undertake the following tasks:

- (i) The consultants will recommend an appropriate organization and management structure for LGED to incorporate (a) an ongoing rural road asset management system and prepare a manual for the same, (b) road safety measures, and (c) requirements for climate resilient design and construction;
- (ii) The consultants will establish manuals to include inspection reports for maintenance, annual maintenance audit report, do's and don'ts for maintenance of pavements especially pertaining to shoulders and drainage. They will introduce internationally proven systems for road safety.
- (iii) The consultants will provide ADB with progress reports on the institutional strengthening action plan, including achievements, problems, and policy recommendations. They will prepare specific reports in accordance with the terms of reference. Upon completion of their services, the consultants will prepare a draft final report covering all tasks and a final report 30 days after the tripartite review meeting with LGED, ADB, and the consultants.
- (iv) The consultants, in consultation with LGED, will prepare and conduct a training program including organizing a study tour to neighboring countries in the areas specified in their terms of reference, including selection criteria for candidates, training objectives, and cost estimates.

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<sup>1</sup> The rural roads in India are administered by the Ministry of Rural Development (MoRD) through National Rural Roads Agency (NRRDA) as the EA and State Rural Road Agency (SRRDA) at the State level as the IA.

**C. Composition of Team and General Qualifications of Key Personnel****1. Team Leader Cum Road Asset Management Specialist (international)**

1	Educational Qualification	Graduate in Civil Engineering from a recognized university/institution
2	Experience	
	a) Total professional Experience	Minimum 20 years
	b) Experience in Road projects	Minimum 15 years in maintenance of road including performance-based pavement maintenance.
	c) Experience in similar capacity	Coordinating the tasks of other consultants and submitting consolidated reports. Rural Roads planning and designing preferably for externally aided projects such as WB / ADB / USAID, etc.

**2. Road Safety Expert (international)**

1	Education Qualification Minimum	Graduate in Civil Engineering
2	Experience	
	a) Total professional Experience	Minimum 10 years
	b) Experience in Highway projects	Minimum 7 years of experience in pavement design/construction and at least 1 year experience in road safety.
	c) Experience in Similar capacity	Rural Roads planning and designing preferably for externally aided projects such as WB, ADB, USAID etc.

**3. Climate Resilient Design and Construction Specialist (international)**

1	Education Qualification Minimum	Graduate Engineer with specialization in Environmental Engineering / MSc in Environmental Science
2	Essential Experience	
	a) Total professional Experience	Minimum 5 years' experience in either assessing, reviewing, and designing climate resilient roads with direct participation on any multilateral or international assisted climate resilience and transport project in Bangladesh
	b) Experience in Similar capacity	Environmental specialist in at least one road project preferably externally aided projects such as WB, ADB, USAID etc.

**D. Staffing in Person-Months**

<b>No.</b>	<b>Position/Source</b>	<b>Person – Months</b>
1	Team Leader Cum Road asset management Specialist (international)	9
2	Road Safety Specialist (international)	4
3	Climate Resilient Design and Construction Specialist (international)	4
4*	Road Asset Management Engineer (national)	9
5*	Road Safety Engineer (national)	4
6*	Environment (Climate Change) Specialist (national)	4
	<b>Total Person – Months</b>	<b>34</b>

Note: National engineers and environment specialist will be understudy to the respective International consultants as part of transfer of skills.

**Attachment E: Gender Action Plan Reporting Template**  
**(Quarter/Year)**

**Project Title:**  
**Country:**  
**Project No:**  
**Type of Project:**      Loan  
**Approval and Timeline:**  
**Gender Category:**    EGM  
**Mission Leader:**  
**Project Impact:**  
**Project Outcome:**

**GENDER ACTION PLAN PROGRESS STATUS**

<b>Activity/Measures, Indicators/Targets and Responsibility(Timing)</b>	<b>Progress to Date</b> (This should include information on period of actual implementation, sex-disaggregated qualitative and quantitative updates (e.g. number of participating women, women beneficiaries of services, etc.)	<b>Issues and Challenges</b> (Please include reasons why as activity was not fully implemented, of if target fall short, or reasons for delay, etc.)
<b>Component/Output 1:</b>		
Activity: Indicator/Target: Responsibility:		
<b>Component/Output 2:</b>		
Activity: Indicator/Target: Responsibility:		
<b>Component/Output 3:</b>		
Activity: Indicator/Target: Responsibility:		

## Attachment F: Road List for Rural Connectivity Improvement Project

Sl. No.	Name of District	Name of Upazila	Name of Schemes	Road Code	Effective Length found from DPR (km)	Total Cost (BDT)	Total Cost in USD (M)
1	2	3	4	5	6	7	8
1	Gopalganj	Maksudpur	Tengrakhola-Jalirpar G.C Road	335582001	9.000	95,376,413.31	1.15
2	Gopalganj	Kasiani	Tilchara-Orakandi Road	335432014	3.000	41,812,663.67	0.50
3	Gopalganj	Sadar	Boultali GC - Nizra UPC Road	335323011	6.153	85,317,376.50	1.03
4	Gopalganj	Tungipara	Bashabaria GC-Jhanjhan-Ghagor GC Road.	335912004	9.935	97,806,108.69	1.18
5	Gopalganj	Kotalipara	Kadambari-Kaligonj-Gandiasur GC Road	335512007	6.256	60,956,024.59	0.73
6	Gopalganj	Gopalgonj-S	Kajulia UPC - Domrasur Hat Road.	335323007	9.800	125,965,286.49	1.52
7	Gopalganj	Gopalgonj-S	Gohala Hat (RHD)- Nizamkandi UPC Road (Sadar Partion)	335323017	2.590	41,639,907.76	0.50
<b>Sub Total for Package 1</b>					<b>46.734</b>	<b>548,873,781.01</b>	<b>6.61</b>
<b>Sub Total for District</b>					<b>46.734</b>	<b>548,873,781.007</b>	<b>6.61</b>
8	Faridpur	Boalmari	Chandpur GC- Kalinagar G C Road via chittar bazar& Dadpur UP. , Moyendia Bazar up to Vatiapara-MaouaR& Kanaipur R&H to chandpur GC vai koshagopalpur road. (sadar part)	329182002	9.868	72,197,269.82	0.87
9	Faridpur	Sadar		329472003	2.250	18,526,242.41	0.22
10	Faridpur	Bhanga	Maligram (R&H) - Kalamirdha GC Road	329102001	9.538	91,799,964.15	1.11
11	Faridpur	Sadarpur	Krishnapur GC-Sadarpur HQ-Piazkhali GC-Dhewkhali-Baliahati GC-Kawlibera-Tarail road(Sadarpur part)	329842002	13.770	121,643,204.00	1.47
12	Faridpur	Boalmari	Boalmari GC - Nagarkanda GC via GC via Moyendia bazar	329182001	6.970	53,093,926.09	0.64
13	Faridpur	Faridpur-S	Bakunda R&H to Kanaipur GC via Tambulkhana Road.	329472014	9.025	76,174,276.01	0.92
14	Faridpur	Madhukhali	Madhukhali RHD -Nimtola GC Road Starting from Madhu. Bus Stand.	329562002	8.100	79,387,715.34	0.96
<b>Sub Total for District</b>					<b>59.521</b>	<b>512,822,597.80</b>	<b>6.18</b>
15	Madaripur	Rajoir	Paikpara UP-Fultala hat-Dhamarchar Rd.	354803006	9.290	70,607,233.17	0.85
16	Madaripur	Rajoir	Takerhat GC-Sreenadi GC-Charmuguria-Khagdi RHD road	354802011	8.136	86,957,724.50	1.05
17	Madaripur	Rajoir	Improvement of Rajoir Upazila H/Q - Sreenadi GC	354802005	9.290	178,559,013.38	2.15
18	Madaripur	Rajoir	Improvement of Sagolchira R&H - Paikpara Union Road	354803011	6.280	65,675,833.17	0.79
19	Madaripur	Rajoir	Takerhat GC - Kadambari GC	354802001	12.650	135,044,086.07	1.63
20	Madaripur	Rajoir	Takerhat GC - Kabirajpur GC via Hossainpur UP	354802002	15.220	186,694,449.52	2.25
21	Madaripur	Rajoir	Sanerpar R&H - Amgram GC road	354802003	3.380	43,705,101.28	0.53
<b>Sub Total for Package 1</b>					<b>64.246</b>	<b>767,243,441.099</b>	<b>9.24</b>
<b>Sub Total for District</b>					<b>64.246</b>	<b>767,243,441.099</b>	<b>9.24</b>
22	Shariatpur	Sadar	Angaria GC - Chandrapur GC via Binodpur UP Road.	386692001	10.100	72,562,320.73	0.87

Sl. No.	Name of District	Name of Upazila	Name of Schemes	Road Code	Effective Length found from DPR (km)	Total Cost (BDT)	Total Cost in USD (M)
23	Shariatpur	Sadar	Chandrapur GC - Kazirtek R&H Road.	386692004	4.400	42,329,035.50	0.51
24	Shariatpur	Bhedarganj	Shakhinpur UP-Gowranga Bazar (Dularchar)	386143006	4.820	63,779,151.68	0.77
25	Shariatpur	Goshairhat	Kalikhola Bazar RHD-Rudrokar RHD via Nagerpara GC, Munshirhat Road.	386362001	8.400	83,124,209.28	1.00
26	Shariatpur	Damuddya	Subachani-Nagerpara Raod.	386252003	5.695	60,826,711.97	0.73
27	Shariatpur	Bhedarganj	Charbhaga UP-Gowranga bazar road.	386143016	4.650	60,135,420.43	0.72
28	Shariatpur	Bhedarganj	Shakhi GC - Mredhakandi RHD Road.	386142007	4.600	64,394,780.55	0.78
29	Shariatpur	Shariatpur-S	Balar bazar (Rudrakar)-Subhochani-Moderhat-Negerpara rd.	386692005	5.290	43,386,886.98	0.52
<b>Sub Total for District</b>					<b>47.955</b>	<b>490,538,517.11</b>	<b>5.91</b>
30	Rajbari	Rajbari-S	Belgachi G.C-Gandimara R&H Road	382762001	1.220	13,824,559.72	0.17
31	Rajbari	Rajbari-S	Khankhanapur GC-Falur Dokan R&H via Grils School	382762010	3.152	20,656,502.01	0.25
32	Rajbari	Rajbari-S	Alipur UP-Bagmara Hat via Matipara	382763021	7.645	60,941,409.18	0.73
33	Rajbari	Rajbari-S	Felur Dokan R&H-Kutirhat GC	382762006	3.883	46,834,170.75	0.56
34	Rajbari	Rajbari-S	Kolahat GC-Jamalpur GC	382762003	3.315	41,206,326.74	0.50
35	Rajbari	Rajbari-S	Kamaldia R&H-Panchuria UP via Alipur hat	382763010	5.251	52,216,197.46	0.63
<b>Sub Total for Package 1</b>					<b>24.466</b>	<b>235,679,165.869</b>	<b>2.84</b>
<b>Sub Total for District</b>					<b>24.466</b>	<b>235,679,165.869</b>	<b>2.84</b>
36	Cumilla	Chouddagram	Kadoir bazar(Suvapur UPC) -Banggodda GC Road via Unkot, Kayerdhari.	419313022	5.086	47,084,127.68	0.57
37	Cumilla	Chouddagram	Batisha NHW - Tarashail Bazar(Lal Msq) Road via Batisha Up,Debipur.	419313007	5.080	51,034,111.88	0.61
38	Cumilla	Chandina	Baragabindapur-Etbarpur UPC Rd. via Moddhatala, Sitalpur	419273020	1.030	15,843,223.56	0.19
39	Cumilla	Barura	Barura GC -Modaforanj RHD Road	419092013	9.314	103,953,665.37	1.25
40	Cumilla	Barura	Paranpur Bazar[ R&H]-Payelgacha UP office Road	419093004	7.687	42,621,231.93	0.51
41	Cumilla	Monohorgonj	Laksam H/Q - Natherpetua RHD via Munshirhat GC Road.(Monohargonj Portion)	419902009	5.342	86,773,659.07	1.05
42	Cumilla	Nangalkot	Adra UP-Manikmura Bazar Road via Volainbazar & Ghoramaidan	419873008	5.475	42,682,965.42	0.51
43	Cumilla	Laksham	Laksam Upazilla HQ-Chitoshi RHD(Moulana bazar) via Sreevang Rd.	419722005	5.000	49,881,290.52	0.60
<b>Sub Total for Package 1</b>					<b>44.014</b>	<b>439,874,275.428</b>	<b>5.30</b>
<b>Sub Total for District</b>					<b>44.014</b>	<b>439,874,275.43</b>	<b>5.30</b>
44	Chandpur	Faridganj	Faridganj GC-Rupsha GC Road.	413452001	5.740	73,923,183.23	0.89
45	Chandpur	Haimchor	Gazipur UP Office to Upazilla Head Quarter	413473011	3.383	55,573,183.44	0.67



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46	Chandpur	Faridganj	Pashim subidpur UP to Basara Bazar Road. Via Munshir Hat Bazar	413453035	4.601	60,321,442.64	0.73
47	Chandpur	Hazigonj	Cheangatali GC (Dadasgram up)-Dhadda-Khalpar bazar Road via Shaheb bazar & Pirojpur Bazar	413493015	7.620	93,737,601.85	1.13
48	Chandpur	Kachua	Kachua North UP (Tetuya)-Loskari-Boxagonj bazar road via Duati	413583023	6.600	98,405,859.80	1.19
49	Chandpur	Matlab South	Dakshin Nayergaon UP-Ashinpur-Aliara Road	413963003	6.273	58,886,796.01	0.71
50	Chandpur	Shahrasti	Chioshi (E) UP Office-Kharihor Bazar road via Kadra bazar	413953010	5.922	74,717,963.95	0.90
<b>Sub Total for District</b>					<b>40.139</b>	<b>515,566,030.91</b>	<b>6.21</b>
51	B. Baria	Kasba	Sayedabad-Kasba-Nayonpur-Mondabagh Road	412632001	18.280	152,309,793.54	1.84
52	B. Baria	Bancharampur	Bancharampur GC-Jibonganj GC Road via Sonarampur Bazar	412042001	22.403	42,015,910.23	0.51
53	B. Baria	Bijoynagar	Chandura R&H-Nurpur GC Road	412152001	10.160	129,561,437.74	1.56
54	B. Baria	Bijoynagar	Nurpur GC-Singerbeel hat Road	412152002	7.360	64,479,936.09	0.78
55	B. Baria	Nabinagar	Bitghar Hat to B.Baria R&H road via Kurighar Hat	412852006	12.250	295,743,195.18	3.56
<b>Sub Total for District</b>					<b>70.453</b>	<b>684,110,272.78</b>	<b>8.24</b>
56	Chattogram	Boalkhali	Kalurghat-Charandwip-Bhandaljuri-Saraf Bhata-Gudamghar Road (From RHD #126)	415122005	6.800	97,835,290.78	1.18
57	Chattogram	Anwara	Upazila Health complex-Peskar hat via Chatari UP Office(Chandpur D.C.Road).	415043005	5.000	56,590,089.95	0.68
58	Chattogram	Anwara	Bairag UPC-CUFL Rd-Parki Bazar via Parki sea Beach Road.	415043015	5.500	40,136,487.96	0.48
59	Chattogram	Lohagara	Adhunagar Khan hat GC to Chunati Hajee Para & RHD	415473008	3.220	57,494,041.85	0.69
60	Chattogram	Banshkhali	Arabsha Bazar GC - Ishwar Babur Hat GC Road Via Bashirullah Miazi hatChonua,Gandamara,Saral.	415082009	4.100	78,975,585.90	0.95
61	Chattogram	Chandanish	Dewanhat-Bailtali-Barma Damirhat G.C-Patiya Road.	415182002	16.200	135,330,830.74	1.63
62	Chattogram	Patia	Charlaikhya UP - Dangerchar (Akter Tower House) Road.	415613007	5.250	60,586,574.04	0.73
<b>Sub Total for Package 1</b>					<b>46.070</b>	<b>526,948,901.22</b>	<b>6.35</b>
<b>Sub Total for District</b>					<b>46.070</b>	<b>526,948,901.22</b>	<b>6.35</b>
63	Coxsbazar	Pekua	Pekua to Arabshah Bazar via Rajakhali Sabuj Bazar Road (From RHD #148)	422952002	8.552	118,253,527.43	1.42
64	Coxsbazar	Moheskhali	Matarbari-Dhalghat Road Via Mogdail Bazar	422493002	4.600	123,349,347.40	1.49
65	Coxsbazar	Moheskhali	Gorakghata-Ghatibanga Sonadia road.	422493003	4.500	152,995,836.57	1.84
66	Coxsbazar	Chakaria	Harbung Baraitali Road.	422163001	6.150	91,693,410.56	1.10

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67	Coxsbar	Ramu	Chainda - Rajarkul Road.	422663004	7.850	35,165,871.43	0.42
68	Coxsbar	Ramu	Chakmarkul - Montergoda Road. (PM Khali) Road.	422663002	6.302	64,538,517.64	0.78
<b>Sub Total for District</b>					<b>37.954</b>	<b>585,996,511.02</b>	<b>7.06</b>
69	Noakhali	Senbag	SomirmunshirhatG C- Kutuberhat G C Road	475802001	9.000	100,107,875.65	1.21
70	Noakhali	Senbag	Somir Munshirhat GC - RHD (Kesharpar UP) via Chilonia bazar Road	475802010	6.442	55,228,080.86	0.67
71	Noakhali	Sonaimuri	Kachihata-Thonar hat Road (Paloan pol RHW- Amannullapur UP-Eadgha Amin bazar-Amishapara UP)	475882006	14.214	134,378,044.36	1.62
72	Noakhali	Sonaimuri	Dirirjan Bazar -Ambarnogar UP Road.	475883018	5.450	52,498,192.47	0.63
73	Noakhali	Senbag	Senbag-Arjuntala UP Office (Chilonia Bazar).	475803007	4.810	51,039,848.35	0.61
74	Noakhali	Hatiya	Chowhomoni Bazar RHD - Char Changa GC via Majidi Bazar Road	475362005	8.600	124,674,038.16	1.50
75	Noakhali	Begumgonj	Banglabazar-Rajgong Road	475072004	7.245	74,536,501.79	0.90
<b>Sub Total for District</b>					<b>55.761</b>	<b>592,462,581.64</b>	<b>7.14</b>
76	Laxmipur	Ramgonj	Ramgonj Nagerdighir hat via Harischar Bazar	451652011	5.676	42,447,552.91	0.51
77	Laxmipur	Sadar	Bhobanigon GC- Refuje Market-Megna Bazar- Chakbazar-Munshirhat Road	451432006	9.000	50,549,168.54	0.61
78	Laxmipur	Raipur	Raipur-Panpara Road	451582002	5.889	109,638,187.39	1.32
79	Laxmipur	Komol Nagar	Lawrancekasher hat-Ander char Road	451743007	5.000	21,417,247.06	0.26
80	Laxmipur	Ramgati	Torabgonj GC - Shantirhat - Hajiganj - Bander hat - Chowdhurirhat - Ramgati Bazar Raod	451732007	12.000	104,385,324.12	1.26
<b>Sub Total for District</b>					<b>37.565</b>	<b>328,437,480.03</b>	<b>3.96</b>
81	Feni	Parashuram	Parashuram-Kalir bazar-Danikunda bazar-Saldhar bazar-Malipathar-Nilaxi-Fulgazi Road.(Parashuram-Bakter Munshi-Kuthir hat-Fazilerghat-Dagoanbhuyan Road (Dagoanbhuyan-Fazilerghat-Bakthermunshi) Road	430513008	8.682	65,257,287.40	0.79
82	Feni	Sonagazi	Motigonj UP-Dasherhat-ChardarbeshUP-Karamotiabazar-Kazir hat Rd	430942003	10.415	88,869,261.95	1.07
83	Feni	Sonagazi		430943002	8.815	77,199,505.87	0.93
84	Feni	Dagonbhuiyan	Dagonbhuiyan-Chowdhury Hat Road	430252004	4.020	43,020,316.25	0.52
<b>Sub Total for District</b>					<b>31.932</b>	<b>274,346,371.48</b>	<b>3.31</b>
85	Jashore	Monirampur	Monirampur-Nehalpur-Kapalia road	241612003	20.063	332,261,551.48	4.00
86	Jashore	Monirampur	Monirampur-Mukterpur road	241612008	18.445	294,611,546.21	3.55
87	Jashore	Monirampur	Monirampur GC - Bakra GC via Rajgonj GC Road	241612001	8.691	151,593,592.78	1.83
<b>Sub Total for Package 1</b>					<b>47.199</b>	<b>778,466,690.47</b>	<b>9.38</b>
88	Jashore	Chowgacha	Chowgacha (Damodar Battala)-Bidhadharpur Road.	241112009	8.760	43,721,143.50	0.53
89	Jashore	Chowgacha	Purapara GC-Moheshpur Pucca road-Bidhadharpur bazar Road.	241112011	7.530	49,358,314.44	0.59

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90	Jashore	Chowgacha	Narayanpur UP Office - Bondelitola Bazar Road.	241113018	4.400	30,146,544.69	0.36
91	Jashore	Sadar	Jashore -Potengali-Kayemkhola GC Road (Jashore - Sadar)	241472002	14.380	205,638,386.79	2.48
92	Jashore	Jhikorgacha	Bangdah GC- Kayemkhola GC via Chutipur Bazar, Mohammadpur Bazar.	241232010	12.400	246,239,764.14	2.97
<b>Sub Total for Package 2</b>					<b>47.470</b>	<b>575,104,153.56</b>	<b>6.93</b>
<b>Sub Total for District</b>					<b>94.669</b>	<b>1,353,570,844.03</b>	<b>16.31</b>
93	Kushtia	Kushtia-S	Bittipara Hat R&H-Jamjami G.C via Jhowdia Hat road.	250792005	17.050	138,728,771.78	1.67
94	Kushtia	Bheramara	Bheramara-Kuchimora GC-Juniadah GC-Allardarga GC (R&H) Rd.	250152001	14.100	120,114,874.58	1.45
95	Kushtia	Daulatpur	Taragunia G C-Bairagirchar-Moricha UP-Allardargha GC Road	250392009	13.230	174,643,921.21	2.10
96	Kushtia	Kumarkhali	Kushtia-Rajbari RHD(Lahini) to Katlagari GC Via Jaduboyra, Sandiara Bazar Road	250712007	15.600	75,004,273.69	0.90
97	Kushtia	Khoksha	Kushtia Rajbaria RHD-Panti GC via Jaduboyra-Shandiara bazar Road (Khoksa Portion)	250632006	8.410	84,781,389.30	1.02
98	Kushtia	Khoksha	Khoksa Somaspur-Sengram Kalitola GC pansha roa	250632001	10.445	110,313,599.31	1.33
<b>Sub Total for District</b>					<b>78.835</b>	<b>703,586,829.86</b>	<b>8.48</b>
99	Jhenaidah	Kotchandpur	Kotchandpur GC - Chowgacha GC Road (Kotchandpur Part).	244422003	4.700	51,900,086.59	0.63
100	Jhenaidah	Moheshpur	Moheshpur-Bagadanga road	244712007	12.255	162,186,115.25	1.95
101	Jhenaidah	Kaliganj	Kaligonj UZ H/Q-Kola GC	244332008	9.300	73,554,782.33	0.89
102	Jhenaidah	Kaligonj	Baro Bazar GC-Hakimpur GC Road	244332001	6.630	73,347,533.69	0.88
103	Jhenaidah	Jhenaidah-S	Naldanga UP HQ-Tetultala bazar Road	244193038	6.150	53,498,167.23	0.64
104	Jhenaidah	Moheshpur	Moheshpur H/Q-Hashadha GC (Moheshpur Portion)	244712003	5.230	62,142,787.41	0.75
105	Jhenaidah	Moheshpur	Natima UP office (Uzzalpur)-Bhabnagar bazar via ShamKur UP office	244713001	5.850	58,053,157.29	0.70
106	Jhenaidah	Moheshpur	Basbaria UP Office-Vasanpota bazar via Sreepur	244713010	4.660	45,255,892.57	0.55
107	Jhenaidah	Moheshpur	S.B.K UP office (Khalispur)-Krischandapur bazar via Purandarpur	244713015	5.900	47,196,390.51	0.57
108	Jhenaidah	Harinakunda	Harinakunda to HQ to Jhaudia GC (Harikunda portion)	244142005	4.400	39,216,140.64	0.47
<b>Sub Total for District</b>					<b>65.075</b>	<b>666,351,053.50</b>	<b>8.03</b>
109	Chuadanga	Sadar	Sarajgonj G.C-Hizolgari G.C	218232001	13.770	126,431,729.50	1.52
110	Chuadanga	Sadar	Hizolgari G.C-Uthali R&H (Sadar Portion)	218232007	7.950	72,772,781.51	0.88
111	Chuadanga	Jibannagar	Uthali R&H-Hizalgari GC.	218552004	2.180	24,621,161.39	0.30
112	Chuadanga	Jibannagar	Andulbaria UP-Grishnagar Bazar Road(Jibonnagar Part)	218553010	2.900	30,364,458.48	0.37
113	Chuadanga	Jibannagar	Sontospur R&H - Andulbaria GC - Hashada R&H	218552001	19.104	210,161,780.82	2.53

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114	Chuadanga	Jibannagar	Jibannagar R&H- Changkhali Border Road.	218552011	6.865	61,602,628.41	0.74
115	Chuadanga	Jibannagar	Daulatgonj GC-Akundabaria R&H.	218552005	12.450	72,123,289.21	0.87
<b>Sub Total for Package 1</b>					<b>65.219</b>	<b>598,077,829.32</b>	<b>7.21</b>
<b>Sub Total for District</b>					<b>65.219</b>	<b>598,077,829.32</b>	<b>7.21</b>
116	Magura	Salikha	Singra-Semakhali road.	255852001	11.430	150,306,049.66	1.81
117	Magura	Mohammadpur	Dohail - Nohata Road	255662001	11.200	93,706,906.26	1.13
118	Magura	Mohammadpur	Bethulia Bazar (Kalukhandi More) to Babukahli UP via Dumurshia Bazar Rd.	255663014	5.020	28,568,075.86	0.34
119	Magura	Magura-S	Berail Polita Gc- Bunagati GC via Nalia Ghat	255572004	5.600	72,436,396.50	0.87
120	Magura	Magura-S	Bogia U.P - Ramnagar bazar via Pukuria, Boro bazar Rd.	255573009	7.462	58,446,878.29	0.70
121	Magura	Salikha	Semakhali GC - Hazrahati R&H Road	255852005	7.500	85,990,588.99	1.04
122	Magura	Salikha	Hazrahati RHD - Bunagati GC Road.	255852013	5.626	65,376,435.27	0.79
<b>Sub Total for District</b>					<b>53.838</b>	<b>554,831,330.83</b>	<b>6.68</b>
123	Meherpur	Gangni	Bamonudi GC- Karomdi GC Road	257472003	6.450	77,928,085.60	0.94
124	Meherpur	Sadar	Baradi GC-Gangni HQ Road(Sadar part)	257872005	2.900	35,594,714.62	0.43
125	Meherpur	Mujibnagar	Bollovepur RHD -Anandabash GC Road	257882003	3.731	21,969,833.61	0.26
<b>Sub Total for District</b>					<b>13.081</b>	<b>135,492,633.84</b>	<b>1.63</b>
126	Narail	Kalia	Kalia Public Library-Boradia College More Road	265282002	11.220	100,577,732.22	1.21
127	Narail	Kalia	Kalia Baroipara RHD - Mazirgati GC Road	265282012	7.500	64,534,651.61	0.78
128	Narail	Narail-S	Tularampur-Shaikhati Road	265762003	9.892	55,605,178.38	0.67
129	Narail	Narail-S	Singasolpur-Chakoi via Rukhali Road	265763007	4.742	39,214,713.87	0.47
130	Narail	Narail-S	Sahabad UP (Alukdia)-Malidanga Minabazar Road	265763011	2.330	20,515,257.47	0.25
131	Narail	Lohagara	Lohagara-Radhanagar Via Itna	265522003	10.070	69,811,237.00	0.84
132	Narail	Lohagara	Naldi UP-Lahuria Rd.	265523006	4.745	27,825,070.96	0.34
<b>Sub Total for District</b>					<b>50.499</b>	<b>378,083,841.50</b>	<b>4.56</b>
133	Rajshahi	Godagari	Godagari to Kakonhat (Starting from Sadurmore)	181342001	13.850	86,018,034.82	1.04
134	Rajshahi	Godagari	Baliaghata Bazar RHD more to Mundumala GC via Jota Bottola, Hatgobindapur (258m over lapping with RHD)	181342008	20.500	111,581,998.61	1.34
135	Rajshahi	Godagari	Railbazar - Amnura road via Mowlanar gate, Dhuly shanko, Ratahary (Godagari part end at Khaira)	181342009	19.500	157,852,339.69	1.90
136	Rajshahi	Godagari	Basudebpur Sluice Gate-Dariapur ending at Nawabgonj Border	181343006	6.760	33,913,184.65	0.41
137	Rajshahi	Godagari	Pakri UP-Jotgopal	181343018	3.370	32,807,812.87	0.40
138	Rajshahi	Godagari	Godagari UP-Nabinagar Bazar Road	181343021	4.900	43,118,987.92	0.52

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<b>Sub Total for Package 1</b>					<b>68.880</b>	<b>465,292,358.55</b>	<b>5.61</b>
139	Rajshahi	Durgapur	Amgachhi GC-Katakhali R&H via Kuhar Rd.	181312006	3.000	35,330,796.02	<b>0.43</b>
140	Rajshahi	Durgapur	Durgapur-Belghoria.	181312001	8.780	84,759,360.02	<b>1.02</b>
141	Rajshahi	Durgapur	Shingahat GC-Amgachi Hat GC	181312003	6.250	78,522,097.30	<b>0.95</b>
142	Rajshahi	Charghat	Holidagachi National high way - Rajshahi University via Belghoria.	181252010	8.220	67,949,496.73	<b>0.82</b>
143	Rajshahi	Charghat	Charghat (Upazila HQ) - Arani GC (Rustompur) via Paglapara more.	181252003	9.860	71,613,163.37	<b>0.86</b>
144	Rajshahi	Puthia	Puthia-Baneswar GC	181822007	11.470	99,410,716.47	<b>1.20</b>
145	Rajshahi	Bagha	Bolihar Eidgah (R&H) - Digha GC via Tetulia hat.	181102010	7.596	26,627,822.65	<b>0.32</b>
146	Rajshahi	Bagha	Chandipur-Arani Rly. station via Bausa UP Office.	181103001	11.898	87,525,432.51	<b>1.05</b>
<b>Sub Total for Package 2</b>					<b>67.074</b>	<b>551,738,885.07</b>	<b>6.65</b>
<b>Sub Total</b>					<b>135.954</b>	<b>1,017,031,243.62</b>	<b>12.25</b>
147	Naogaon	Mohadevpur	Mohadevpur-Matazeehat GCM.	164502001	3.000	44,942,443.41	<b>0.54</b>
148	Naogaon	Patnitala	Modhuil GC- Shibpur GC Rd.	164752003	8.530	66,349,225.27	<b>0.80</b>
149	Naogaon	Mohadevpur	Chatra -Mohadebpur (Konjobon).	164502002	13.532	147,535,013.36	<b>1.78</b>
150	Naogaon	Mohadevpur	Moshibathan GC - Sultanpur Bazar-Patnitola GC (Part Mohadevpur)	164502018	7.360	95,523,268.31	<b>1.15</b>
<b>Sub Total for Package 1</b>					<b>32.422</b>	<b>354,349,950.353</b>	<b>4.27</b>
<b>Sub Total</b>					<b>32.422</b>	<b>354,349,950.35</b>	<b>4.27</b>
151	C.Nawabganj	Gomostapur	Akkelpur GC - Shibpur GC via Digha Road.	170372001	9.020	94,606,684.50	<b>1.14</b>
152	C.Nawabganj	Nachole	Sonaichandi-Rohanpur GC (Nachole Portion)	170562007	3.700	32,681,620.87	<b>0.39</b>
153	C.Nawabganj	Nachole	Sonaichandi-Dhansura More	170562005	2.758	23,173,470.45	<b>0.28</b>
154	C.Nawabganj	Sadar	Islampur UP Office to Shahajanpur UP office Road.	170663025	2.090	49,910,526.53	<b>0.60</b>
<b>Sub Total</b>					<b>17.568</b>	<b>200,372,302.35</b>	<b>2.41</b>
155	Natore	Bagatipara	Bagatipara Upazila H/Q-Tebaria GC Road (Bagatipara part)	169092003	5.600	55,774,419.11	<b>0.67</b>
156	Natore	Bagatipara	Jamnagar UP HQ-Jhalmolia Bazar viaVhitorbhag (Bagatipara part)	169093018	2.565	28,051,759.02	<b>0.34</b>
157	Natore	Bagatipara	Madhabbari Hat-Soilkona UP	169093013	3.765	37,995,068.31	<b>0.46</b>
158	Natore	Singra	Khajurtola RHD- Shamaspara GC Road via Dakmondop hat	169912013	4.300	41,348,719.39	<b>0.50</b>
159	Natore	Singra	Singra-Baruhash-Tarash (Singra part).	169912010	14.950	247,699,463.14	<b>2.98</b>
<b>Sub Total for Package 1</b>					<b>31.180</b>	<b>410,869,428.97</b>	<b>4.95</b>
<b>Sub Total for District</b>					<b>31.180</b>	<b>410,869,428.97</b>	<b>4.95</b>

Sl. No.	Name of District	Name of Upazila	Name of Schemes	Road Code	Effective Length found from DPR (km)	Total Cost (BDT)	Total Cost in USD (M)
160	Bogra	Dhunot	Dhunot (Khantonagar)-Amrul U.P. Office Road (Dhunot)	110272014	5.200	41,255,444.37	0.50
161	Bogra	Dhunot	Shimabari-Mothurapur-Khatiamari (Ekdhala) Road (Dhunot)	110272002	9.180	39,015,558.18	0.47
162	Bogra	Sherpur	Ranirhat-Shimabari (Chandaikona)-Mothurapur Road (From RHD #334)	110882002	14.174	73,241,330.78	0.88
163	Bogra	Sherpur	Garidaha UP (Baily Bridge) - Jhanjor Hat Road. via Ramashorpur.	110883013	10.000	107,610,220.49	1.30
164	Bogra	Sherpur	Salfa Bazar(Subli NHW)-Mirjapur U.P Office	110883020	5.650	75,376,345.98	0.91
165	Bogra	Shariakandi	Kamalpur U.P office-Goshaibari hat	110813004	5.245	53,905,214.10	0.65
166	Bogra	Sherpur	Bhaira Bazar - Bishilpur Road	110883031	3.575	37,980,569.64	0.46
<b>Sub Total for Package 1</b>					<b>53.024</b>	<b>428,384,683.52</b>	<b>5.16</b>
<b>Sub Total for District</b>					<b>53.024</b>	<b>428,384,683.52</b>	<b>5.16</b>
167	Joypurhat	Panchbibi	Panchbibi GC - Salaipur RHD Road	138742001	10.107	60,442,855.39	0.73
168	Joypurhat	Akkelpur	Gopinathpur UP office(Karaitola)-Raikali UP office .	138133010	8.000	59,603,311.38	0.72
169	Joypurhat	Joypurhat-S	Mongalbari hat Rd(Dogachi Up Office)to Durgadaha bazar road	138473005	6.270	44,417,413.90	0.54
170	Joypurhat	Khetlal	Moushumi Bazar (RHD) - Rukindipur GC via Sannyash Ghat (Khatlal portion)	138612008	5.570	45,632,908.17	0.55
171	Joypurhat	Kalai	Kalai-Kichok RHD Via Gongadaspur Road	138582014	4.255	52,869,567.39	0.64
<b>Sub Total for District</b>					<b>34.202</b>	<b>262,966,056.23</b>	<b>3.17</b>
172	Lalmonirhat	Hatibandha	Hatibandha-Daikhowa Hat	152332002	9.963	121,490,250.96	1.46
173	Lalmonirhat	Kaligonj	ZR at Baninagar to DaiKhowa GC.	152392003	3.638	42,341,128.39	0.51
174	Lalmonirhat	Kaligonj	ZR at Baninagar-Durakuti GC.	152392001	15.471	184,047,362.70	2.22
175	Lalmonirhat	Aditmari	Burirhat GC-Bhelabari GC Road	152022003	4.390	62,347,332.67	0.75
<b>Sub Total for District</b>					<b>33.462</b>	<b>410,226,074.72</b>	<b>4.94</b>
176	Kurigram	Rajarhat	Najimkhan GC-Khadabagh R&H Via Rajarhat	149772001	7.570	86,037,248.45	1.04
177	Kurigram	Kurigram-S	Pateswari RHD-Jatrapur GC Road.	149522001	10.320	90,635,259.90	1.09
178	Kurigram	Rowmari	Dantbhanga-Rowmari Via Baitkamari Bazar Road	149793010	13.632	76,494,269.89	0.92
179	Kurigram	Fulbari	Karibari GC-Khochabari Via Bhangamor U.P	149183001	8.551	50,678,401.23	0.61
180	Kurigram	Bhurungamari	Bangosonahat-Shahi Bazar GC Road.	149062001	3.920	15,244,112.86	0.18
181	Kurigram	Nageswari	Hasnabad UP Office - Newashi GC.	149613041	1.390	20,103,338.37	0.24
<b>Sub Total</b>					<b>45.383</b>	<b>339,192,630.70</b>	<b>4.09</b>
182	Gaibandha	Gobindaganj	Kamdia GC (UZR)-Birat GC Road.	132302011	9.970	93,660,639.99	1.13
183	Gaibandha	Gobindaganj	Bogra-Rangpur City Road to Nakai Hat via Talukkanupur UP road	132302012	9.271	50,940,267.11	0.61
184	Gaibandha	Saghata	Bonarpara GC-Katucha hat R&H Rd.	132882006	6.421	45,031,282.87	0.54

Sl. No.	Name of District	Name of Upazila	Name of Schemes	Road Code	Effective Length found from DPR (km)	Total Cost (BDT)	Total Cost in USD (M)
185	Gaibandha	Saghata	Dakbangla hat-Jumaerbari UP Road.	132883011	4.975	57,396,680.23	0.69
186	Gaibandha	Gobindaganj	Shakahar U.P-Fulpukuria Bazar	132303002	5.280	54,374,451.55	0.66
187	Gaibandha	Palashbari	Betkapa UP office-Haritala hat via Muraripur Road	132673014	3.150	39,345,722.76	0.47
188	Gaibandha	Palashbari	Dholbanga Bazar at Zillbandha-Pabnapur UP office Road	132673005	5.490	63,539,211.90	0.77
189	Gaibandha	Palashbari	Dublagari NHW-Dholbanga GC Road via Amlagachi GC	132672010	7.288	45,883,840.14	0.55
<b>Sub Total for Package 1</b>					<b>51.845</b>	<b>450,172,096.55</b>	<b>5.42</b>
<b>Sub Total for District</b>					<b>51.845</b>	<b>450,172,096.55</b>	<b>5.42</b>
190	Rangpur	Mithapukur	Lalbag G C (Vimergar) to Bhendabari GC via Runipukur GC & Shukurerhat GC(Mithpukur Part)	185582001	19.164	165,150,094.90	1.99
191	Rangpur	Pirganj	Dhaperhat GC-Chatra GC Road	185762001	3.950	41,682,154.22	0.50
192	Rangpur	Badarganj	Nagerhat GC-Padagonj hat via Arunnesha ghat	185033011	8.720	61,836,789.75	0.75
193	Rangpur	Gangachara	Gangachara UZHQ-Saraibazar via Gajaghanta GC Road	185272005	13.200	162,609,788.97	1.96
194	Rangpur	Pirgacha	Chowdhurani GC-Shatibari RHD Road (Pirgacha portion)	185732006	5.795	63,597,313.44	0.77
195	Rangpur	Pirganj	Tukuria hat-Tukuria UP office via Dudyabari Road	185763011	3.300	32,303,656.97	0.39
<b>Sub Total for District</b>					<b>54.129</b>	<b>527,179,798.25</b>	<b>6.35</b>
196	Dinajpur	Dinajpur-S	Pulhat R&H to Fasiladanga GC Road.	127642002	6.580	92,900,474.05	1.12
197	Dinajpur	Dinajpur-S	Chandaganj R&H to Ranigonjhat GC Road.	127642001	5.300	139,405,791.05	1.68
198	Dinajpur	Dinajpur-S	Fultala-Kamalpur Road.	127642003	11.100	39,167,181.70	0.47
199	Dinajpur	Dinajpur-S	Komalpur-Khanpur Road.	127642006	3.345	123,395,074.29	1.49
200	Dinajpur	Dinajpur-S	Fasiladanga G.C-Mohonpur RHD Rd.	127642007	9.365	170,231,739.81	2.05
<b>Sub Total for Package 1</b>					<b>35.690</b>	<b>565,100,260.90</b>	<b>6.81</b>
201	Dinajpur	Chirirbandar	Beltoli R&H to Binnakuri GC Road	127302001	5.880	66,389,291.18	0.80
202	Dinajpur	Chirirbandar	Binnakuri GC to Debiganj R&H Road	127302017	9.482	125,807,466.32	1.52
203	Dinajpur	Khanshama	Khansama G.C.-Bhobanigonj Via Joygonj	127602003	8.962	75,169,056.41	0.91
204	Dinajpur	Khanshama	Ramkola GC to RHD at Pakerhat Adarsha Gram via Sabuder hat, Pulerhat, Sheltu shah Madrasha.	127602016	14.314	132,943,081.62	1.60
205	Dinajpur	Chirirbandar	Daulatpur(Ambari hat R&H) to Kutubdanga GC road	127302014	6.370	79,090,974.71	0.95
<b>Sub Total for Package 2</b>					<b>45.008</b>	<b>479,399,870.24</b>	<b>5.78</b>
<b>Sub Total for District</b>					<b>80.698</b>	<b>1,044,500,131.14</b>	<b>12.58</b>
206	Thakurgaon	Thakurgaon-S	Bhawlar hat GC-Bhelazan RHD Road.	194942011	7.450	64,958,295.76	0.78
207	Thakurgaon	Baliadangi	Lahiri G.C-Fakirganj. G C. Road	194082007	6.530	58,603,476.20	0.71

Sl. No.	Name of District	Name of Upazila	Name of Schemes	Road Code	Effective Length found from DPR (km)	Total Cost (BDT)	Total Cost in USD (M)
208	Thakurgaon	Baliadangi	Barabari UP Office (Dangi)-Noyar hat via Jorkali Madhupur Road	194083004	7.500	93,337,894.57	1.12
209	Thakurgaon	Baliadangi	Baliadangi-DhirgonJ G.C .via Badambarihath Road	194082006	14.775	200,612,402.92	2.42
<b>Sub Total for Package 1</b>					<b>36.255</b>	<b>417,512,069.45</b>	<b>5.03</b>
<b>Sub Total for District</b>					<b>36.255</b>	<b>417,512,069.45</b>	<b>5.03</b>
210	Panchagarh	Debiganj	Fulbari GC - Panchpir GC	177342003	9.130	76,315,815.54	0.92
211	Panchagarh	Debiganj	Debiganj R&H Road (Bat Tree More) - Jharbari GC	177342002	17.250	216,956,730.47	2.61
<b>Sub Total for Package 1</b>					<b>26.380</b>	<b>293,272,546.008</b>	<b>3.53</b>
<b>Sub Total for District</b>					<b>26.380</b>	<b>293,272,546.01</b>	<b>3.53</b>
212	Nilphamari	Nilphamari-S	Nilphamari-Saidpur R&H at Textile Mill - Babrijhar GC .	173642003	8.095	62,074,268.33	0.75
213	Nilphamari	Nilphamari-S	Nilphamari ( LSD Godown) - Ramgonj G.C	173642005	7.452	72,897,119.82	0.88
24	Nilphamari	Nilphamari-S	Porarhat GC - Nilphamari- Domar R&H road at Hortokilota bazar via Baruahat - Puler hat - Chawra hat -	173642019	4.954	61,405,207.75	0.74
215	Nilphamari	Jaldhaka	Jaldhaka domar RHW choupathi-Tangonmari hat G.C.	173362003	17.800	144,156,309.34	1.74
216	Nilphamari	Dimla	ShutibarihathG.C-Kakra Chowpathi R&H Rd.	173122006	12.879	72,238,628.99	0.87
<b>Sub Total for Package 1</b>					<b>51.180</b>	<b>412,771,534.24</b>	<b>4.97</b>
<b>Sub Total for District</b>					<b>51.180</b>	<b>412,771,534.24</b>	<b>4.97</b>
<b>Total Packaging Cost for Part - 1 Section</b>					<b>1711.708</b>	<b>17,461,694,836.40</b>	<b>210.38</b>



**Attachment G: Sample Summary Sheet on Bid Evaluation  
and Contract Award: Loan [insert no.]: Rural Connectivity Improvement Project as on [insert date]**

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