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TA-8128 BAN (PPTA): Preparing Coastal Towns Infrastructure Improvement Project



DRAFT FINAL REPORT VOLUME 3: PROJECT ADMINISTRATION MANUAL



In association with:



Cover Photographs

Latrine, Amtali Pourashava	Damaged outfall flapgate, Galachipa Pourashava
Possible site for boat landing station, Pirojpur Pourashava	Water supply pond, and pond sand filter unit, Mathbaria Pourashava

This report consists of six volumes:

Volume 1	Main Report
Volume 2	Appendices
Volume 3	Project Administration Manual
Volume 4	Annex: Climate Change Assessment and Adaptation Strategy
Volume 5	Annex: Infrastructure, Water Resources
Volume 6	Annex: Financial and Economic Analyses

**PREPARING COASTAL TOWNS INFRASTRUCTURE IMPROVEMENT PROJECT
PPTA - TA-8128 BAN**

DRAFT FINAL REPORT

VOLUME 3: PROJECT ADMINISTRATION MANUAL

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GLOSSARY OF BANGLADESHI TERMS

<i>crore</i>	10 million (= 100 lakh)
<i>ghat</i>	boat landing station
<i>hartal</i>	nationwide strike/demonstration called by opposition parties
<i>khal</i>	drainage ditch/canal
<i>khas, khash</i>	belongs to government (e.g. land)
<i>katcha</i>	poor quality, poorly built
<i>lakh, lac</i>	100,000
<i>madrasha</i>	Islamic college
<i>mahalla</i>	community area
<i>mouza</i>	government-recognized land area
<i>parashad</i>	authority (pourashava)
<i>pourashava</i>	municipality
<i>pucca</i>	good quality, well built, solid
<i>thana</i>	police station
<i>upazila</i>	subdistrict

ACRONYMS

ABD	Asian Development Bank
ADP	annual development plan
ADSL	Associates for Development Services
AIFC	average incremental financial cost
AP	affected person (resettlement)
BBS	Bangladesh Bureau of Statistics
BC	bitumous carpeting
BCCRF	Bangladesh Climate Change Resilience Fund
BDT	Bangladesh Taka
bgl	below ground level
BLS	boat landing station
BMD	Bangladesh Meteorological Department
BMDf	Bangladesh Municipal Development Fund
BMGF	Bill and Melinda Gates Foundation
BRAC	Bangladesh Rural Advancement Committee
BRM	Bangladesh Resident Mission (ADB)
BT	bitumen topped (road)
BUET	Bangladesh University of Engineering and Technology
BWDB	Bangladesh Water Development Board
CAG	Comptroller and Auditor General
CAGR	compounded annual growth rate
CARE	An NGO
CBO	community-based organization
CC	city corporation; cement concrete; climate change
CCA	climate change adaptation
CCF	Climate Change Fund
CCR	climate change resilience
CCRIP	Climate Change Resilient Infrastructure Project
CDIA	Cities Development Initiative for Asia
CDMP	Comprehensive Disaster Management Programme
CDTA	capacity development technical assistance
CEIP	Coastal Embankment Improvement Program
CEP	Coastal Embankment Project
CLTS	Community-Led Total Sanitation
CQS	Consultants' Qualification Selection
CTIIP	Coastal Towns Infrastructure Improvement Project
CUIDG	

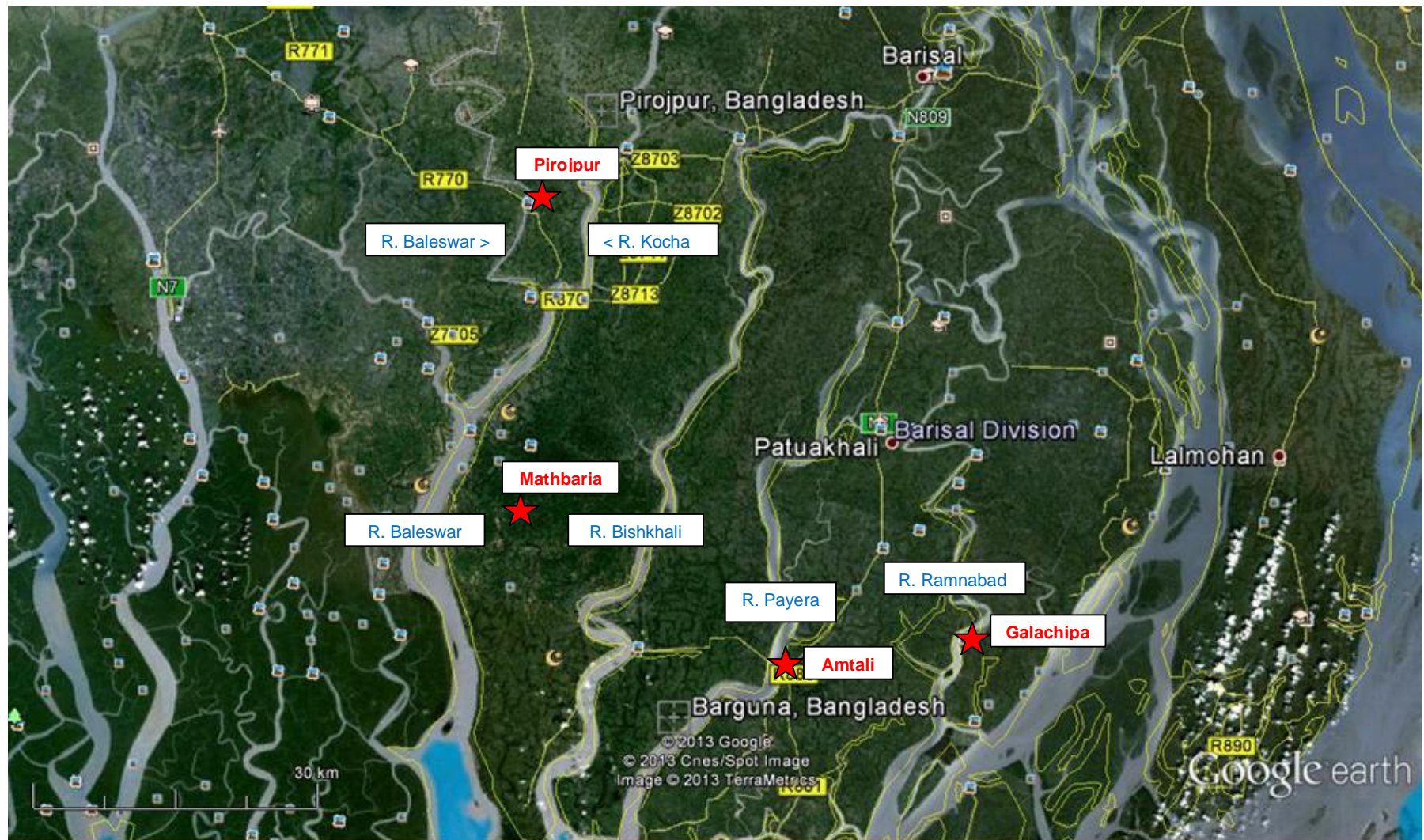
DANIDA	Danish International Development Agency
DED	detailed engineering design
DEM	digital elevation models
DEWATS	decentralized wastewater treatment system
DFID	Department for International Development (UK)
DFR	draft final report
DM	disaster management
DMC	developing member country
DMF	design and monitoring framework
DP	development partner
DPHE	Department of Public Health Engineering
DPP	development project proforma
DRM	disaster risk management
DRR	disaster risk reduction
DSCR	debt service coverage ratio
DSK	Dushthya Shasthya Kendra (an NGO)
DSP	deep set pump (in tubewell)
DTIDP	District Towns Infrastructure Development Project
DWASA	Dhaka Water Supply and Sanitation Authority
EA	executing agency
EARF	environmental assessment review framework
EIA	environmental impact analysis
EIRR	economic internal rate of return
EMP	environmental management plan
EOCC	economic opportunity cost of capital
EU	European Union
FAPAD	Foreign Aided Project Audit Directorate
FGD	focus group discussion
FMAQ	financial management assessment questionnaire
forex	foreign exchange
FS	feasibility study
FY	fiscal year (1 July – 30 June)
GBM	Ganges-Brahmaputra-Meghna river basin
GCM	General Circulation Model
GHG	greenhouse gas
GHK	GHK Consulting Limited (ICF GHK)
GIS	geographic information system
GIZ	German Society for International Cooperation
GOB	Government of Bangladesh
HBB	herring bone bond (road)
HH	household
IA	implementing agency
ICB	international competitive bidding
IEC	information-education-communication
IEE	initial environmental examination
IIED	International Institute of Economic Development
IOL	inventory of losses
IPCC	International Panel on Climate Change
IPPF	indigenous peoples planning framework
IT	information technology
IUCN	International Union for Conservation of Nature
IWA	International Water Association
JFPR	Japan Fund for Poverty Reduction

JICA	Japan International Cooperation Agency
KfW	German development funding agency
KPI	key performance indicators
LARP	land acquisition and resettlement plan
LBDT	lakh Bangladesh taka (BDT100,000)
LDRRF	local disaster risk reduction fund
LGD	Local Government Division
LGED	Local Government Engineering Department
LGI	local government institution
LOI	letter of intent
LS	lump sum
l/s, lps	liters per second
MAR	managed aquifer recharge
MBDT	million Bangladesh taka
MCA	multi-criteria analysis
MDG	Millennium Development Goals
M&E	monitoring and evaluation
MFF	Multitranche Financing Facility (ADB)
MHRW	Ministry of Housing and Public Works
MIDP	municipal infrastructure development plan
MIS	management information system
MLD	million liters per day
MLGRDC	Ministry of Local Government, Rural Development, and Cooperatives
MODMR	Ministry of Disaster Management and Relief
MOE	Ministry of Education
MOF	Ministry of Finance
MOU	memorandum of understanding
MSP	Municipal Services Project
MTBF	Medium Term Budget Framework
NAPA	National Adaptation Program of Action
NCB	national competitive bidding
NGO	non-government organization
NIRAPAD	Network for Information, Response and Preparedness Activities on Disaster
NPDM	National Plan for Disaster Management
NPV	net present value
NRW	non-revenue water
OCR	Ordinary Capital Resources (ADB)
ODA	official development assistance
OHT	overhead tank
OJT	on-the-job training
O&M	operation and maintenance
PAM	project administration manual (ADB)
PD	project director
PDA	project design advance
PDP	pourashava development plan
PIU	project implementation unit
PMO	project management office
PMU	project management unit
PPCR	Pilot Program for Climate Resilience
PPMS	project performance management system
PPP	public-private partnership
PPTA	project preparatory technical assistance
PRA	participatory rural appraisal

PSF	pond sand filter
PSU	pourashava sanitation unit
PWD	Public Works Department (datum)
QC	quality control
QCBS	Quality- and Cost-Based Selection
QM	quality management
RAJUK	Rajdhani Unnayan Katripakkha
RCC	reinforced cement concrete
RF	resettlement framework
ROW	right of way
R&R	resettlement and rehabilitation
RRP	report and recommendation of the president (ADB)
RSC	rural sanitation center
SCF	Strategic Climate Fund (ADB)
SDP	sector development plan
SEWTPS	socioeconomic and willingness-to-pay survey
SFYP	(Bangladesh) Sixth Five-Year Plan
SIDA	Swedish International Development Agency
SLR	sea level rise
SPA	social poverty assessment
SPCR	Strategic Program for Climate Resilience (GOB, 2010)
SPEC	Special Project Evaluation Committee
SPS	Safeguard Policy Statement (ADB)
SST	sea surface temperature
STWSSSP	Secondary Towns Water Supply and Sanitation Sector Project
SWM	solid waste management
SWOT	strength-weakness-opportunities-threat (analysis)
SWTP	surface water treatment plant
TA	technical assistance
TNA	training needs assessment
TOR	terms of reference
TOT	training-of-trainers
TRM	tidal river management
UDD	Urban Development Directorate, Ministry of Housing and Public Works
UFW	unaccounted-for water
UGIAP	urban governance improvement action plan
UGIIP	Urban Governance Infrastructure Improvement Project
ULB	urban local body
UNDP	United Nations Development Programme
UNFRA	United Nations Food Relief Agency
UN-HABITAT	United Nations agency for human settlements
UNICEF	United Nations Children's Fund
UP	union parashad
UPPRP	Urban Partnerships for Poverty Reduction Project
USAID	United States Agency for International Development
UTIDP	Upazila Towns Infrastructure Development Project
V	variation (contract)
VRC	vulnerability reduction credit (climate change adaptation)
WACC	weighted average cost of capital
WAPDA	Water and Power Development Authority
WARPO	Water Resources Planning Organization
WASH	water, sanitation and hygiene
watsan	water and sanitation

WB	World Bank
WFPF	Water Financing Partnership Facility (Netherlands Trust Fund)
WHO	World Health Organization
WQ	water quality
WRM	water resources management
WS	water supply
WSP	water service provider
WSP-EAP	Water and Sanitation Program – East Asia Pacific
WSS	water supply and sanitation
WSUP	Water and Sanitation for Urban Poor
WTP	willingness-to-pay
WWTP	wastewater treatment plant

LOCATION MAP



★ Study town

Project Administration Manual

Project Number: {XXXXXX}

Loan and/or Grant Number(s): {LXXXX; GXXXX; TXXXX}

July 2013

People's Republic of Bangladesh: Coastal Towns Infrastructure Improvement Project

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Appendix A: Procedure for Establishing and Operating the Imprest Account

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Appendix C: Accounting Statements and Financial Reports

Appendix D: Model Audit Opinion for a Non-Revenue Earning Project

Appendix E: Terms of Reference for Consultant and NGO Teams

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 Government and Asian Development Bank (ADB) policies and procedures. 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) and pourashava governments units are wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support 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/Grant¹} 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/Grant} Agreement, the provisions of the {Loan/Grant} Agreement shall prevail.

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

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¹ The name of the operational financing document may vary on a project to project basis; this reference shall be deemed to encompass such variations, e.g., a Framework Financing Agreement, as applicable.

Abbreviations

ADB	Asian Development Bank
BDT	Bangladesh taka
BWDB	Bangladesh Water Development Board
capex	capital expenditure
CBO	community-based organization
CTIIP	Coastal Towns Infrastructure Improvement Project
DED	detailed engineering design
DPD	deputy project director
DPHE	Department of Public Health Engineering
DPP	development project proposal
DRM	disaster risk management
DRR	disaster risk reduction
EA	executing agency
EARF	environmental assessment review framework
EIRR	economic internal rate of return
EMP	environmental management plan
FGD	focus group discussion
GAP	gender action plan
GOB	Government of Bangladesh
GRM	grievance redress mechanism
HH	household
IA	implementing agency
ICB	international competitive bidding
IEC	information-education-communication
IEE	initial environmental examination
IP	indigenous peoples
ISABC	institutional strengthening and awareness building consultants
LGED	Local Government Engineering Department
MFF	Multitranchise Financing Facility (ADB)
MLD	million liters per day
NCB	national competitive bidding
NGO	non-government organization
NRW	non-revenue water
O&M	operation and maintenance
opex	operation expenditure
PAM	project administration manual
PD	project director
PDA	project design advance
PIU	project implementation unit
PMU	project management unit
PPMS	project performance management system
PPTA	project preparatory technical assistance
PMSC	project management and supervision consultants
QCBS	quality- and cost-based selection
RF	resettlement framework
ROW	right of way
RP	resettlement plan
RRP	report and recommendation of the president (ADB)
SCF	Strategic Climate Fund
SpTF	sewage treatment facility
SWOT	strength-weakness-opportunities-threat (analysis)
TA	technical assistance
TOR	terms of reference
USD	United States dollar
WASH	water and sanitation, and hygiene
WSUG	water and sanitation user group
WTP	willingness-to-pay

I. PROJECT DESCRIPTION

1. **Project's location, rationale and beneficiaries.** The project is located in the coastal area of Bangladesh, and is designed to improve and expand municipal infrastructure and related services in selected pourashavas (municipalities) incorporating climate change resilience measures. Complementing the physical infrastructure components will be project management support services, and institutional development and capacity building activities.

2. The low-lying deltaic coastal area of Bangladesh (consisting of 19 districts in 4 divisions, with a total population of about 38.1 million, of which the urban population is about 8.6 million)² is very vulnerable to severe weather events such as tropical cyclones in the Bay of Bengal and storm/tidal surges, resulting in extensive flooding, backup of sewage, wind damage and, tragically, loss of human lives. Existing urban infrastructure in pourashavas such as water supply systems, sanitation facilities, roads, bridges and boat docking stations is generally inadequate, and suffers a great deal of damage during such events.

3. Modeling studies conducted during the PPTA indicate that cyclones will intensify in the future owing to increased sea surface temperatures in the Bay of Bengal. In fact, it is estimated that the more severe storms (windspeeds greater than 178 km/hour) will increase by approximately 60%, with the most severe storms with windspeeds over 250 km/hour trebling in frequency. Sea level rise is exacerbating the vulnerabilities of coastal towns, as storm surge heights will increase. Climate change impact is expected to result in an average sea level rise of between 17.5-39 cm by 2050—this could make 10-15% of the country extremely vulnerable to floods, and dislocate around 35 million people from coastal towns and rural areas.³

4. As well the increased risk of flooding, sea level rise will also increase saline intrusion of water supply sources (both surface water, and shallow groundwater), which will deteriorate water quality and the availability of potable water, with disproportionate impacts to women and the poor, including impacts on maternal health.⁴ Backup of sewage and water logging due to inadequate drainage will result in a deterioration of public health through the increased prevalence of waterborne diseases.

5. The impacts of climate change on coastal towns will be significant. Damages to buildings, roads, and economic activity will be steep. During Cyclone Sidr in 2007, an estimated \$45 million in loss and damage was assessed; for 2045 the model indicates cyclone damage may increase to \$20 million in the four towns studied under the PPTA. Loss of life, health and livelihoods is also expected to increase. Damage owing to monsoon season flooding is also expected to increase with sea level rise and increases in seasonal rainfall. The need for new infrastructure based on the existing development deficits and population growth, will be exacerbated by these climate impacts. New infrastructure will need to take into account changes in climate, including increased requirements for drainage systems, and higher flood inundation levels impacting the integrity of roads, bridges, and other infrastructure. New cyclone shelters will be required.

6. Governance and institutional capacity local governments in coastal towns is weak, and poverty incidence is high (52%).⁵ A recurring theme, in interviews with local and central

² BBS Community Reports, 2012.

³ The Daily Star: Business, 22 April 2013, citing ADB study on cutting greenhouse gases.

⁴ Aneire Ehmer Khan et al. September 2011. *Drinking Water Salinity and Maternal Health in Coastal Bangladesh: Implications of Climate Change*. Vol. 119, No. 9, Environmental Health Perspectives.

⁵ Ministry of Local Government, Rural Development & Cooperatives, Local Government Division, Local Government Engineering Department. Oct 2012. *Technical Assistance Project Proposal (TPP) (Recast) for Project Preparatory Technical Assistance (PPTA) Project for Coastal Towns Infrastructure Improvement Project (CTIIP) (Financed by Asian Development Bank) (SPEC meeting held at 30 September 2012)*.

government officials, and with coastal town residents and NGOs, is the limited role of the pourashavas in disaster risk reduction (DRR) and disaster risk management (DRM). The limited power of pourashavas to raise revenues limits their ability to maintain existing infrastructure.⁶ Extensive capacity building in local governments is needed to facilitate the development and operation of basic needs infrastructure.

7. Coastal towns face similar constraints in urban development and planning as encountered throughout urban Bangladesh, but exacerbated by the anticipated impacts arising from climate change. These constraints include: (i) steadily accelerating, hitherto unplanned and uncontrolled urbanization, some of which is attributable to the migration push factors of increased vulnerability to climate change, (ii) severe deficits in appropriate and adapted urban infrastructure provision and basic service delivery resulting from alarming financial constraints, (iii) planning instruments that either have not existed or are inadequately adapted to climate change and disaster risk management, lack an implementation-orientation and/or are un-enforced, (iv) the growth in urban poverty and lack of inclusiveness in municipal planning, with the burden of vulnerability falling disproportionately on the urban poor, (v) severe constraints in local government capacity, governance structures, and municipal finances all of which impact on the ability of pourashavas to respond to climate change.

8. Local urban planning is in its infancy throughout Bangladesh, including the coastal towns, with master plans and development control systems only now emerging. There is agreement that efficient planning systems are critical for efficient urban development and management, the need for which is magnified by climate change and the need to manage and reduce disaster risks. CTIIP will systematically build capacity in urban planning in general, and urban planning and climate change in particular, by strengthening the climate resilience of master plans, enhancing development control systems, introducing straightforward infrastructure investment programming and building the understanding of, and skills, in urban planning within the participating pourashavas.

9. It is estimated that at least 60,000 people will benefit from improved, climate resilient infrastructure in the four pourashavas studied under the PPTA (Amtali, Galachipa, Pirojpur, Mathbaria), plus many more from the institutional strengthening and awareness building activities.

10. **Impact.** The expected impact of the CTIIP is improved access to and delivery of climate resilient municipal services in selected pourashavas, including urban roads and bridges, solid waste management, slum improvements and boat landing stations, drainage, and water supply and sanitation; and reduction of the occurrence of water-related diseases, with reduced exposure to climate extremes.

11. **Outcome.** The projected outcome is the provision of more accessible, reliable and climate-resilient municipal services to the population of the pourashavas. The project design will incorporate the role of women in improving municipal services, particularly for water supply and sanitation, and target the poor.

12. **Outputs/ components.** The construction of improved infrastructure is by far the largest cost component of the project. However, ensuring that this infrastructure is transformed into sustainable services resilient to climate change will also require other factors such as improving community awareness and pourashava accountability and ensuring that pourashavas have sufficient human and financial resources to continue to

⁶ Smith, Barry, *Financing Urban Adaptation to Climate Change: Assessment of International Funding Mechanisms*, Background paper for Financing Urban Adaptation to Climate Change - An International Meeting Hosted by IIED, 13-14 June 2013, p. 29. Less than 2% of total government revenue is collated at sub-national levels.

deliver these services effectively.

13. Taking this into account, the project outputs will be: (i) improved municipal infrastructure with climate-resilient designs; (ii) strengthened local governance and capacity for sustainable service delivery and urban planning; (iii) awareness raising and behavioral change in climate change adaptation and disaster preparedness, water conservation and hygiene activities; and (iv) project management and administrative support.

14. **Project scope.** As is the case with other projects financed under a sector lending modality (such as Urban Governance and Infrastructure Improvement Project and the Secondary Towns Water Supply and Sanitation Project), the release of project funds to the pourashavas will be administered under a 2-stage process known as the Performance Criteria Mechanism, whereby the project pourashavas have to meet certain institutional capacity and governance criteria to receive funding. Infrastructure subprojects are therefore divided between Stage I funding and Stage II funding.

15. Investments under Performance Criteria Stage I include those infrastructure components in urban core areas and considered critical for building climate change resilience such as: (i) cyclone shelters, (ii) roads, bridges and culverts which will enhance climate change resilience through improved connectivity and access to emergency services in the event of disasters caused by natural hazards, (iii) solid waste management, (iv) drainage and flood control, and (v) water supply in urban core areas, and (vi) sanitation.

16. For investments under Performance Criteria Stage II it was decided during the ADB review mission of 30 June – 7 July 2013 that these would be in the form of a lump sum of \$1.0 million per town, for the pourashavas to use according to priorities and needs. Stage II investments that could be considered include: (i) other priority roads, bridges, and culverts, (ii) boat landing stations, (iii) markets, (iv) bus terminals, and (v) solid waste management, and (vi) water supply for future planned development areas.

17. Proposed Stage I infrastructure interventions (for the initial four pourashavas, studied under the PPTA), which include climate change resilience measures, are summarized in **Table I.1**.

Table I.1: Summary of Proposed Stage I Infrastructure Interventions

No.	Infrastructure Category	Proposed Interventions				
		Batch 1 Pourashavas				Batch 2 Pourashavas
		Amtal	Galachipa	Pirojpur	Mathbaria	
1	Roads, bridges (included side drain as required)	Roads: 8 no., 8.38 km	Roads: 7 no., 7.00 km	Roads: 17 no. 34.20 km Bridges: 4 no., length 38m	Roads: 5 no., 8.00 km Bridges: 1 no., length 42m	As per Batch 1 pourashavas, depending on infrastructure deficits, priority needs and contribution to climate change resilience (scope of interventions to be determined)
2	Cyclone shelters	3 no.	3 no.	4 no.	1 no.	
3	Solid waste management	5 no. rickshaw vans 10 no. push carts	5 no. rickshaw vans 10 no. push carts	6 no. rickshaw vans, 15 no. push carts	5 no. rickshaw vans 10 no. push carts	
4	Drainage and flood control	2.66 km drains - earthen channels - cement concrete block lined channels - reinforced cement concrete box culverts - reinforced cement concrete open drains - box culvert cleaning and gate repair	10.39 km drains: - earthen channels - cement concrete block lined channels - reinforced cement concrete box culverts - reinforced cement concrete covered drains - reinforced cement concrete open drains	25.3 km drains: - earthen channels - cement concrete block lined channels - reinforced cement concrete covered drains - reinforced cement concrete open drains	10.8 km drains: - earthen channels - cement concrete block lined channels - reinforced cement concrete covered drains	
8	Water supply	- 2. no. production tubewells - 1 no. overhead tanks - 37 km new transmission and distribution pipelines - replacement of 50mm pipelines with 100mm pipes (5.00 km) - 1,560 service connections - reconnection of 400 existing service connections with 100mm pipelines - service connection water meters - 3 no. bulk water meters - 30 no. hand deep tubewells - Mini water testing equipment - Vehicles, 2 no. back-up generators	- 2. no. production tubewells - 1 no. overhead tank - 25 km new transmission and distribution pipelines - replacement of 50mm pipelines with 100mm pipes (4.00 km) - 2,325 service connections - reconnection of 600 existing service connections with 100mm pipelines - service connection water meters - 4 no. bulk water meters - Mini water testing equipment - Vehicles, 2 no. back-up generators	None	- 1 no. surface water treatment plant 5.5 MLD capacity - river intake - 1 no. OHT, 1 no. ground reservoir, - embankment, - 10 no. exploratory wells, - 3.5 km transmission pipeline - 3,200 SCs - mini water testing equipment, - 1 no. genset	

No.	Infrastructure Category	Proposed Interventions				
		Batch 1 Pourashavas				Batch 2 Pourashavas
		Amtal	Galachipa	Pirojpur	Mathbaria	
9	Sanitation	<ul style="list-style-type: none"> - 6 no. public toilets - 2 no. community latrines - 1 no. desludging truck 	<ul style="list-style-type: none"> - 6 no. public toilets - 6 no. school latrines - 2 no. community latrines - 1 no. desludging truck- 	None	<ul style="list-style-type: none"> - 6 no. public toilets - 6 no. school latrines - no. community toilets - 1 no. desludging truck 	
CC=climate change; DTW=deep tubewell; GR=ground reservoir; OHT=overhead tank; PTW=production tubewell; RCC=reinforced cement concrete; SC=service connection; SWTP=surface water treatment plant						

II. IMPLEMENTATION PLANS

A. PROJECT READINESS ACTIVITIES

Indicative Activities	Months						Who responsible
	1	2	3	4	5	6	
Advance contracting actions							
Retroactive financing actions							
Establish project implementation arrangements							
ADB Board approval							
Loan signing							
Government legal opinion provided							
Government budget inclusion							
Loan effectiveness							

B. OVERALL PROJECT IMPLEMENTATION PLAN

	Activities	2013/2014 Year 0 (Mth/Qtr)	2014/2015 Year 1 (Mth/Qtr)	2015/2016 Year 2 (Mth/Qtr)	2016/2017 Year 3 (Mth/Qtr)	2017/2018 Year 4 (Mth/Qtr)	2018/2019 Year 5 (Mth/Qtr)	2019/2020 Year 6 (Mth/Qtr)
1. Batch 1 Towns (4 no. - Amtali, Galachipa, Pirojpur, Mathbaria)								
1.1	<i>Stage I infrastructure interventions</i>							
a.	Detailed engineering survey, investigation							
b.	Stage I performance criteria compliance							
c.	Preparation and approval of contract documents for civil works							
d.	Tendering, evaluation of bids, negotiations, award of contracts							
e.	Construction of physical works							
1.2	<i>Stage II infrastructure interventions</i>							
a.	Detailed engineering survey, investigation							
b.	Stage II performance criteria compliance							
c.	Preparation and approval of contract documents for civil works							
d.	Tendering, evaluation of bids, negotiations, award of contracts							
e.	Construction of physical works							
2. Batch 2 Towns								
2.1	Selection of towns							
2.2	Feasibility studies/ due diligence							
2.3	<i>Stage I infrastructure interventions</i>							
a.	Detailed engineering survey, investigation							
b.	Stage I performance criteria compliance							
c.	Preparation and approval of contract documents for civil works							
d.	Tendering, evaluation of bids, negotiations, award of contracts							
e.	Construction of physical works							
2.4	<i>Stage II infrastructure interventions</i>							
a.	Detailed engineering survey, investigation							
b.	Stage II performance criteria compliance							
c.	Preparation and approval of contract documents for civil works							
d.	Tendering, evaluation of bids, negotiations, award of contracts							
e.	Construction of physical works							
3. Technical Assistance								
4.1	Capacity building mobile support teams (CBMST) - financed under PPTA							
4.2	Recruitment of Project Design Advance (PDA) consultants							
	Deployment of PDA consultants							
4.3	Recruitment of Project Management and Supervision Consultants (PMSC)							
	Deployment of PMSC team							
4.4	Recruitment of Institutional Strengthening and Awareness Building Consultants (ISABC)							
	Deployment of ISABC team							

	Activities	2013/2014 Year 0 (Mth/Qtr)	2014/2015 Year 1 (Mth/Qtr)	2015/2016 Year 2 (Mth/Qtr)	2016/2017 Year 3 (Mth/Qtr)	2017/2018 Year 4 (Mth/Qtr)	2018/2019 Year 5 (Mth/Qtr)	2019/2020 Year 6 (Mth/Qtr)
4.5	Recruitment of NGO team for community awareness raising							
	Deployment of NGO team							
4.	Management Activities							
4.1	Procurement plan key activities to procure contract packages							
4.2	Consultant selection procedures							
4.3	Environment management plan and resettlement plan key activities							
4.4	Gender action plan key activities							
4.5	Communication strategy key activities							
4.6	Annual/Mid-term review							
4.7	Project completion report							

III. PROJECT MANAGEMENT ARRANGEMENTS

A. PROJECT IMPLEMENTATION ORGANIZATIONS – ROLES AND RESPONSIBILITIES

Project implementation organizations	Management Roles and Responsibilities
Executing agency	<ul style="list-style-type: none"> ➤ Coordinating the various project activities and act as the focal unit for coordination with ADB, as well as external government offices whose endorsement or approval and monitoring activities are mandated by existing policies or laws. ➤ Administration of loan disbursements ➤ Preparation of project completion report
Project management unit (PMU)	<ul style="list-style-type: none"> ➤ Day-to-day management of project implementation ➤ Liaison/coordination with pourashavas ➤ Budgeting and financial planning/management ➤ Recruitment of TA/consultant teams ➤ Procurement of goods ➤ Monitoring and evaluation data collection ➤ Process payments and disbursements to the designated conduits. ➤ Review and monitor implementation of the project and prepare/submit summary reports to the government and ADB.
Project implementation units (PIU)	<ul style="list-style-type: none"> ➤ Establish project working committee chaired by pourashava mayor. ➤ Liaise and correspond with the PMU on all issues related to the investment plan. ➤ Prepare and submit periodic progress reports to the PMU. ➤ Collect and submit data for the project performance monitoring system operated by the PMU. ➤ Prepare annual development plans for the subprojects. ➤ Facilitate the preparation of detailed subproject component proposals with the PDA consultants. ➤ Financial management. ➤ Land acquisition. ➤ Obtaining rights-of-way ➤ Procurement of civil works contracts. ➤ Facilitate construction supervision and quality control. ➤ Participate in institutional reform and capacity building activities. ➤ Promote public relations, enhance community development. ➤ Compliance of environmental and social safeguards requirements. ➤ Provide necessary support to consultant teams.
Inter-ministerial project	<ul style="list-style-type: none"> ➤ Provide policy guidance and overall coordination in the

steering committee

implementation of the project

ADB

- Disbursement of loan and grant funds to EA for on-granting
- Disbursement of loan funds to conduit body for on-lending
- Supervision and review missions

B. KEY PERSONS INVOLVED IN IMPLEMENTATION

Executing Agency

1. Local Government
Engineering Department

Officer's Name
Position
Telephone
Email address
Office Address

ADB

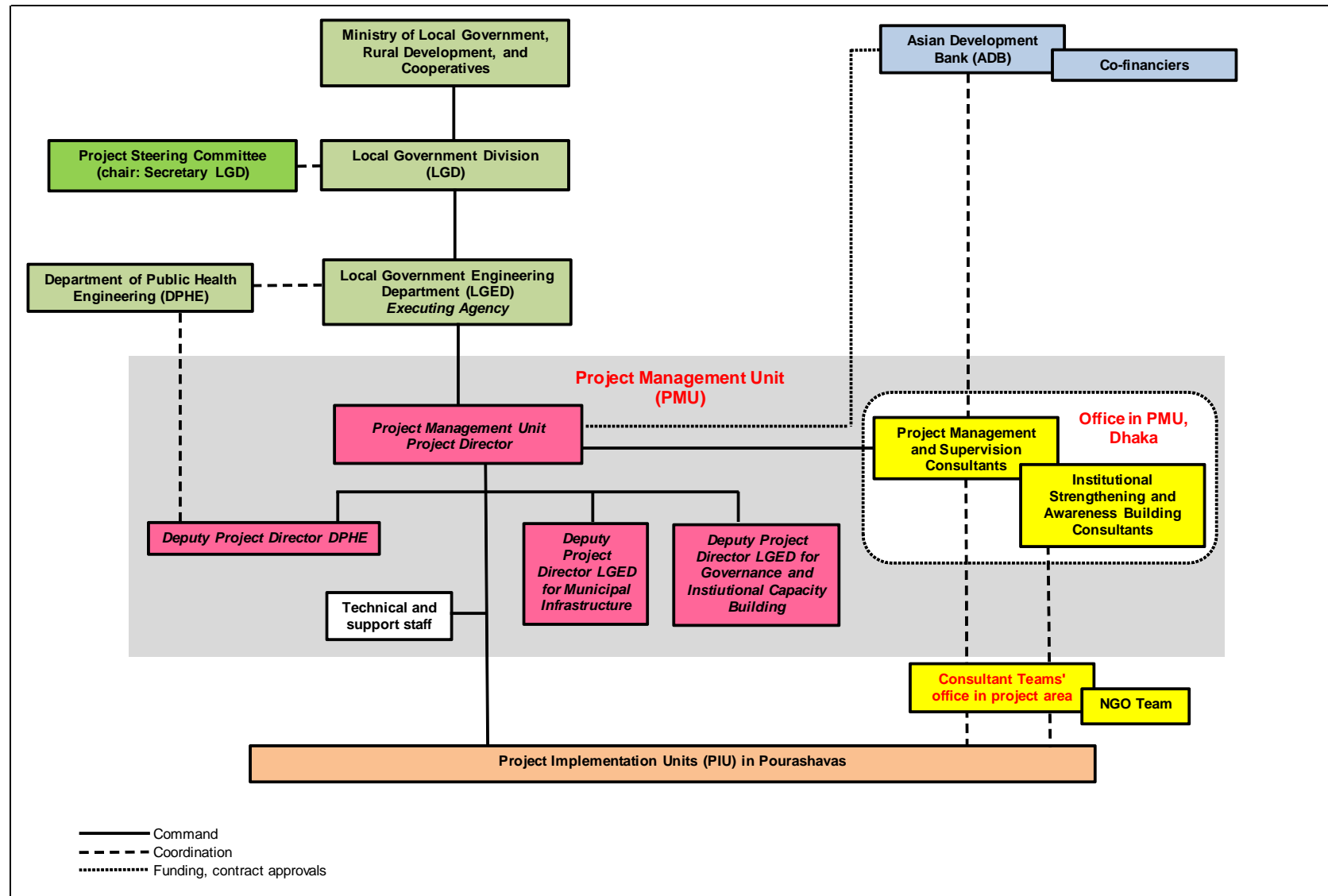
Urban Development and Water
Division, South Asia Department

Staff Name
Position
Telephone No.
Email address

Mission Leader

Staff Name
Position
Telephone No.
Email address

C. PROJECT ORGANIZATION STRUCTURE



IV. COSTS AND FINANCING

18. The total cost of the Project is estimated at \$115.6 million (**Table IV.1**), inclusive of taxes, duties, and interest and other charges on the loan during construction. A loan cum grant from ADB and SCF of \$ 92.5 million to finance 80.0% of the total project cost. The financing plan for the Project is summarized in **Table IV.2**. The proposed ADB loan cum grant will be provided from ADB's ADF, with an interest rate of 2% per annum, with a 25 year term including a grace period of 5 years, and such other terms as agreed under legal agreements.

Table IV.1: Project Cost Estimates (\$ million)

Details	Total	US \$ Million	
		ADB and SCF	GoB
A. Base Costs			
1. Climate Resilient Infrastructure Improvements			
Drainage	9.41	9.40	0.01
Roads	8.71	8.71	0.00
Bridges	0.57	0.57	0.00
Cyclone Shelters	3.53	3.53	0.00
Solid Waste	0.01	0.01	0.00
Sanitation	0.54	0.54	0.00
Water Supply	7.90	7.90	0.00
Stage II	3.40	3.40	0.00
Batch 2 towns infrastructure	34.75	34.75	0.00
Resettlement and Land Acquisition	0.19	0.00	0.19
Subtotal (1)	69.00	68.8	0.2
2. Consultant Packages			
Project Design Advance Consultants	3.44	3.44	0.00
Project Management and Supervision Consultants	3.74	3.74	0.00
Institutional Strengthening and Awareness Building Consultants	1.99	1.99	0.00
NGO	0.62	0.62	0.00
Subtotal (2)	9.78	9.78	0.00
3. Project Management Support			
Incremental Administration	2.81	2.81	0.00
Subtotal (3)	2.81	2.81	0.00
Total Base Cost (A)	81.59	81.39	0.20
B. Contingencies	11.10	11.10	(0.00)
C. Duties and Taxes	20.26	0.00	20.26
D. Financing Charges	2.65	0.00	2.65
Total Project Cost	115.60	92.49	23.11

Notes:

- In 2013 prices
 - Physical contingency computed at 5% for civil works, equipment and materials; price contingency computed at ADB projected local currency for Bangladesh and foreign exchange inflation rates.
 - Include interest charges.
 - Taxes – 5.5% for local contractors and 25% for international consultants and GoB balance of counterpart financing
- Source: PPTA Consultant Estimates.

A. DETAILED COST ESTIMATES BY EXPENDITURE CATEGORY

Table IV.2. Detailed Cost Estimates by Expenditure Category

Details	Foreign Exchange	Local Currency	US \$ Million	% to Total	Foreign Exchange	Local Currency	Million BDT	% to Total
A. Investment Cost								
1. Civil Works	26.96	40.44	67.41	82.6%	2,103.04	3,154.56	5,257.6	82.6%
2. Equipments and Materials	1.41	-	1.41	1.7%	109.70	-	109.7	1.7%
3. Resettlement and Land Acquisition	-	0.19	0.19	0.2%	-	15.00	15.0	0.2%
4. Consultants					-	-		
a. Project Development Advance	3.44	-	3.44	4.2%	268.16	-	268.2	4.2%
b. Project Management Supervision	3.74	-	3.74	4.6%	291.42	-	291.4	4.6%
c. Institutional Strengthening Awareness Building	1.99	-	1.99	2.4%	155.43	-	155.4	2.4%
d. NGO	-	0.62	0.62	0.8%	-	48.03	48.0	0.8%
5. Incremental Administration	-	2.81	2.81	3.4%	-	219.05	219.0	3.4%
Sub-total A	37.54	44.06	81.59	100%	2,927.8	3,436.6	6,364.4	100.0%
B. Contingencies								
1. Physical	1.58	1.86	3.44	4.2%	123.45	144.91	268.4	4.2%
2. Price	3.52	4.13	7.66	9.4%	274.74	322.50	597.2	9.4%
Sub-total B			11.10	13.6%	398.2	467.4	865.6	13.6%
C. Taxes and Duties		33.76	20.26	24.8%	-	2,633.67	1,580.7	24.8%
D. Financing Charges During Implementation								
1. Interest During Implementation		2.65	2.65	3.2%	-	206.47	206.5	3.2%
Sub-total D			2.65	3.2%	-	206.5	206.5	3.2%
Total Project Cost (A+B+C)	37.54	77.82	115.60	142%	3,325.9	6,744.2	9,017.1	142%

B. ALLOCATION AND WITHDRAWAL OF LOAN/GRANT PROCEEDS

19. The proceeds of the loan shall be used to finance eligible Project expenditures. All goods and services to be financed out of the loan proceed shall be procured in accordance with the Loan and Project Agreements and shall be used exclusively in the carrying out of the Project. ADB may refuse to finance a contract where goods or services have not been procured under procedures in accordance with those agreed between the Government and ADB, or where the terms and conditions of the contract are not satisfactory to ADB. Loan allocation and withdrawal percentages to be applied with withdrawing from the loan proceeds are in **Table IV.3**.

Table IV.3: ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS (CTIIP)

COMPONENT				ADB FINANCING BASIS
Number	Item	Total Amount Allocated for ADB / SCF Financing (\$) Component Subcomponent		Percentage of ADB/SCF Financing from the Loan Account
1	Urban Infrastructure Improvement	68,900,000		
1A	Civil Works		67,500,000	73.0 percent of total expenditure claimed
1B	Equipment		1,400,000	1.5 percent of total expenditure claimed
1C	Resettlement			___ percent of total expenditure claimed
2	Capacity Development and Implementation Support	11,600,000		
2A	Incremental Administration		9,800,000	10.6 percent of total expenditure claimed
2B	Preparation and Implementation Assistance		2,800,000	3.0 percent of total expenditure claimed*
3	Unallocated	900,000		
3A	Physical Contingencies	3,400,000		
3B	Price Contingencies	7,700,000	7	
	Total	92,500,000		

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

C. DETAILED COST ESTIMATES BY FINANCIER

In \$ Million

Table IV.4: Details Costs By Financier

Details	ADB & SCF		Net of Tax	GoB		% of Total	Total
	Total Amount	% of Total		Tax	Total Amount		
A. Investment Cost							
1. Civil Works	67.4	90.0%	-	4.3	4.3	10.0%	71.8
2. Equipments and Materials	1.4	90.0%	-	0.1	0.1	10.0%	1.5
3. Resettlement and Land Acquisition		0.0%	0.2	-	0.2	100.0%	0.2
4. Consultants							
a. Project Development Advance	3.4	80.0%		0.9	0.9	20.0%	4.3
b. Project Management Supervision	3.7	80.0%		1.0	1.0	20.0%	4.7
c. Institutional Strengthening Awareness Buiding	2.0			0.5	0.5	100.0%	2.5
d. NGO	0.6			0.0	0.0	100.0%	0.6
5. Incremental Administration	2.8	20.0%		13.5	13.5	80.0%	16.3
Sub-total A	81.4	80.0%	0.2	20.3	20.5	20.0%	101.9
B. Contingencies							
1. Physical	3.4	100.0%	-		-	0.0%	3.4
2. Price	7.7	100.0%	-		-	0.0%	7.7
Sub-total B	11.1	100.0%	-	-	-	0.0%	11.1
C. Financing Charges During Implementation							
1. Interest During Implementation		0.0%	2.6		2.6	100.0%	2.6
Sub-total C		0.0%	2.6		2.6	100.0%	2.6
Total Project Cost (A+B+C)	92.5	80.00%	2.8	20.3	23.1	20.0%	115.6

D. DETAILED COST ESTIMATES BY OUTPUTS/COMPONENTS

US\$ million

Table 3. Details Costs By Outputs and Components								115.6							
Details	Drains	Roads	Bridges	Cyclone Shelters	Solid Waste	Sanitati on	Water	Stage II	Batch II	PDA	PMSC	ISABC	NGO	IA	Total
A. Investment Cost															
1. Physical Works and Equipments	9.4	8.7	0.6	3.5	0.0	0.5	8.1	3.4	34.8						69.0
2. Resettlement and Land Acquisition							0.2								0.2
3. Consultants															0.0
a. Project Development Advance										3.4					3.4
b. Project Management Supervision											3.7				3.7
c. Institutional Strengthening Awareness Campaign												2.0			2.0
d. NGO													0.6		0.6
4. Incremental Administration														2.8	2.8
Sub-total A	9.4	8.7	0.6	3.5	0.0	0.5	8.3	3.4	34.8	3.4	3.7	2.0	0.6	2.8	81.8
B. Contingencies															
1. Physical	0.5	0.4	0.0	0.2	0.0	0.0	0.4	0.2	1.7	0.0	0.0	0.0	0.0	0.0	3.4
2. Price	0.6	0.5	0.0	0.2	0.0	0.0	0.6	0.4	4.9	0.1	0.1	0.0	0.1	0.0	7.7
Sub-total B	1.1	1.0	0.1	0.4	0.00	0.05	1.00	0.58	6.66	0.08	0.11	0.04	0.07	0.00	11.10
C. Taxes	0.6	0.3	0.0	0.2	0.0	0.0	0.5	0.2	2.3	0.9	1.0	0.5	0.0	13.5	20.0
D. Financing Charges During Implem	0.3	0.3	0.0	0.1	0.0	0.0	0.3	0.1	1.2	0.1	0.1	0.1	0.0	0.1	2.7
Total Project Cost (A+B+C+D)	11.4	10.2	0.7	4.2	0.0	0.6	10.1	4.3	44.9	4.5	4.9	2.7	0.7	16.4	115.6

E. DETAILED COST ESTIMATES BY YEAR

US\$ million

Table 4. Detailed Cost Estimates by Year

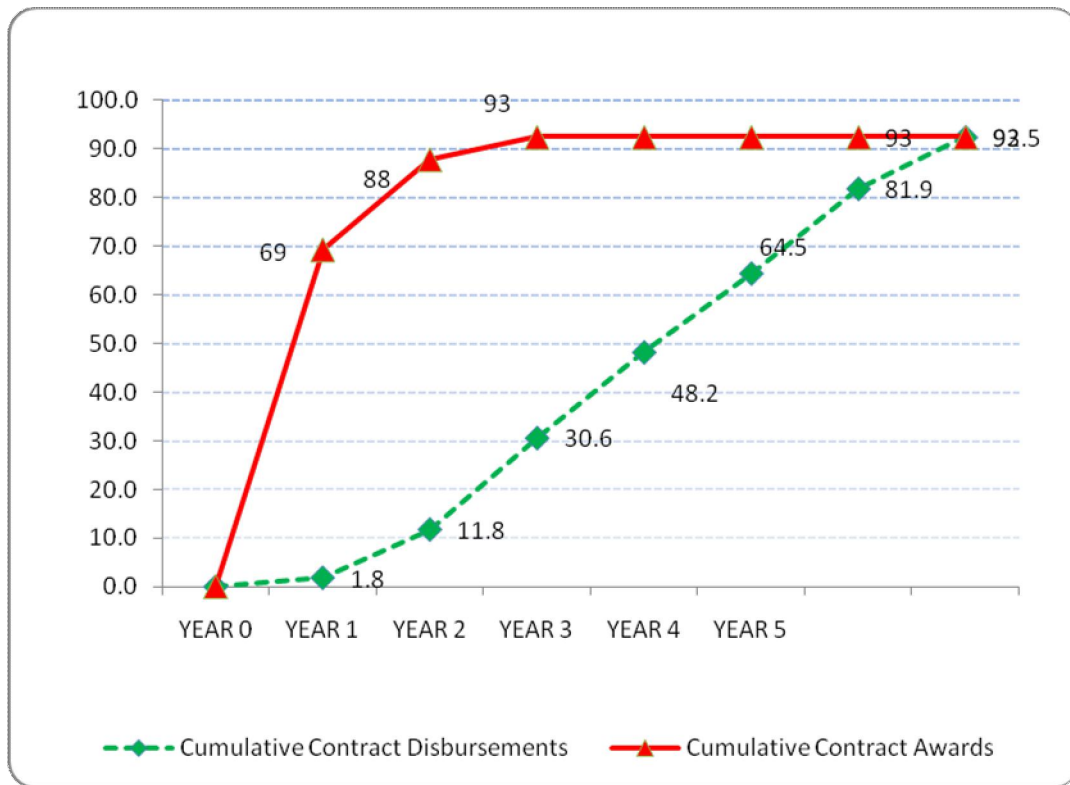
Details	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
A. Investment Cost							
1. Physical Works and Equipments	0.0	14.2	15.0	12.6	16.6	14.8	73.2
2. Resettlement and Land Acquisition	0.0	0.2	0.0	0.0	0.0	0.0	0.2
3. Consultants							
a. Project Development Advance	1.3	1.3	0.6	0.6	0.4	0.0	4.3
b. Project Management Supervision	0.9	1.0	1.0	0.8	0.5	0.4	4.7
c. Institutional Strengthening Awareness Building	0.8	0.7	0.5	0.4	0.0	0.0	2.5
d. NGO	0.1	0.1	0.1	0.1	0.1	0.0	0.6
4. Incremental Administration	2.2	0.1	0.1	0.1	0.1	0.1	2.8
Sub-total A	5.3	17.7	17.4	14.8	17.7	15.4	88.3
B. Contingencies							
1. Physical	0.0	0.7	0.7	0.6	0.8	0.7	3.4
2. Price	0.0	0.7	1.1	1.3	2.2	2.3	7.7
Sub-total B	0.0	1.4	1.8	1.9	2.9	3.0	11.1
C. Financing Charges During Implementation							
1. Interest During Implementation ^a	0.0	2.8	3.0	3.2	3.4	3.7	16.2
Sub-total C	0.0	2.8	3.0	3.2	3.4	3.7	16.2
Total Project Cost (A+B+C)	5.4	21.9	22.3	19.9	24.1	22.1	115.6

Cost Estimates of Project under the Investment Program (US \$ Million Equivalent)

Details	Total US \$ Million	% to Total
A. Base Costs		
1. Climate Resilient Infrastructure Improvements		
Drainage	9.41	8.1%
Roads	8.71	7.5%
Bridges	0.57	0.5%
Cyclone Shelters	3.53	3.0%
Solid Waste	0.01	0.0%
Sanitation	0.54	0.5%
Water Supply	7.90	6.8%
Stage II	3.40	2.9%
Batch II towns infrastructure	34.75	30.1%
Resettlement and Land Acquisition	0.19	0.2%
Subtotal (1)	69.00	59.7%
2. Consultant Packages		
Project Development Advance Consultants	3.44	3.0%
Program Management and Supervision Consultants	3.74	3.2%
Institutional Strengthening and Awareness Building	1.99	1.7%
NGO	0.62	0.5%
Subtotal (2)	9.78	8.5%
3. Project Management Support		
Incremental Administration	2.81	2.4%
Subtotal (3)	2.81	2.4%
Total Base Cost (A)	81.59	70.6%
B. Contingencies	11.10	9.6%
C. Duties and Taxes	20.26	17.5%
D. Financing Charges	2.65	2.3%
Total Project Cost	115.60	100.0%

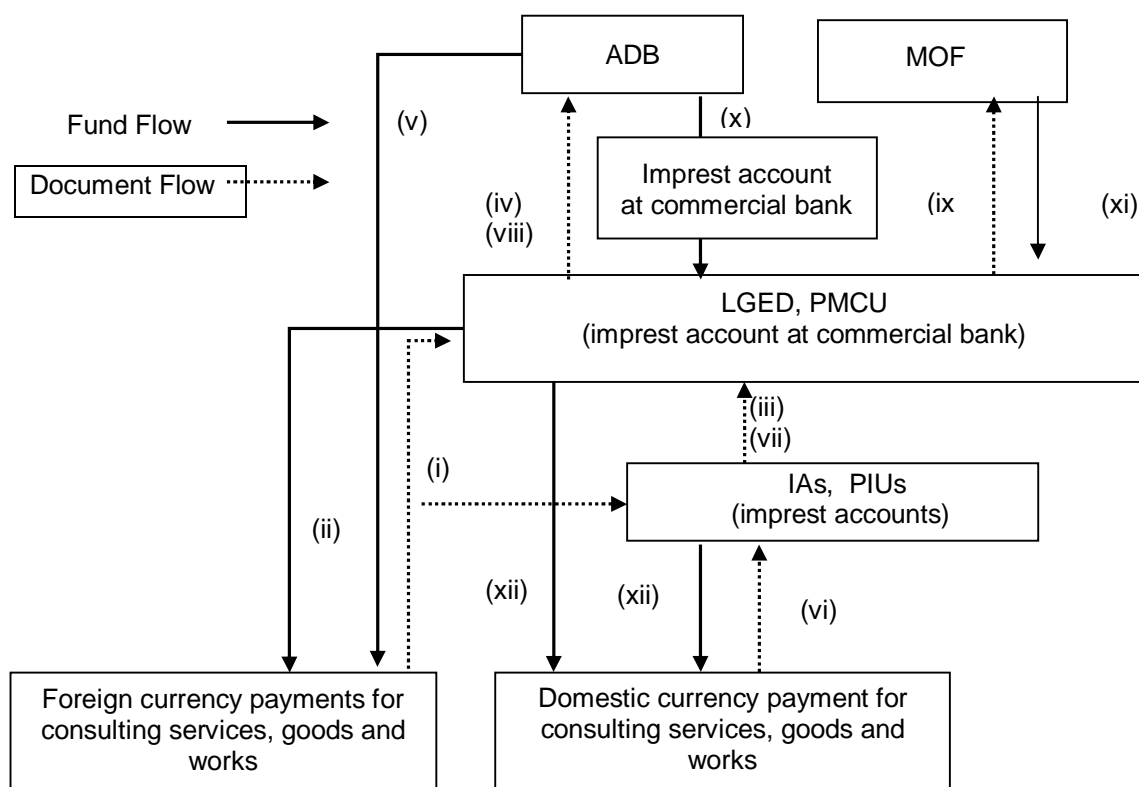
Notes:

1. Costs are at 2013 prices.
 2. Physical contingencies: Civil Works and Equipments - 5%
 3. Price contingencies - as per SARD circular for Bangladesh
 4. Taxes: 5.5% for infrastructure works and 25% for international consultants and balance amount of GoB contribution
 5. Exchange Rate used 1 US\$ = BDT 78
- Source: PPTA Consultant Estimates

F. CONTRACT AND DISBURSEMENT S-CURVE

Source: PPTA Consultant Projections.

G. FUND FLOW DIAGRAM



For Direct Payment of foreign currency claims for consultants, goods suppliers, and works contractors:

- (i) Contractors and consultants issue claims to PIUs/PMU
- (ii) PIU/PMU check the claims and make payment (Government counterpart fund, if any)
- (iii) PIU sends contractor's/consultant's invoices to PMU for direct payment from ADB and other evidence of payment of government counterpart fund to PMU
- (iv) PMU send request to ADB for direct payments together with contractors' and consultants' invoices
- (v) ADB makes direct payment to contractors and consultants.

For Other Expenditures:

- (vi) Contractors and consultants issue claims to PIUs/PMU
- (vii) PIU sends expenditure statement to PMU including contractor's value
- (viii) PMU consolidates statement of expenditures and request ADB for replenishment
- (ix) Consolidated expenditure statement submitted by PMU to MOF
- (x) ADB makes replenishment to imprest account
- (xi) MOF makes payment to PMU's project account
- (xii) PIUs/PMU makes payment.

V. FINANCIAL MANAGEMENT

A. FINANCIAL MANAGEMENT ASSESSMENT

Financial Management Assessment of LGED

Table V.1: LGED (PMO) - Summary Financial Management Assessment

Area of Assessment	Findings
Executing Agency (EA) and Implementing Agency (IA)	<ul style="list-style-type: none"> The EA is the LGED. PMO will be staffed by drawing personnel from the finance department, line agencies and contract employees as required. IAs are the five Pourashavas. The financial assessment has been done for five Pourashavas, including Patuakhali, Galachipa, Amtali, Pirojpur and Mathbaria.
Major Experiences of EA and IA in Managing ADB Financed Projects	<ul style="list-style-type: none"> LGED has managed many ADB and external donor financed projects. LGED is implementing UGIIP-2. The average annual loan utilizations are \$___ million for loan ____. IAs: Project pourashavas have not implemented any ADB financed project. Galachipa: BMDF and Danida/DPHE Water Supply Amtali: BMDF and Danida/DPHE Water Supply Pirojpur: BMDF, MSP-World Bank and Secondary Towns Water Supply (ADB/DPHE) Mathbaria: BMDF only. <p>No prior experience of ADB funded project for all IAs except for Pirojpur.</p>
Fund Flow Arrangements	<ul style="list-style-type: none"> Loan proceeds under Project will follow the existing fund flow arrangement for UGIIP-2. ADB disburses the loan proceeds to the Government of Bangladesh (Government) account in the Bangladesh Bank (BB). LGED, as the PMO, will manage loan proceeds through direct payment procedures, statement of expenditure procedures, and reimbursement procedures. The Project pourashavas, being the project implementation units (PIU), will receive funds from PMO. Expenditures are consolidated monthly by PMO and reimbursement claims are then preferred to ADB.
Organization and Staffing of EA and IAs	<ul style="list-style-type: none"> There are at present 3 officers / staff at LGED solely designated for CTIIP. Among them, ___ are finance officers / analysts with relevant experience and qualifications. IAs: Galachipa: Accountant – 1; Accounts Assistant – 1; Cashier - 1 Amtali: Accountant – 1; Accounts Assistant – 1; Cashier - 1 Pirojpur: Accounts Officer – 1; Accountant – 1; Accounts Assistant – 1; Cashier - 1 Mathbaria: Accounts Officer – 1 (vacant at present); Accountant – 1; Accounts Assistant – 1; Cashier - 1
Accounting Policy and Procedure and Information System	<ul style="list-style-type: none"> LGED (PMO) accounts are maintained on accounting software based in Bangladesh accounting standards which compare well with international standards. There are established procedures for recording the transactions, record keeping and reports, and cost accounting (including cost control and analysis) at LGED (PMO) and the pourashavas.

Area of Assessment	Findings
Segregation of Duties in EA	<ul style="list-style-type: none"> • Authorization to execute a transaction, recording of the transaction; and custody of assets involved in transaction are performed by different persons. • The functions of ordering, receiving, accounting for, and paying for goods and services are segregated.
Budgeting System in EA and IA	<ul style="list-style-type: none"> • LGED prepares the budget once in a year according to financial year following an assessment of funds requirement for various activities – in terms of physical and financial targets for the financial year. Manager (Finance) prepares the Budget which is approved by Project Director. Actual expenditure is compared with budget on regular basis. LGED also prepares monthly financial reports comparing actual against budget figures and explanations are required for significant variations from the budget. Monthly progress reports provide information about stage of project execution. • Pourashavas prepare budgets once a year according to financial year. The Accounts Section prepares the budget which is then approved by Mayor and Municipal Councils. Actual expenditures are compared to budget for significant variations.
Payments in EA and IAs	<ul style="list-style-type: none"> • All bills and invoices are stamped PAID.
Cash at Bank in EA	<ul style="list-style-type: none"> • Project Director is the sole authorised signatory for issuance of all check payments at LGED. • Pourashavas: Joint authorized signatory – Mayor and Secretary is required for issuance of all check payments at the pourashavas. • LGED and the pourashavas maintain adequate, up-to-date cashbooks, recording receipts and payments. Bank and cash are reconciled on monthly basis.
Safeguard over Assets by EA and IAs	<ul style="list-style-type: none"> • The fixed assets register exists, following the laws and rules. • LGED assets are covered under insurance depending upon the nature and cost of assets. • Except for vehicles, pourashavas do not insure for other assets.
Other Offices of EA	<ul style="list-style-type: none"> • LGED has established controls and procedures for flow of funds, financial information, accountability, and audits in relation to its Regional Office and Divisional offices.
Internal Audit in EA	<ul style="list-style-type: none"> • Internal audit of LGED is inhouse. • No internal audit done at pourashavas. There is an audit and inspection committee which takes up the work on need basis. Performance review is carried out by Additional Municipal Commissioner (ADC) on behalf of District Commissioner at pourashavas.
External Audit in EA	<ul style="list-style-type: none"> • The Annual Statutory Audit is conducted by Comptroller and Auditor General (CAG). Detailed audit guidelines are provided by the CAG. • All external audits are of pourashavas are also carried out by CAG office. • There are no major audit recommendations that need to be implemented.
Reporting and Monitoring in IA	<ul style="list-style-type: none"> • Financial Statements of the pourashavas are prepared in accordance with Bangladesh Government accounting standards, and under generally accepted accounting principles. Financial statements are prepared implementing unit wise, funding source wise and project wise.

Area of Assessment	Findings
	<p>Project wise financial statements are submitted to LGED on a monthly basis.</p> <ul style="list-style-type: none"> In addition to the financial statements, monthly and quarterly internal financial reports which are useful to the management for decision making purpose are also prepared. Financial reports are prepared on the excel spreadsheet on the basis of the accounting report generated through automated accounting system.

Source: PPTA Consultant.

1. Financial Management Assessment Questionnaire for LGED

Topic	Response	Remarks
1. Implementing Agency		
1.1 What is the entity's legal status / registration?	LGED is a government agency under the Local Government Division of M/o LGRD&C	The GoB formed LGED in 1984 to assist the Central Government in building rural infrastructure
1.2 Has the entity implemented an externally-financed project in the past (if so, please provide details)?	Yes. LGED since its inception has been implementing a large number of aided projects funded by WB, ADB, JBIC, IFAD, DANIDA, DFID, IDB, GTA, KfW etc.	Over the years the management of LGED has gained experience on donor conditional ties and procedures in terms of financial operation. At present LGED is working on similar projects.
1.3 What are the statutory reporting requirements for the entity?	Agency head is reporting to Ministry.	The C & AG an independent SAI conducts the audit of public sector organizations and statutory bodies and report to Parliament/President.
1.4 Is the governing body for the project independent?	No. The PMO and Project Steering Committee (PSC) are not fully independent with regard to administrative and financial operations.	With regard to budget allocation and disbursement the PMO and PSC has to depend on the Administrative Ministry, Ministry of Finance and Planning Commission
1.5 Is the organizational structure appropriate for the needs of the project?	Yes. During the design of Development Project Proposal (DPP) the EA / IAs provides necessary management arrangement/ organizational structure in order to implement the project activities	The organizational structure within the DPP to be review and all positions to be filled without delay
2. Funds Flow Arrangements		
2.1 Describe (proposed) project funds flow arrangements, including a chart and explanation of the flow of funds from ADB, government and other financiers.	ADB to Central Bank at Bangladesh to Commercial Bank to Contractors. In the case of GoB annual funds are available in four quarters through the Government Treasury	Disbursement and Fund flow diagram attached in Fig 1 for ADB. Detailed arrangements for other co-financiers to be confirmed.

Topic	Response	Remarks
2.2 Are the (proposed) arrangements to transfer the proceeds of the loan (from the government / Finance Ministry) to the entity satisfactory?	Yes	
2.3 What have been the major problems in the past in receipt of funds by the entity?	None significant	
2.4 In which bank will the Imprest Account be opened?	Bangladesh Bank or in a commercial bank approved by the Ministry of Finance (MoF) as per loan agreement.	
2.5 Does the (proposed) project implementing unit (PIU) have experience in the management of disbursements from ADB?	Yes.	Since they implemented previous ADB assisted projects, it is assumed that they have adequate experience.
2.7 Does the entity have/need a capacity to manage foreign exchange risks?	Yes. .	Since the entity has been managing a large number of foreign assisted projects over the years and hence it is assumed that they are capable of managing foreign exchange risks
2.8 How are the counterpart funds accessed?	Through annual development program of GoB. The fund is released in favor of project annually in four installments.	
2.9 How are payments made from the counterpart funds?	From CAG Office on the basis of GO.	
2.10 If part of the project is implemented by communities or NGOs, does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?	Yes.	The project receives periodical reports to track financial transactions from NGOs. This provides a built in control over the financial management of the NGOs as there are subject to annual audit.
2.11 Are the beneficiaries required to contribute to project costs? If beneficiaries have an option to contribute in kind (in the form of labor), are proper guidelines formulated to record and value the labor contribution?	Specific guidelines are there.	
3. Staffing		
3.1 What is the (proposed) organizational structure of the accounting department? Attach an organization chart.	N/A. A project organogram is already in place	Prepare one for CTIIP
3.2 Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.	Most of the accounting staff is of commerce graduate and they are being trained periodically.	Get the numbers and ensure staffing in PMO / PIUs.

Topic	Response	Remarks
3.3 Is the project finance and accounting function staffed adequately?	Yes.	
3.4 Is the finance and accounts staff adequately qualified and experienced?	Yes. Most of them are commerce graduates and are performing well.	
3.5 Is the project accounts and finance staff trained in ADB procedures?	Yes. LGED's training unit has conducted a number of financial management courses covering ADB's disbursement and financial management procedures.	
3.6 What is the duration of the contract with the finance and accounts staff?	Most of them are regular staff of LGED	
3.7 Indicate key positions not contracted yet, and the estimated date of appointment.	N/A. Key GoB personnel are already engaged in the existing project	
3.10 Does the project have written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?	Yes	ToR of consultants' key position have been prepared. LGED staff working on the Project are to have clearly defined roles and responsibilities prepared.
3.11 At what frequency are personnel transferred?	Normally after three years.	
3.12 What is training policy for the finance and accounting staff?	Yearly LGED prepares a calendar of training to conduct a number of training courses for finance and accounting staff.	
4. Accounting Policies and Procedures		
4.1 Does the entity have an accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?	Yes. The entity follows the Project Accounting Manual issued by MOF. This allows the capture of proper recording of Project financial transactions, including the allocation of expenditure in accordance with respective components, disbursement categories and sources of funds.	
4.2 Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?	Yes. All the transactions are made in accordance with appropriate budget allocation with the approval of authorized person of the Project as mentioned in the Delegation of Financial Power issued by MoF.	
4.3 Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?	Yes. The Government has issued a chart of accounts of 14 digits to identify the transactions and its records. This ensures the accounts are recorded against project activities and disbursement categories.	
4.4 Are cost allocations to the various funding sources made accurately and in accordance with established agreements?	Yes	

Topic	Response	Remarks
4.5 Are the General Ledger and subsidiary ledgers reconciled and in balance?	Yes. Periodical reconciliation is made to ascertain the tracking of the expenditures	
4.6 Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?	Yes. The Government has necessary directives to preserve the documents based on types for a period. Yes. Authorized persons can have access to records.	
Segregation of Duties		
4.7 Are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?	Yes. Only the PD, EEs and other designated personnel are authorized to approve the expenditure as per the delegation of financial power and recording is done by the accounting personnel.	
4.8 Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?	Yes	
4.9 Are bank reconciliations prepared by someone other than those who make or approve payments?	Yes	
Budgeting System		
4.10 Do budgets include physical and financial targets?	Yes. The Government has introduced Mid Term Budgeting Framework (MTBF) system of budget and this contains the physical and financial target.	
4.11 Are budgets prepared for all significant activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?	Yes. The budget code is exhaustive and contains the classification of allocation in defined activities.	
4.12 Are actual expenditures compared to the budget with reasonable frequency, and explanations required for significant variations from the budget?	Yes. LGED centrally monitors project activities with budget variance analysis for timely intervention.	
4.13 Are approvals for variations from the budget required in advance or after the fact?	Yes. Approvals are required in advance	
4.14 Who is responsible for preparation and approval of budgets?	Centrally MOF is responsible for preparation and approval of budget with necessary support from Planning Commission and respective department/ project entities	

Topic	Response	Remarks
4.15 Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?	Yes. Preparation of budget is a bottom up approach. PIUs provide the actual data from field / cost centers to PMO. PMO consolidates and compiles and forwards to LGED HQ for further approval from Administrative Ministry and finally sent to MoF and Planning Ministry for approval.	
4.16 Are the project plans and budgets of project activities realistic, based on valid assumptions, and developed by knowledgeable individuals?	Yes. At the entity level, the budget is prepared by Budget Working Group (BWG) in accordance with set procedures.	
Payment		
4.17 Do invoice-processing procedures provide for: (i) Copies of purchase orders and receiving reports to be obtained directly from issuing departments? (ii) Comparison of invoice quantities, prices and terms, with those indicated on the purchase order and with records of goods actually received? (iii) Comparison of invoice quantities with those indicated on the receiving reports? (iv) Checking the accuracy of calculations?	Yes. Standard procedures for invoice processing are in place to check and process payments	
4.18 Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?	Yes. As soon as payment is cleared all invoices are stamped as PAID for further accounting actions.	
4.19 Do controls exist for the preparation of the payroll and are changes to the payroll properly authorized?	Yes. Payroll is made in accordance with the information in attendance registers.	
Policies And Procedures		
4.20 What is the basis of accounting (e.g., cash, accrual)?	Cash Basis.	
4.21 What accounting standards are followed?	Government Accounting Standards issued by MOF as indicated in the Project Accounting Manual	(PAM for this Project need to be prepared and adopted?)
4.22 Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?	Yes. DPP contains policies to adhere while executing project activities.	
4.23 Is the accounting policy and procedure manual updated for the project activities?	Yes. Standard policies are in place all the project activities are conducted accordingly	
4.24 Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?	Yes. Since the accounting principle is set by the Central Government, the change in policy requires approval of Central Government	In some cases procedures for reporting can be customized / tailored with approval of appropriate authority

Topic	Response	Remarks
4.25 Are there written policies and procedures covering all routine financial management and related administrative activities?	Yes. Delegation of financial power, PAM issued by MoF and other GOB guidelines to be followed.	
4.26 Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?	Yes. Financial rules issued by MOF lays down procedures in this regard	
4.27 Are manuals distributed to appropriate personnel?	Yes	
Cash and Bank		
4.28 Indicate names and positions of authorized signatories in the bank accounts.	Project Director at PMO level and Mayor and secretary or PIU head at IA level	
4.29 Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?	Yes	
4.30 Do controls exist for the collection, timely deposit and recording of receipts at each collection location?	Yes	
4.31 Are bank and cash reconciled on a monthly basis?	Yes	
4.32 Are all unusual items on the bank reconciliation reviewed and approved by a responsible official?	Yes	
4.33 Are all receipts deposited on a timely basis?	Yes.	
Safeguard over Assets		
4.34 Is there a system of adequate safeguards to protect assets from fraud, waste and abuse?	Yes. LGED and respective projects prepare annual stock inventory and annual verifications are done through a committee.	
4.35 Are subsidiary records of fixed assets and stocks kept up to date and reconciled with control accounts?	Yes	
4.36 Are there periodic physical inventories of fixed assets and stocks?	Yes	
4.37 Are assets sufficiently covered by insurance policies?	Insurance policies are done where applicable	
Other Offices and Implementing Entities		
4.38 Are there any other regional offices or executing entities participating in implementation?	Yes. PIUs at PS	
4.39 Has the project established controls and procedures for flow of funds, financial information, accountability, and audits in relation to the other offices or entities?	Yes. PPMS and PMIS established to generate project and financial information and ensure accountability	

Topic	Response	Remarks
4.40 Does information among the different offices/implementing agencies flow in an accurate and timely fashion?	Yes.	
4.41 Are periodic reconciliations performed among the different offices/implementing agencies?	Yes. Done every month / quarter / annually.	
Other		
4.42 Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?	Yes	
5. Internal Audit		
5.1 Is there a internal audit department in the entity?	Yes. LGED has established an internal audit cell since 1984	
5.2 What are the qualifications and experience of audit department staff?	Most staff are qualified and experienced in the field of audit and they also receive regular training.	
5.3 To whom does the internal auditor report?	Chief Engineer, Head of Agency	
5.4 Will the internal audit department include the project in its work program?	Yes. Periodically LGED conducts internal audit of ongoing projects	
5.5 Are actions taken on the internal audit findings?	Yes. Remedial measures are initiated	
6. External Audit		
6.1 Is the entity financial statement audited regularly by an independent auditor? Who is the auditor?	Yes. Foreign Aided Project Audit Directorate (FAPAD) on behalf of C & AG which is constitutionally responsible for conducting external audit.	
6.2 Are there any delays in audit of the entity? When are the audit reports issued?	No. FAPAD has been conducting timely audits and submits the reports on time	
6.3 Is the audit of the entity conducted according to the International Standards on Auditing?	Yes. FAPAD conducts its audits as per international auditing standards.	
6.4 Were there any major accountability issues brought out in the audit report of the past three years?	Issues are brought to the notice of management for follow up and necessary action is taken in order to settle audit observations	
6.5 Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?	FAPAD regularly audits the financial statements and relevant books of the project.	
6.6 Are there any recommendations made by the auditors in prior audit reports or management letters that have not yet been implemented?	No. The management letter and audit findings are regularly monitored and regular follow up is done	

Topic		Response	Remarks
6.7	Is the project subject to any kind of audit from an independent governmental entity (e.g., the supreme audit institution) in addition to the external audit?	Yes. FAPAD sometimes conducts Performance Audit in several projects of LGED	
6.8	Has the project prepared acceptable terms of reference for an annual project audit?	Yes,if needed	
7. Reporting and Monitoring			
7.1	Are financial statements prepared for the entity? In accordance with which accounting standards?	Yes. Financial statements are prepared in accordance with the Government principles of accounting	
7.2	Are financial statements prepared for the implementing unit?	Yes.	
7.3	What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?	Annual Financial Statements are prepared for each project. Yes	
7.4	Does the reporting system need to be adapted to report on the project components?	Yes. Projects implemented by LGED are subject to report in financial matters as suggested in the Loan Agreement	
7.5	Does the reporting system have the capacity to link the financial information with the project's physical progress? If separate systems are used to gather and compile physical data, what controls are in place to reduce the risk that the physical data may not synchronize with the financial data?	Yes. The projects are reporting to different government agencies and donors with a comprehensive summary report on physical and financial targets.	
7.6	Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and how they are to be used?	Yes. PPMS and PMIS lays down the responsibilities and reports to be prepared and their usage.	
7.7	Are financial management reports used by management?	Yes	
7.8	Do the financial reports compare actual expenditures with budgeted and programmed allocations?	Yes	
7.9	Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?	LGED has developed UFMS software and this is being introduced / adopted in different projects. Besides this all other reports are prepared on computer.	
8. Information Systems			
8.1	Is the financial management system computerized?	Same as in 7.9	

Topic	Response	Remarks
8.2 Can the system produce the necessary project financial reports?	Yes. UFMS	Monthly expenditure report by category, payments report on going contracts etc
8.3 Is the staff adequately trained to maintain the system?	LGED has already conducted training in computer software including UFMS. Annually a number of computer courses are being / will be organized for Project Staff on a routine.	
8.4 Does the management organization and processing system safeguard the confidentiality, integrity and availability of the data?	Yes. LGED is committed to appropriate processing of financial and other data and to preserve this important data for future availability and subsequent use.	

2. Financial Management Assessment of Four Pourashavas

Particulars	Findings	Solution / Action
Accounting System	Cash based accounting system; All five pourashavas have implemented the new accounting software system developed by LGED.	
Staffing	Present staff is adequate to cover the existing operations of Pourashavas	
Auditing	Audit status: Galachipa – FY 2010-11 Amtali – FY 2010-11 Pirojpur – FY2007-08 and Mathbaria – FY 2007- 08	Mathbaria Pourashava has written to C&AG's office for conducting the audit of FY2009 to FY2012 vide their letter dated 18 th February 2013 These pourashavas will also need to be covered by FAPAD of CAG as is the case in pourashavas implementing ongoing externally assisted projects.
Weak Financial Situation	At present project pourashavas are spending within their own source of income with minimum revenue grants from GOB. In the absence of full information due to the limitation of cash based accounting system it is difficult to say whether pourashavas revenue is adequate to cover all expenses in a year. Pourashavas dependent on GOB grants and supports to meet its development	

Particulars	Findings	Solution / Action
	expenses.	
Training	Pourashava staff will need to be trained on ADB disbursement procedures	Training will be extended by the project management consultants (PMC) to be recruited under the Project

Source: PPTA Consultant.

B. DISBURSEMENT

20. The Loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2007, as amended from time to time),⁷ and detailed arrangements agreed upon between the Government and ADB.

21. Pursuant to ADB's Safeguard Policy Statement (2009) (SPS),⁸ ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS. All financial institutions will ensure that their investments are in compliance with applicable national laws and regulations and will apply the prohibited investment activities list (Appendix 5) to subprojects financed by ADB.

22. **Types of disbursement procedures.** There are four major types of disbursement procedures:

- (i) Direct payment procedure where ADB, at the borrower's request, pays a designated beneficiary directly;
- (ii) Commitment procedure where 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;
- (iii) Reimbursement procedure where ADB pays from the loan account to the borrower's account, for eligible expenditures which have been incurred and paid for by the project out of its budget allocation or its own resources; and
- (iv) Imprest fund procedure where ADB makes an advance disbursement from the loan account for deposit to an imprest account to be used exclusively for ADB's share of eligible expenditures.

23. The executing agency will be responsible for (i) preparing annual contract award and disbursement projections; (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) preparing and sending withdrawal applications to ADB through the office of the External Resource Division (ERD).

24. **Imprest fund procedure.** Immediately upon loan effectiveness, the Government will open and maintain a first-generation imprest account (FGIA) in the name of the External Resource Division with the Bangladesh Bank. Imprest accounts will be opened separately for Project. The maximum ceiling of the imprest accounts will not, at any time, exceed the estimated ADB financed expenditures to be paid from the imprest account for the next 6 months or 10% of the respective loan amount, whichever is lower. The FGIA will be denominated in US dollars (loan currency). The initial advance or replenishment by ADB into the FGIA will be converted into equivalent Bangladesh taka by the ERD following its policy. The Government will assure ADB that the funds from the imprest account shall be

⁷ Available at: http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf

⁸ Available at: <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf>

transferred to the Project Bank (Second Generation Imprest Account – SGIA) Account within 30 calendar days of the receipt of the advance or replenishment.

25. SGIA account should be one which allows withdrawal of all funds in credit at any time and places no restrictions on the number or amount of withdrawals at any time. Any interest earned on the credit balance in SGIA can be utilized to meet project expenditure. It is clarified that any temporary surplus balances in the SGIA should be retained in the savings account only, and may not be further re-deployed as fixed deposits. The maximum ceiling of each SGIA will be equivalent to 6 months estimated expenditures of the respective Project to be funded from each SGIA or equivalent of 10% of Loan amount, whichever is lower. The request for initial advance to the imprest account should be accompanied by an Estimate of Expenditure Sheet⁴ setting out the estimated expenditures for the first six (6) months of project implementation, and submission of evidence satisfactory to ADB that the SGIA has been duly opened. For every liquidation and replenishment request of the imprest account, the executing agency will furnish to ADB (a) Statement of Account (Bank Statement) from the commercial bank where the SGIA is maintained, and (b) the Imprest Account Reconciliation Statement (IARS) reconciling the above mentioned bank statement against the executing agency's records⁹.

26. The executing agency will be responsible for the use, management, replenishment, and liquidation of the accounts, based on the submission of suitable supporting documentation to the ADB.

27. **Statement of expenditures.** The SOE procedures¹⁰ will be adopted for reimbursement and liquidation and replenishment of the imprest accounts, for eligible expenditures not exceeding \$100,000 per payment. Procedures for establishing and operating the imprest account and SOE procedures are detailed in the Disbursement Letter, which will be issued by ADB's Controller's Department. Original supporting documentation for expenditure claimed under the SOE procedure should be maintained and made available for review by ADB's disbursement and review mission or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit. ADB has designed specific summary sheet formats to facilitate accurate preparation of withdrawal applications. These formats will be provided to the executing agency for implementation.

28. Before the submission of the first withdrawal application, the Borrower should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on their behalf, together with the authenticated specimen signatures of each authorized person.

29. The minimum value per withdrawal application is US\$100,000, unless otherwise approved by ADB. The executing agency will consolidate claims to meet this limit for reimbursement and imprest account claims. Withdrawal applications and supporting documents will demonstrate, among other things, that the goods and/or services were produced in or from ADB members, and are eligible for ADB financing. Withdrawal applications and other loan disbursement information are available at ADB Controller's Department's website <http://lfis.adb.org>.

⁹ Follow the format provided in Appendix 30 of the *Loan Disbursement Handbook*.

¹⁰ Checklist for SOE procedures and formats are available at:
http://www.adb.org/documents/handbooks/loan_disbursement/chap-09.pdf
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-100-Below.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-Over-100.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Operating-Costs.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Free-Format.xls

30. **Disbursement practice.** To expedite disbursement, ADB's Loan Disbursement Handbook has a dedicated section in Chapter 4 on (i) actions to be taken by the Borrower, (ii) basic requirements for disbursement, and (iii) withdrawal application.

C. ACCOUNTING

31. LGED will maintain separate project accounts and records by funding source for all expenditures incurred on the Project. Project accounts will follow generally accepted accounting principles followed in Bangladesh and the accounting standards followed by the Government.

D. AUDITING

32. LGED will cause the project accounts to be audited in accordance with the standards prescribed by the Comptroller and Auditor General of Bangladesh and/or the Institute of Chartered Accountants of Bangladesh applicable to the project, by an independent auditor, whose qualifications, experience and terms of reference are acceptable to ADB. The audited accounts, together with the auditors' report and management letter, will be submitted in the English language to ADB within 6 months of the end of the fiscal year by the executing agency. The annual audit report will include a separate audit opinion on the use of the imprest accounts.

33. SGIA, and the SOE procedures (as applicable). The audit reports should include an assessment of the adequacy of the accounting and internal control systems, the ability to maintain proper and adequate records and documents in support of transactions, and the eligibility of incurred expenditure for ADB financing. ADB retains the right to (i) review and examine any account; and (ii) verify the validity of the certification issued by the executing agency for each withdrawal application.

34. The Government and the executing agency have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited accounts. 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. Further, any critical audit observations on subprojects should be reported to ADB, and action taken also monitored. For revenue generating projects only, ADB requires audited financial statements (AFS) for each executing and/or implementation agency associated with the project.

VI. PROCUREMENT AND CONSULTING SERVICES

A. ADVANCE CONTRACTING AND RETROACTIVE FINANCING

35. Implementation experience in Bangladesh has shown that projects typically face severe start-up delays as a result of recruiting project implementation consultants (for detailed engineering design, preparation of civil works contract tender documents, and project management support) after ADB loan approval. To mitigate this risk, these tasks will be initiated prior to loan approval by means of a new ADB financing instrument known as a Project Design Advance (PDA) financed under the loan and included in the TPP.

36. The recruitment of the PDA consultants for Detailed Design Services (DDS) is underway, and it is anticipated that they will mobilize in November/December 2013. The main tasks of the DDS consultants are as follows:¹¹

- a. Undertaking feasibility studies, including preliminary engineering design; cost estimates of subprojects;
- b. Conducting physical surveys;
- c. Identifying and prioritizing subprojects;
- d. Conducting technical assessments of subprojects;
- e. Undertaking detailed engineering designs, including specifications, drawings, and detailed cost estimates;
- f. Preparation of bidding documents;
- g. Undertaking social and environmental safeguards analysis based on detailed designs and preparation of necessary safeguard documentation; and
- h. Undertaking Development Project Proposal (DPP) preparation for investment project and assisting in approval process.

37. The DDS Consultant will be engaged under the Project Management Unit (PMU) for a total period of five years. However, the consultants will only initially be recruited for the period until 30 Jun 2014, and will be extended to the full term once the project has been approved.

38. The consulting team will consist of four international consultants (50 person-months) and 17 national consultants (371 person-months). The team will be headed by an International Team Leader/ Municipal Infrastructure Specialist supported by a National Deputy Team Leader/ Senior Municipal Infrastructure Design Engineer and other experts.

39. The expected deliverables/ outputs of DSS consultant team include the follow:

- a. Report on feasibility study including preliminary engineering design, cost estimate of each non sample subproject.
- b. List of prioritized subprojects.
- c. Physical survey of each subproject.
- d. Technical assessment of each subproject.
- e. Detailed engineering design including specification, drawing and detailed cost estimate of each subproject.
- f. Modified detailed design including specification, drawing and detailed cost estimate of required subproject if the situation demands.
- g. Bidding document of all sub-project.
- h. Financial, social and environmental safeguard reports.
- i. Approved Development Project Proposal (DPP) for investment project.

¹¹ From TOR in the Request for Proposals for Detailed Design Service (DDS) Consultancy Services under "Project Design Advance (PDA) Project" for Coastal Towns Infrastructure Improvement Project (CTIIP), issued by LGED on 15 May 2013.

B. PROCUREMENT OF GOODS, WORKS AND CONSULTING SERVICES

40. **Procurement guidelines.** All procurement of goods and civil works will be undertaken in accordance with ADB's Procurement Guidelines (January 2013, as amended from time to time). International competitive bidding (ICB) procedures will be used for civil works contracts valued at USD 1.5 million or higher, and goods supply contracts valued at USD 0.5 million or higher. Below the thresholds for ICB, national competitive bidding (NCB) procedure may be used, in which case the procurement will follow the Public Procurement Act, 2006 and Public Procurement Rules, 2008, subject to the following conditions that will be specified in the NCB Annex incorporated in the Procurement Plan (as updated from time to time):

- a) General. The procedures to be followed for national competitive bidding shall be those set forth for the National Open Tendering Method in the Government's Public Procurement Rules, 2008 (as updated and issued pursuant to the Bangladesh Public Procurement Act, 2006) with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the Procurement Guidelines.
- b) Advertising. Bidding of contracts estimated at USD 500,000 or more for goods and related services or USD 1,000,000 or more for civil works shall be advertised on ADB's website via the posting of the Procurement Plan.
- c) Anti-Corruption. Definitions of corrupt, fraudulent, collusive and coercive practices shall reflect the latest ADB Board-approved Anti-Corruption Policy definitions of these terms and related additional provisions (such as conflict of interest, etc.).
- d) Location of Bid Submission. Submission of bids to 'primary' and 'secondary' locations, or 'multiple droppings' of bids, shall not be required or allowed. Advertisements and bidding documents shall specify only one location for delivery of bids.
- e) Rejection of All Bids and Rebidding. Bids shall not be rejected and new bids solicited without ADB's prior concurrence.
- f) Member Country Restrictions. Bidders must be nationals of member countries of ADB, and offered goods must be produced in member countries of ADB.
- g) Lottery. A lottery system shall not be used to determine a successful bidder, including for the purpose of resolving deadlocks.
- h) Qualification Requirements. A successful bidder must be determined by an assessment process that shall include the application of qualification requirements to all bids.
- i) Rejection of Bids. A bid shall not be rejected on the grounds that its bid price is not within a percentage range above or below the contract estimate.

41. The Government's electronic procurement system (eGP) may be used for NCB procurement if approved by, and subject to any conditions of, ADB. Shopping may be used for works and goods contracts worth less than USD 100,000. The detailed procedures for procurement will be described in Project Administration Manual (PAM) to be issued by ADB.

42. **Consulting services.** All consultants, including non-government organizations (NGO), will be recruited according to ADB's Guidelines on the Use of Consultants (March 2013, as amended from time to time). Most consultants will be engaged through consulting firms following the quality- and cost-based selection (QCBS) method with a standard quality/cost ratio of 90/10. Depending on the need for specific discipline of expertise for the project, some individual consultants may be engaged. The detailed procedures will be

described in Project Administration Manual (PAM) to be issued by ADB.

43. NGOs, including community-based organizations (CBOs), may be engaged for certain community-based activities, such as awareness campaigns and resettlement assistance if found necessary and appropriate. For the selection of NGOs, the QCBS procedure will be used for assignments expected to cost more than USD 200,000, and the Consultants' Qualifications Selection (CQS) procedure for assignments of USD 200,000 or less.

44. **Bidding documents.** The government has its own standard documents for procurement of goods and works. These are mainly used for government funded projects. However, these documents follow standard formats similar and comparable to ADB's standard documents, and hence could be used for the project subject to few modifications in conformity with ADB's requirements. Such adjustments would ensure compliance with ADB's policies without making major changes in the existing system or without creating an immediate need for orientation/ training only for the bidding documents.

45. For the recruitment of consultants, the Government of Bangladesh generally follows the development partner's guidelines, and use procurement documents of the funding agency.

46. For the proposed project, the EA/ IAs may:

- (i) follow national standard documents after modifications to be suggested by ADB for the procurement of goods and works following the NCB method under the national act subject to the "conditions" as mentioned above;
- (ii) use ADB's standard bid documents and procedures for the procurement of goods and works following the ICB method; and
- (iii) recruit consultants using ADB's consultant selection documents and guidelines.

47. **Procurement planning.** According to the Public Procurement Laws (PPA) of Bangladesh, it is mandatory for all procuring entities to prepare and regularly update procurement plans. PPA also requires public disclosure of the procurement plan at least annually.

48. The Batch 1 pourashavas (Amtali, Galachipa, Mathbaria and Pirojpur) have prepared a list of works contracts which will be updated and approved based on the availability of funds. Although this list contains basic information required for the mandatory format of procurement plan, all pourashavas under CTIIP should be monitored whether they prepare, regularly update and disclose procurement plans containing all contract packages including those under CTIIP and other projects (when applicable) with a view to establish the standard practice for transparent procurement process. In addition, the procurement plans have to be prepared in ADB's format for CTIIP interventions.

49. For the proposed project, an 18-month procurement plan indicating threshold and review procedures, tentative contract packages, and applicability of national competitive bidding guidelines has been prepared by the PPTA consultants in consultation with EA and concerned IAs. The plan also identifies the responsible agency for each procurement and consultancy contract.

50. **Responsibilities of contract execution.** The Executing Agency, LGED, will implement all contracts for the procurement of goods and works that follow the ICB method. LGED will also be responsible for major goods (such as project vehicles, equipment, etc.) procured centrally using NCB for distribution to the field level. The Department of Public Health Engineering (DPHE) will be involved in the implementation of the project mostly to provide technical expertise in design and quality control of water and sanitation related

infrastructures and interventions.

51. The implementing agencies (pourashavas) will procure all civil works that follow the NCB method and procurement of all goods that follow the shopping method. The packaging of the works contracts will be location-wise, so that each pourashava could independently implement infrastructure schemes within their respective jurisdiction. The project preparatory consultants have identified the following categories of works schemes for each of the target towns: water supply, sanitation, drainage and flood control, roads, bridges, culverts, boat landing stations, cyclone shelters, markets, landscaping, bus terminal, and solid waste management. None of these works are new for local contractors, and it is less likely that international contractors will be attracted for smaller value works in remote areas. However, some of these categories of works schemes may be clustered into groups for procurement packaging purposes, so that the estimated cost of each package remains high enough for attracting better contractors available within the country.

C. PROCUREMENT PLAN

52. Indicative lists of goods and works contracts for which procurement process will commence within first 18 months of the project are shown in **Table VI.1**.

53. **Table VI.2** shows the consultancy requirements. A total of 1,470 consultant person-months has been identified as required for the Executing Agency over a 6-year period; about 161 person-months will be required for international consultants and 1,295 person-months for national consultants.

Table VI.1: Summary of Procurement Plan for Goods and Works

Category	Total No. of Packages	Maximum No. of Contracts (Lots* ¹)	Total Estimated Value of Contracts (USD million)	Comments
Goods	7	7	1.27	Note*2: * Exact value of each contract package yet to be decided subject to availability of adequate funds.
Works				
Works Part-1 (Amtali Pourashava)	7	10	4.65	All NCB contracts.
Works Part-2 (Galachipa Pourashava)	8	12	7.33	All NCB contracts.
Works Part-3 (Mathbaria Pourashava)	8	11	8.84	Includes 1 ICB contract of value USD 3.97 m.
Works Part-4 (Pirojpur Pourashava)	9	14	10.49	All NCB contracts.
Works - Subtotal	32	47	31.31	
Grand Total	39	54	32.59	

*Note*1: The procurement plan for civil works includes 12 packages having 2 or 3 lots. Each lot in a package may be separately awarded to different bidders. However, if a bidder wins all lots in a package, only one contract will be signed for the package.*

Source: PPTA Consultant.

Table VI.2: Summary of Consulting Services

Package		International Inputs (pers-mth)	National Inputs (pers-mth)	Total Inputs (pers-mth)	Estimated Base Cost (\$ million)
1.	Detailed design services consultant team (under PDA arrangement)	50.0	371.0	421.0	3.44
2.	Project management and supervision consultant team	67.0	427.0	494.0	3.74
3.	Institutional strengthening and awareness building consultant team	44.0	168.0	212.0	1.99
4.	NGO team for community mobilization, communication, behavioral change	0.0	343.0	343.0	0.62
Total		161.0	1,295.0	1,470.0	9.79

D. CONSULTANT'S TERMS OF REFERENCE

54. Terms of reference for the consultant and NGO teams are outlined in Appendix E.

VII. SAFEGUARDS

A. Key Safeguard Documents

55. The following safeguard documents were prepared for the project in accordance with ADB's Safeguards Policy Statement (SPS, 2009) and government rules:

- (i) An environmental assessment and review framework (EARF), and
- (ii) A resettlement framework (RF).

56. Consistent with the safeguards frameworks, five Initial Environmental Examinations (IEEs) and XXX Resettlement Plans (RP) were prepared for the proposed Stage I infrastructure interventions.

B. Implementation Arrangements

57. LGED and DPHE will be the executing agencies and the participating pourashavas will be the implementing agencies. Overall coordination of the project, and the primary point of contact with ADB, will be provided by a Project Director (PD) from LGED who will head a Project Management Unit (PMU) in LGED. There will be three Deputy Project Directors (DPD) in the PMU: two from LGED (one for municipal infrastructure, and one for governance and institutional capacity building), and one from DPHE. The PMU will include a Social Development and Safeguards Officer. This person will be supported by one environmental specialist and one resettlement specialist in the PMSC's package, to ensure compliance with all safeguard requirements. Detailed tasks are given below.

58. The executing agencies will provide all the necessary logistic support (vehicle, computers, support staff, etc.) to the PMU in the activities related to environmental and social safeguard implementation and monitoring. The implementing agencies will ensure that bidding and contract documents include specific provisions requiring contractors to comply with all (i) applicable labor laws and core labor standards on (a) prohibition of child labor as defined in national legislation for construction and maintenance activities, on (b) equal pay for equal work of equal value regardless of gender, ethnicity, or caste, and on (c) elimination of forced labor; and (ii) the requirement to disseminate information on sexually transmitted diseases including HIV/AIDS to employees and local communities surrounding the project sites.

C. Environmental Safeguards.

59. Draft Environmental Management Plans (EMPs) were prepared as part of the IEE reports. These are to be included in the bidding and contract documents for civil works. The following are institutional roles and responsibilities to ensure EMPs are implemented during design and construction stages.

60. **Project Management Unit (PMU).** The PMU will have a social development and safeguards officer who will be responsible for safeguards functions. The PMU will also be responsible for implementing and monitoring safeguards compliance activities, public relations activities, gender mainstreaming activities, and community participation activities. The responsibilities of the PMU social development and safeguards officer are to: (i) ensure that the EARF provisions are observed, such as ensuring that works are selected according to the environmental criteria for project selection; (ii) review and approve project IEEs and EMPs; (iii) confirm existing IEE and EMP are updated based on detailed designs; (iv) confirm whether the EMP are included in bidding documents and civil works contracts; (v) provide oversight on environmental management aspects of the project and ensure EMP is

implemented by contractors; (vi) establish a system to monitor environmental safeguards of the project, including monitoring the indicators set out in the monitoring plan of the EMP; (vii) facilitate and confirm overall compliance with all government rules and regulations regarding site and environmental clearances, as well as any other environmental requirements, as relevant; (viii) review, monitor, and evaluate the effectiveness with which the EMP is implemented, and recommend necessary corrective actions to be taken as necessary; (ix) consolidate monthly environmental monitoring reports from PMSC and submit semiannual monitoring reports to ADB; (x) ensure timely disclosure of final IEE/EMP in locations and form accessible to the public; and (xi) address any grievances brought about through the GRM in a timely manner. The monitoring report will focus on the progress of implementation of the IEE and RP, issues encountered and measures adopted, follow-up actions required, if any, as well as status of compliance with relevant loan covenants.

61. **Civil works contracts.** EMPs are to be included in bidding and contract documents and verified by the PIUs and PMU. Contractors are to carry out all environmental mitigation and monitoring measures outlined in their contract.

D. Involuntary Resettlement

62. The draft resettlement framework (RF) and town-wise resettlement plans (RP) are being prepared. The plan will be finalized and updated following the completion of final detailed design. The cost related to land acquisition and resettlement/rehabilitation will be borne by the government. The PMU will ensure that any physically or economically affected persons are compensated prior to displacement in sections ready for construction. The following are institutional roles and responsibilities to ensure the resettlement plan is implemented during design and construction stages.

63. The safeguards officer in the PMU will: (i) ensure that the RF provisions are adhered to and the resettlement plans are updated based on detailed designs; (ii) engage in ongoing meaningful consultations with stakeholders and affected persons, particularly through implementation of the consultation and participation plan; (iii) review, approve, implement and monitor the RPs with support from the consultant (PMSC) and project NGO; (iv) provide timely payments to affected persons before displacement occurs in sections ready for construction; (v) ensure all grievances are addressed and when necessary activate the grievance redress committee; (vi) take corrective actions where necessary, (vii) conduct monitoring of the resettlement process to ensure smooth implementation, and (viii) consolidate monthly/periodic reports by social safeguards and gender specialists in PMSC, ISABC and project NGO, and submit semi-annual monitoring reports to ADB. The monitoring reports should record the progress of resettlement (and GAP) activities and any compliance issues, grievances, corrective actions taken, follow-up actions required and status of compliance with relevant loan covenants.

64. **Project grievance redress mechanism.** The PMU's safeguards officer will establish the grievance redress mechanism (GRM), assisted by PMSC for the entire project, including safeguards, and disclose it to the affected communities and households prior the mobilization of contractors in any subproject areas. The PMU's safeguards officer, supported by the project NGO, will be responsible for timely grievance redress on environmental and social safeguards issues and responsible for registration of grievances, related disclosure and communication with the aggrieved party. Contacts details, procedures and complaint mechanism will disclose to the project affected communities at accessible locations and through various media (i.e. leaflets, newspapers, etc.).

65. **Capacity building.** The PMU's safeguards officer will be further trained by ISABC safeguards specialist and PMSC social safeguards and gender expert on safeguards issues of the project. The targeted participants of safeguards briefings by the consultants would be

LGED/ PMU staff, project local bodies /PIU staff as well as the project NGO. Briefings on safeguards will also be conducted to contractors upon their mobilization by the PIUs.

66. **Civil works contracts.** LGED will ensure that bidding and contract documents include specific provisions requiring contractors to comply with all (a) applicable labor laws and core labor standards on (b) prohibition of child labor as defined in national legislation for construction and maintenance activities, on (c) equal pay for equal work of equal value regardless of gender, ethnicity or caste, and on (d) elimination of forced labor, and (e) the requirement to disseminate information on sexually transmitted diseases including HIV/AIDS to employees and local communities surrounding the project sites. The RPs and gender action plan (GAP) with the contractors' responsibilities highlighted, will be included in bidding and contract documents, verified by the PMU. Contractors will carry out all environmental and social mitigation and monitoring measures outlined in their contract. PMSC will assist the PMU in monitoring contractor's compliance activities.

VIII. GENDER AND SOCIAL DIMENSIONS

67. The Coastal Towns Infrastructure Improvement Project is classified as Effective Gender Mainstreaming. A GAP has been prepared to ensure that gender equality measures are in place during project implementation. The gender and social dimensions of the project will be overseen by the safeguards officer in the PMU and implemented with the support of the PMSC social safeguards and gender expert, and the project NGO. The NGO will provide implementation support as outlined in its TOR, primarily in the following: (1) Creating awareness among the people, especially the poor and vulnerable in disaster-prone, climate vulnerable hotspots about climate change adaptation and disaster risk reduction and preparedness. (2) Conducting a Water, Sanitation and Hygiene (WASH) Campaign among all sections of the population across the four Batch 1 *pourashavas*, to ensure improved health, sanitation and hygiene outcomes. (3) Community mobilization and formation of water and sanitation user groups (WSUG) wherever community facilities are proposed under the project. (4) Awareness creation among the community on the project and its envisaged benefits, potential negative impacts, both temporary and permanent, grievance redress mechanism, entitlements of affected persons, jobs available under the project etc., and (5) Awareness creation on the importance of school attendance for girls and boys and use of health services by disadvantaged groups. In all of the above activities, the NGO will target women as agents of change.

68. The PMU will work closely with and coordinate the activities of the PMSC, ISABC and the NGO to ensure effective implementation of social and gender dimensions of the project. The TOR of the NGO and the TORs for the PMSC social safeguards and gender expert and the ISABC social safeguards specialist, are in Appendix E.

69. The project will create a significant opportunity for people, especially women to improve their situation in terms of health and economic wellbeing in the context of climate change and disaster resilience issues. The project will create opportunities for women, especially from disadvantaged groups, in the areas of better service delivery, and access to economic opportunities. The project creates scopes for raising women's critical awareness of their participation in the design and implementation of development projects.

70. The project has designed opportunities for women's participation in consultation activities as stakeholders and it also promotes women's participation as a group in its planning stage. In broader aspects, the project will help disadvantaged people, especially women and children to be a part of the campaign for creating resilience in the disaster and climate change situation.

71. The project has also created opportunities to share women's views and needs with a new dimension in the coastal belt region, by addressing women's needs in infrastructure development and other issues.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. PROJECT DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Improved access to and delivery of climate resilient municipal services in project pourashavas, and reduction of the occurrence of water-related diseases, with reduced exposure to climate extremes.	By end of project in 2020: <ul style="list-style-type: none"> Economic activity increased. Pourashavas more resilient to climate change as shown by number of people supported by PPCR to cope with effects of CC (PPCR Indicator A1.3). Change in damage/losses (\$) from extreme climate events (PPCR Indicator A1.2). Climate resilient land use and building construction in practice. 	<ul style="list-style-type: none"> Bangladesh demographic and health surveys (BDHS). BBS data. Tax collection/revenue records. Post Disaster Needs Assessment Reports. Quarterly review of building permits/infrastructure development by standing committee on planning, citizen services and development. 	Assumptions <ul style="list-style-type: none"> Municipal finances support increasing demand for urban basic services. Proper O&M system is implemented Climate change related impacts are within predicted levels. Risks <ul style="list-style-type: none"> Improved infrastructure may not be utilized properly, reducing the impact
Outcome Provision of more accessible, reliable and climate-improved services to the population of the project pourashavas.	By end of project in 2020: <ul style="list-style-type: none"> Urban Roads and Bridges: Proportion of climate-resilient roads increased from 0% in 2013 to 17%. Cyclone shelters: Capacity increased from 10% of population in 2013 by 10% to 20%. Solid waste management: Population with collected solid waste increased from 60% in 2013 to 90%. Revenue from Boat landings increased by 25%. Drainage: Duration of backed up/ stagnant water bodies reduced from up to 30 days in 2013 to less than 3 days. Piped Water Supply: average service coverage increased from 39% at present to at least 60% of households within project pourashavas. Sanitation: Coverage of public toilets increased from <1.0 per 1,000 HH in 2013 to at least 1.0 per 1,000 HH. Disaster Risk Management Integrated into Pourashava (PPCR Indicator B1). Climate/DRM Community - Level Finance Mechanism in place (PPCR Indicators B4 and B5) In place (PPCR Indicators B4 and B5). Urban Planning: climate resilient master plans revised and adopted for each participating pourashava. 	<ul style="list-style-type: none"> Pourashava records. Project-specific evaluation surveys Pourashava DRM plans formulated and adopted. Finance mechanism funds dispersal records. Master plans revised and incorporating climate resilience and adaptation measures. 	Assumptions <ul style="list-style-type: none"> Sustained and sufficient revenue is generated. Quality of current raw water sources does not deteriorate. Project is supported by national, divisional and district governments Risks <ul style="list-style-type: none"> Tariff and charges required for O&M are not affordable or socially acceptable. Operation of new infrastructure is technically not sustainable due to limited human resources.
Outputs 1. Improved municipal infrastructure with climate-resilient designs in project pourashavas	Batch 1 Pourashavas (4 no.) Municipal infrastructure (all 4 pourashavas) <ul style="list-style-type: none"> 50 km of urban roads improved. 60,000 no. beneficiaries from road 	<ul style="list-style-type: none"> Records of pourashavas. Quarterly progress and completion reports by LGED. Periodic project monitoring, 	Assumptions <ul style="list-style-type: none"> Raw water sources have sufficient dependable yields Commitment of municipalities is sustained.

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
	<p>improvements (PPCR indicator A1.3)</p> <ul style="list-style-type: none"> 5 no. bridges (80m) upgraded/built. 12 no. boat landing stations 11 no. cyclone shelters 9 no. solid waste transfer stations and 4 no. landfills <p>Drainage and flood control (all 4 pourashavas)</p> <ul style="list-style-type: none"> 44.12 km existing drainage lines improved 5.10 km new drainage lines 5 no. culverts HHs in climate vulnerable hotspots (BPL and FHHs among them) report a 50% reduction in the impact of flooding on their lives (PPCR indicator A1.3). <p>Piped Water Supply (no facilities are proposed for Pirojpur)</p> <ul style="list-style-type: none"> 4 no. production wells, pump houses, electrical and mechanical equipment (Amtali, Galachipa) 1 no. SWTP, intake structure, earthworks, electrical & mechanical equipment (Mathbaria) 3 no. overhead tanks (Amtali, Galachipa, Mathbaria). 114 km transmission and distribution pipes installed or upgraded (Amtali, Galachipa, Mathbaria) 7,260 no. service connections (Amtali, Galachipa, Mathbaria). 10,890 no. of households with new or improved water supply (Amtali, Galachipa, Mathbaria), including all low income HHs (FHHs among them) in project coverage areas (PPCR indicator A1.4) <p>Sanitation (no facilities are proposed for Pirojpur)</p> <ul style="list-style-type: none"> 16 no. public toilets 10 no. school latrine facilities 26 no. community toilets 260 no. households with new or improved sanitation, through implementation of community latrines (PPCR indicator A1.3) Water and sanitation user groups formed and functional at all locations where community facilities provided 	during implementation	<ul style="list-style-type: none"> Water tariffs are adjusted to cover appropriate costs. Sufficient budget will be made available for operation and maintenance of facilities Uptake of provided information by stakeholders and translated into actions Cost of physical improvements by households is affordable. <p>Risks</p> <ul style="list-style-type: none"> Beneficiaries are not willing or cannot afford to connect to the water supply systems. Political issues. Change in the elected officials may affect infrastructure development priorities.
2. Strengthened local governance and institutional capacity for sustainable service delivery, urban planning and disaster risk management	<p>Administrative</p> <ul style="list-style-type: none"> MIS introduced in each town Active TLCCs and WLCCs in each town (at least 30% women participation) 100 staff in the project pourashavas trained (with 10% women trainees) Climate Monitoring and Evaluation System in place at pourashava level (PPCR Indicator B2, B3, B5) Pourashavas adequately staffed with technical, professional and O&M personnel (of which 10% are 	<ul style="list-style-type: none"> Quarterly progress and completion reports by LGED. Urban planning training and briefing curriculum, training reports and post-training evaluations. 	<p>Assumptions</p> <ul style="list-style-type: none"> Key municipal officials receiving necessary skills training remain in their positions. Public participation reflects all segments of community.

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
	<p>women)</p> <p>Financial</p> <ul style="list-style-type: none"> Performance criteria mechanism is being applied to decide future investment strategy. Holding tax revenue increased at least by 5% each year in all project towns. Computerized accounting and tax records introduced. Community level financing mechanism in place and funding community level adaptation (PPCR Indicator B2, B4, B5). Adequate budget provision for O&M for all infrastructure, including that built under the project. <p>Technical</p> <ul style="list-style-type: none"> Effective O&M is practiced for all infrastructure, including that built under the project. Water safety plans are being implemented. Improved downscaled climate outputs and seasonal/long term weather forecasting at local level (PPCR Indicator B3). Applied research on flood inundation patterns and maps in each Pourashava (PPCR Indicator B3). Pourashava development plans that incorporate climate change considerations developed in project towns (PPCR Indicator B1, B2, B3). Active Pourashava Disaster Management Committees. Urban Planners present in each pourashava, with key pourashava officials, elected representatives and TLCC/WLCC members trained and/or briefed in urban planning. 		
3. Awareness raising and behavioral change in community-based climate change adaptation and disaster preparedness, water conservation and hygiene activities.	<ul style="list-style-type: none"> Disaster reduction and management plans are in place (PPCR Indicator B1, B2, B3, B5) Pourashava Disaster Risk Management Committees functional (PPCR Indicator B2) Early warning systems informed by community hazard maps and analysis are in place and cover vulnerable communities (PPCR B1, B2, B3, B5) Campaigns on climate change adaptation, disaster risk preparedness and WASH are carried out annually in project pourashavas (PPCR Indicator A1.3, B1, B2, B3). 50% participants in all awareness campaigns are women Gender action plan is being implemented, with adequate resources. Water conservation plans are being implemented. Hygiene measures are widely 	<ul style="list-style-type: none"> Quarterly progress and completion reports by LGED. Management plans. Disaster Management Committee Minutes. 	

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
	practiced.		
4. Project management and administration support	<ul style="list-style-type: none">▪ Project management system is operational with PMU established in LGED, and PIUs established in each project town▪ Project is implemented on time and within budget▪ Strengthened and functional Gender Units in all 4 pourashavas	<ul style="list-style-type: none">▪ Quarterly progress and completion reports by LGED	Risks <ul style="list-style-type: none">▪ PIUs low capacity for procurement and project management.
Activities with Milestones		Inputs	
Output 1. Improved municipal infrastructure with climate-resilient design in coastal towns 1.1 Mobilization of detailed design consultants under PDA (Q3 2013) 1.2 Bid documents issued for Batch 1 towns (Q3 2014) 1.3 Mobilization of PMSC team to support PMU and PIUs under loan (Q2 2014) 1.4 Mobilization of Institutional Strengthening and Awareness Building TA team (Q2 2014) 1.5 Implementation of civil works in Batch 1 towns (Q4 2014 – Q4 2017) 1.6 For Batch 2 towns, identification of priority infrastructure interventions, and feasibility study and detailed design, conducted by PDA consultants (Q4 2013 – Q2 2015) 1.7 Bid documents issued for Batch 2 pourashavas (Q3 2015) 1.8 Implementation of civil works for Batch 2 pourashavas (Q4 2015 – Q4 2019) Output 2. Strengthened governance and capacity for sustainable service delivery and urban planning 2.1 Strengthening of financial, technical, and institutional capacity to comply with performance criteria, conducted by mobile capacity building teams under PPTA for Batch 1 pourashavas (Q2 2013 – Q1 2014) 2.2 Mobilization of ISABC team (Q4 2013) 2.3 Assistance to Batch 2 towns to comply with performance criteria, by PMSC team (Q2 2015-Q2 2016) 2.4 Strengthening of financial, technical, and institutional capacity improvement by ISABC team for Batch 2 towns (Q1 2015 – Q4 2016) Output 3. Awareness Raising and Behavioral Change 3.1 Mobilization of NGO awareness raising team (Q4 2013) 3.2 Design of awareness and behavioral change campaigns (Q1-Q3 2014) 3.2 Implementation of awareness and behavioral change campaigns in project towns (Q4 2014 - Q4 2018) Output 4. Project management and administration support 4.1. PMU and PIUs established (Q1 2014) 4.2. Project performance management system developed with baseline surveys (Q1 –Q4 2014) 4.3 Monitoring and reporting (Q2 2014-Q2 2020)		Loan and Grant Total: \$115.6 million ADB: \$52.0 million ADB SCF: \$40.5 million Government: \$23.1 million	
ADB=Asian Development Bank, BBS=Bangladesh Bureau of Statistics, BDHS=Bangladesh demographic health surveys, BPL=below poverty line, FHH=female headed households, GIS=Geographic Information Systems, HH=household, ISABC=Institutional Strengthening and Awareness Building Consultant, LGED=Local Government and Engineering Department, MIS=management information systems; O&M=operation and maintenance, PDA=project design advance, PIU=project implementation unit, PMSC=Project Management and Supervision Consultant, PMU=project management unit, SCF=Strategic Climate Fund, SWTP=surface water treatment plant, TLCC=town level coordination committee; WASH=water/sanitation/hygiene, WLCC=ward level coordination committees. Source: PPTA Consultant			

B. MONITORING

72. A project performance management system (PPMS) will be set up in the PMU to display monitoring data received from the PIUs and consultant teams, facilitate project management, and provide the information needed to support decision making and resolving issues.

C. EVALUATION

73. There will be a midterm review at the end of Year 3 (2017). Within 6 months of physical completion of the project, LGED will submit a project completion report to ADB.¹²

D. REPORTING

74. 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 and (d) updated implementation plan for next 12 months; and (iii) a project completion report within 6 months of physical completion of the Project. To ensure projects continue to be both viable and sustainable, project accounts and the executing agency AFSs, together with the associated auditor's report, should be adequately reviewed.

E. STAKEHOLDER COMMUNICATION STRATEGY

75. One of the common failures in the implementation of any development initiative is the lack of effective communication lines between planners, project implementers and target beneficiaries. This concern has been generally recognized and efforts to institutionalize an effective communication strategy have been undertaken in all government development initiatives on all project components.

76. This strategy consolidates the common communication and feedback mechanism already in place, practiced and implemented in several development undertakings in the country. However, an area that must be observed is not on how well the strategy is developed but rather on how the strategy is being utilized and applied in reaching the project objectives.

77. The communication strategy outlined below is characterized by a participatory approach, represented by various stakeholders, aimed at developing a common frame of interest, sharing of resources, and interdependent roles. It is envisioned that this mechanism will lead to the achievement of the following objectives:

1. Common understanding and cooperative efforts in helping maximize the impact and effectiveness of the CTIIP;
2. Develop a sense of responsibility and commitment to increase access of target groups to municipal infrastructure facilities; and
3. Sustained development initiatives such as poverty reduction, gender development and environmental protection.

¹² Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

Objective	Stakeholder Group	Function/Interest in Project	Messages	Means of Communication	Timeline	Responsibility
<p>Ensure people's participation in CTIIP</p> <p>Share and disseminate information on project objectives</p> <p>Resettlement impacts due to project interventions and mitigation, detailed programme and activities</p>	<p>Community leaders, educated groups, civil society religious leaders, representatives of organizations such as educational institutions, health department etc.</p> <p>Community Based Organizations (CBO), water and sanitation user groups (WSUG), women's groups (including poor and disadvantage community), climate vulnerable population, affected persons</p>	<p>Responsible for implementing project activities among project beneficiaries.</p> <p>Responsible for providing feedback on community needs, including poor community and women group,</p> <p>Responsible for organizing groups and mobilizing community support groups (CBOs, WSUGs, women's groups, youth clubs etc.)</p>	<p>Project components and related programs</p> <p>Climate change and resilience issues</p> <p>Project benefits and impacts, entitlements, grievance redress process, roles and responsibilities of pouroshava and PMU, NGO and CBOs Water, sanitation, health and hygiene related issues, service delivery quality and maintenance issues</p> <p>Social protection issues e.g school enrolment and attendance, use of health services by disadvantaged groups</p>	<p>Community-led campaigns</p> <p>Promotional/ information - educational materials on project issues developed for distribution / display</p> <p>Community meetings and information sharing within target groups</p> <p>Web disclosure</p>	<p>From beginning of project to implementation stage</p>	<p>Project Proponents</p> <p>Project Management Unit (PMU), pouroshavas/ PIUs, project NGO</p>
<p>Establish a regular communication and feedback system between all stakeholders in a systematic way (among project</p>	<p>Project designers and planners, proponent agencies (LGED, DPHE) BWDB, BIWTA, DC and UNO) NGOs other local</p>	<p>Agencies with responsibilities related to different project components/related</p> <p>Responsible for operations and maintenance</p>	<p>Objectives of the project; roles and responsibilities of each stakeholder</p>	<p>Workshops/Seminars</p> <p>Meetings</p>	<p>Regular scheduled stakeholder coordination</p>	<p>PMU Project pourashavas</p>

<p>planners/ designers/ , relevant line agencies and partners and CBO groups)</p> <p>Formation of city level coordination committees (reporting to Project Steering Committee)</p>	<p>officials DOA, DOE government Agencies Contractors Business groups representative of companies</p> <p>Representatives of local offices of project proponents and other stakeholder agencies</p> <p>Community groups including women</p>	<p>NGOs and pourashava are responsible for promoting community welfare and other socioeconomic development</p> <p>Provide financial, manpower and programs</p>			<p>meetings –once a month</p> <p>Meetings until project implementation stage; later, quarterly or as per needed</p>	
<p>Create a functional Information Centre at field level to act as focal place for dissemination of project information</p>	<p>WUSGs/ CBOs / community leaders women groups and NGO</p>	<p>pourashava officials and WUSG/CBO group and community leaders are responsible for prioritization of community needs</p> <p>Responsible to promote upgrading of sanitation facilities for poor households, community latrine/tap use and maintenance issues</p>	<p>Project design, key project benefits, implementation arrangement</p> <p>Climate resilient infrastructure. Schedules of civil work.</p> <p>Information dissemination on all infrastructure , health hygiene issues</p> <p>Benefits of climate change and resilience issues</p>	<p>WUSG, CBOs and community leaders, health workers from pourashava and NGOs</p> <p>Project information and promotional materials</p> <p>Summary of project documents /Master plan translated into simple Bangla</p> <p>Promotional materials developed on water, sanitation, health and hygiene issues</p>	<p>Communication to continue extending beyond the project.</p>	<p>Pourashavas</p>

Establish a pourashava level citizens communication collaborative (CCC)	community members and leaders , women's groups, WSUG, CBOs	Responsible to manage community based water management service promote community – based development initiatives Take action on community issues awareness issues will be delivered at community level	Key benefits of project water, sanitation, Improvement of drainage, road and cyclone shelter, community / public toilet use and maintenance	Courtyard meeting workshop	Continuous activity throughout project	Pourashava NGO Citizens
Ensure regular communication on Gender Action Development (GAD)	Pourashava Gender Unit, WSUGs, CBOs, women's groups, NGOS and gender advocates	Gender Unit is responsible for mainstreaming gender at all levels Play a major role in community mobilization and health education, water and sanitation, health training support and micro credit access Developing capacity of women in decision making process through participation in project related activities	Water conservation and appropriate use, Improve health condition and education on water borne disease, Health practice at household and community level	Formal and informal discussions with the beneficiary groups and meetings	Form at outset of project extending beyond project	Pourashava CBOs, WUSG, community leaders
Ensure regular flow of communication of project information to specific group	Youth organizations of community and town	Youth participation in the project activities with the community on water, sanitation practice, solid waste management, climate change and disaster issues	Project benefits, climate change and disaster preparedness issues participation in community awareness programme	Public meetings, Sanitation and hygiene education meetings Sharing of educational materials prepared by NGOs	Beginning of project	Formal and informal youth organizations

Ensure level of knowledge on risk of HIV and AIDS transmission	Communication in project areas, civil works, employee, sub-contractors and labor especially women who work as labour	Communities are responsible for management of water supply, sanitation solid waste management, awareness on health and hygiene, climate resilient adaptation mechanism and environment protection	Key risks, avoidance and mitigation of the risks and prevention	Distribution of Information material in simple language and drama/ Film show/ follow TV programme on HIV/ AIDS issues	Prior to commencement of project implementation; to continue until project duration	Pourashava NGOs
Establish and engage CBO/WSUG members for monitoring coverage of information, identify gaps for follow up actions	Community leaders Community residents Community support groups Community based water management and Health and sanitation awareness group	Responsible to ensure sources of water, Sanitation access, solid waste management practice Monitor quality of water, process of maintenance of other components Supply water and sanitation access to the poor communities Manage community-based water sources	Advisory on water services and cost of water supply Cost of maintenance of community /public latrine, solid waste management Operations and maintenance of the project components and CBWM	Posters, Announcement community meetings	Monthly activities extending beyond project life	Community leaders CBWM

LGED = Local Government Engineering Department . DPHE=Department of Public Health and Engineering , BWDB= Bangladesh Water Development Board , BIWTA= Bangladesh Inland Water Transport Authority, DC= Deputy Commissioner, CBWM: community-based water management; WSUG: water and sanitation user group, CBO: community based organization ; GAD: gender Action Development; NGO: non-government organization;; PMU: project management unit .

X. ANTICORRUPTION POLICY

78. ADB's Anticorruption Policy (July 1998 as amended to date) was discussed with the Government and Executing Agencies. During the preparation of Risk-based reports such as the *Risk-Based Assessment of Governance Issues and Risk Management Plan*, *Procurement Risk Assessment and Risk Assessment Plan*, and *Assessment of the Procurement Capacity of the Water Districts*, Key Officers were informed of the serious concerns of the ADB regarding governance or corruption issues.

79. Consistent with the commitment of ADB to good governance, accountability, and transparency, ADB reserves the right to investigate, directly or through its agents, any alleged corrupt, fraudulent, collusive, or coercive practices relating to this Project. To support these efforts, relevant provisions of ADB's *Anticorruption Policy* are included in the loan regulations and the bidding documents for this Project. In particular, all contracts financed by ADB in connection with this Project shall include provisions specifying the right of ADB to audit and examine the records and accounts of the Executing Agency and all contractors, suppliers, consultants, and other service providers as they relate to this Project.

XI. ACCOUNTABILITY MECHANISM

80. People who are, or may in the future be, adversely affected by the project may address complaints to ADB, or request the review of ADB's compliance under the Accountability Mechanism.¹³

¹³ For further information see: <http://compliance.adb.org/>.

XII. RECORD OF PAM CHANGES

81. {All revisions/updates during course of implementation should retained in this Section to provide a chronological history of changes to implemented arrangements recorded in the PAM.}

APPENDIX A

Loan No._____ - BAN: Coastal Towns Infrastructure Improvement Project CTIIP

PROCEDURE FOR ESTABLISHING AND OPERATING THE IMPREST ACCOUNT

DEFINITION

Whenever used in this **Appendix**, unless the context otherwise requires, the several terms defined in the Loan Agreement dated _____ between Bangladesh and the Asian Development Bank (ADB), and in the ADB's ADF Loan Regulations.

IMPREST ACCOUNT FOR LOAN PROCEEDS

For the purpose of this Project, after the Effective date, the Borrower shall establish immediately an Imprest account at the Reserve Bank of India. The Imprest Account shall be established, managed, replenished and liquidated in accordance with the ADB's Loan Disbursement Handbook of January 2007, as amended from time to time.

ELIGIBLE EXPENDITURES

Payments out of the Imprest Accounts will be made exclusively for eligible expenditures in accordance with the provisions of Schedule 3 of the Loan Agreement.

ACCOUNT NAME AND AUTHORIZATION FOR WITHDRAWALS

The Imprest Account will be opened and maintained at the Bangladesh Bank in the name of the Borrower. The person or persons duly authorized by the Borrower for making withdrawals from the Loan Account will be responsible for operating the Imprest Accounts and making withdrawal applications and payments therefrom.

INITIAL ADVANCE AND CEILING

ADB will, after the Effective Date, on the basis of a Withdrawal Application-Imprest Fund (Form ADB-IFP) and Estimate of Expenditure Sheet (ADB-IFP-EES) from the Borrower setting out the estimated expenditures for the first six months of project implementation, and submission of evidence satisfactory to the ADB that the Imprest Account has been duly opened, withdraw from the Loan Account and deposit into the Imprest Account an initial amount not exceeding the (i) the estimated six months expenditures of the project, or (ii) equivalent of ten (10) percent of the loan account, whichever is lower.

LIQUIDATION AND REPLENISHMENT

The Borrower / Executing Agency (EA) will furnish to ADB in respect of all payments out of the Imprest account the duly filled in Form ADB-IFP and Summary Sheet (ADB-IFP-SS) together with such supporting documents and other evidence as ADB will reasonably request, showing that each payment was made for eligible expenditures. ADB agrees to the use of Statement of Expenditure (SOE) procedure for replenishing or liquidating payment of eligible expenditures incurred not exceeding the equivalent of US \$100,000 per individual payment.

The Borrower / EA will also furnish to ADB, a) the Statement of Account (bank statement) prepared by the Reserve Bank of India; b) Imprest Account Reconciliation Statement (IARS) reconciling the above mentioned bank statement against the records of the Borrower / EA.

ADB may, at any stage, by notice to the Borrower / EA suspend further replenishments to the Imprest Account if any of the provisions of this Appendix is not complied with.

ACCOUNTS AND RECORDS

The Borrower / EA will ensure that all amounts received for, or in connection with the Imprest Account and amounts withdrawn therefrom, are recorded in a separate account in accordance with generally accepted accounting principles. The Borrower / EA will retain until one year after the closing date of the withdrawals from the Loan Account all accounts and records including orders, invoices, bills, receipts and other original documents evidencing the expenditures paid out of the Imprest Account, and will enable ADB's representatives to examine such accounts and records during disbursement and project review missions.

AUDIT

The Borrower / EA will cause an adequate independent auditor acceptable to ADB to annually audit the Imprest account and records referred to paragraph ____ above, and submit to ADB certified copies of audited accounts and related financial statements and the report of the auditor not later than nine (9) months after the end of each related fiscal year. The audit should be carried out as part of the regular annual audit of EA's account. An opinion on that part of the examination relating to the Imprest Account and SOE should be separately set out in the auditor's report.

INELIGIBLE OR UNJUSTIFIED PAYMENT

Where any withdrawal or payment from the Imprest Account is determined by ADB (i) to have been utilized for any purpose not eligible, or (ii) not justified by the evidence furnished pursuant to Schedule 3 of the Loan Agreement, the Borrower will, prior to any replenishments, deposit to the Imprest Account an amount of such ineligible payment in the same currency as the Imprest advance. Alternatively, such ineligible expenditure may be adjusted by other practical means, such as deducting them from the amount of next replenishment to the Imprest fund.

CLOSING THE IMPREST ACCOUNT

Notwithstanding the provisions of paragraphs 6 and 7 above, when ADB will have determined that the project components to be financed with the payments from the Imprest Account are near completion, ADB may reduce the amount of any replenishment, as ADB may deem appropriate with a view towards gradually closing the Imprest Account.

OTHER PROCEDURES

For matters not covered in this Appendix, the guidelines set forth in ADB's Loan Disbursement Handbook will apply.

APPENDIX B

Loan No. _____ - BAN: Coastal Towns Infrastructure Improvement Project CTIIP

STATEMENT OF EXPENDITURES (SOE) PROCEDURE

DEFINITION

Pursuant to paragraph ____ of Schedule 3 of the Loan Agreement, SOE procedure can be used whereby an application for reimbursement of liquidation of the Imprest Accounts supported by the statement of expenditures, in lieu of the normal full documentation. Under the SOE procedure EA is required to submit to ADB together with the Withdrawal Application (ADB-IFP), a statement of expenditures (ADB-SOE-SS), duly certified by persons authorized to sign withdrawal applications. The SOE form would be submitted in place of the usually required supporting documents such as invoices, contractors' bills, bills of lading and / or other related documents.

SOE LIMIT

SOE procedure will be used in respect of payments out of the Imprest Account for eligible expenditures not exceeding the equivalent of US \$100,000 per individual payment.

SUPPORTING DOCUMENTS

The SOE, a special reimbursement procedure of ADB has been approved on the condition that all relevant supporting documents will be retained and will be made available for examination by the ADB's representatives during field missions or upon ADB's request for submission of supporting documents on a sampling basis. In addition EA is required to maintain proper accounting records of SOE expenditures to facilitate verification of these expenditures against supporting documents.

INELIGIBLE EXPENDITURES

Where ADB subsequently finds any payment made under the SOE procedure to be insufficiently supported or ineligible for ADB financing, ADB may offset the amount of the unjustified or ineligible payment against subsequent withdrawals for reimbursement or request the Borrower to refund the same amount to the loan account.

AUDIT

The SOE records must be audited regularly by Independent and qualified auditors acceptable to ADB. The audit is carried out as part of the regular annual audit of the EA's accounts. The auditor's opinion of that part of the examination relating to the SOE procedure should be separately set out in the auditor's report.

○ ACCOUNTING

ADB requires EA to maintain separate project accounts and records exclusively for the Project to ensure that the loan funds were used only for the objectives set out in the Loan Agreements. The project accounts comprise the following:

- Statement of Accounting / Financing Policies;
- Statement of Income / Cash Receipts;
- Statement of Expenses / Cash Payments;

- Cash Flow Statements;
- Imprest Account Statement;
- Statement of Expenditures (SOE) and
- Notes to the Financial Statements

The first set of project accounts to be submitted to ADB covers the fiscal year ending 30 June _____. As stipulated in the Project Agreement the accounts are to be submitted upto nine months after the end of the fiscal year.

The accounts and records for the project are to be consistently maintained by using sound accounting principles. External auditor has to express an opinion on whether the financial report has been prepared using international or local generally accepted accounting standards and whether they have been applied consistently.

○ **AUDITING**

Project accounts, as per requirement of ADB, are to use international accounting standards prescribed by the International Accounting Standards Committee. External auditor has to comment on the impact of any deviations, by the project from international accounting standards.

Auditor's report should specify the appropriate auditing standards adopted as well as the key audit procedure followed. Report should also state whether same audit procedures have been followed for all supplementary financial statements submitted. Report should mention the differences between the auditing standards followed and international auditing standards and their impact on audit.

External auditor in his report should give his opinion whether

- the proceeds of the ADB's loan have been utilized for the project as stated in the Loan Agreement;
- the financial information contains data specifically agreed upon between Bangladesh and ADB to be included in the financial statements;
- the financial information complies with relevant regulations and statutory requirements;
- compliance has been met with all the financial covenant contained in the Loan or Project Agreements;
- Imprest Account / Second Generation Imprest Account(s) funds have been correctly accounted for and
- Document and controls in the use of the Statement of Expenditure (SOE) procedure are adequate.

Please refer to **Appendix** ____ for a model Audit Opinion for a non-revenue earning project.

Auditor's Report should clearly state the reasons for any opinions that are qualified, adverse or disclaimers.

Action on deficiencies disclosed by the external auditor in their report is to be resolved by the LGED within a reasonable time. The external auditor has to comment in the subsequent Auditor's Report on the adequacy of the corrective measures taken by the LGED.

Auditor should also provide or issue a Management Letter with reference to the EA. This is a report on the internal controls and operating procedures of the EA, covering all aspects

included during the normal course of the audit. This should be submitted together with the audited project accounts.

APPENDIX C

Accounting Statements and Financial Reports

Accounting Statements	Non-Revenue Earning Projects and Executing Agencies		Revenue Earning Projects and Executing Agencies	
	Interim (PMRs)	Annual Audited	Interim (PMRs)	Annual Audited
Statement of Accounting / Financial Policies	-	Yes	-	Yes
Statement of Income (Cash Receipts)	Yes	Yes	-	-
Statement of Expenses	Yes	Yes	-	-
Cash Flow Statement	Yes ¹	Yes ¹	Yes	Yes
Imprest Account Statement	Yes	Yes	Yes	Yes
Statement of Expenditures (SOE)	Yes	Yes	Yes	Yes
Income Statement	These statements are usually not prepared as most non-revenue generating projects currently use cash basis of accounting		Yes	Yes
Balance Sheet			Yes	Yes
Notes to Financial Statements	Yes ²	Yes ²	Yes ²	Yes ²
Other Information	Yes ³	Yes ³	Yes ³	Yes ³

Notes:

1. The contents and format of Cash Flow Statements for non-revenue earning projects (and EAs) will not necessarily conform to international accounting standards or to national accounting standards.
2. The notes to the financial statements provide further breakdowns or explanations of the information provided in the main financial statements.
3. The scope and nature of other information to be provided will be negotiated between ADB and Borrower.

Statement of Accounting or Financial Policies

As discussed in paragraph ____ and irrespective of whether the cash or accrual basis of accounting is used, a clear statement of the accounting or financial policies that underlie the accounting statements must be provided.

Statement of Income (or Cash Receipt)

Shows the year's complete financial information, and cumulative data from project start up to date. Where the cash basis of accounting is followed, the opening and closing balances should be shown. ADB financing should be subdivided as follows when ADB disburses via

SOE procedures (a) by expenses category in the loan agreement, RRP, revisions thereto; b) disbursements via SOE; and c) other methods.

Statement of Expenses (or Cash Payment)

Shows the financial year's information and cumulative totals from project start up-to the current date. Where the accrual basis of accounting is used, this statement will include non-cash items, such as depreciation.

Cash Flow Statement

The Cash Flow (or project funds) Statement should include:

- Sources of project financing (for e.g. ADB, Government contribution, etc.), and by methods of disbursement by ADB (for e.g. direct payment, imprest account etc.);
- Uses of funds summarized under project disbursement categories as per the loan agreement (for e.g. equipment, civil works, consultant services and training and "others" which further be sub divided following start of project implementation);
- The opening and closing cash balances; and
- In accordance with IAS7, separate disclosure is required of funds that are not available for use, such as confirmed future commitments.

Imprest Account Statement

This statement summarizes ADB's advances and replenishments, less amounts withdrawn by the EA, showing the remaining cash balance in the Imprest Account.

Bank statements should be provided by each local bank that is selected to operate each imprest account, where these are in use for the project. Each bank statement should summarize the current year's advances and replenishments, interest earned on balances, less withdrawals for project expenditures. The first account is used to receive money from ADB for the credit of the "Project Imprest Account" and the second may be used by the project for local operating purposes ("Second Generation Imprest Account" - SGIA). The Project Imprest Account is used to replenish the SGIA, when this is in use. It will be necessary to attach "Reconciliation Statements" to reflect in-transit items between ADB and Imprest Account and between Imprest Account and the SGIA. (Replenishments made by ADB not yet received; and reimbursements to the SGIA from the Imprest Account not yet received by it). The third financial statements is a detailed statement of transactions of the Imprest Account's Operating Account(s). This is to be generated by the EA, where the Imprest Account is used to make payments in local currency and foreign currency.

Statement of Expenditure (SOE)

The Statement of Expenditures (SOE) procedure is an ADB reimbursement procedure that does not require submission of supporting documentation. The SOE form should include certification, confirming existence of registration for mobilization and secured advances / deposits. The ADB Loan Disbursement Handbook describes the use of this method and associated reporting and auditing procedures.

Income Statement and Balance Sheet

These statements may not be necessary where cash accounting is used.

Notes to Financial Statements

EA should provide Notes to financial statements. These should be explanatory notes and / or supplementary financial statements that analyze or qualify important heads of account, or that present the information in conformity with generally accepted accounting principles of the country. For example, if Statements are prepared on a “cash basis”, information may be required from the EA to convert key items to an “obligation” or “accrual” basis and ADB, therefore, may seek details relating to obligations (unpaid commitments and accounts receivables) in supplementary statements. Similarly, details may also be required to distinguish between transactions relating to capital (development) investments and operating expenditures.

Other Information

Financial reports on a project, as per requirement ADB, should illustrate both the performance in the fiscal year under review and accumulated transactions from project commencement particularly with regard to sources of funds and expenditures for assets and inventories.

Reporting practices in some government entities require only disclosure of annual financial transactions against annual budget authorizations. Therefore, in order to monitor performance from start up throughout the project's implementation period, the reported results of project transactions and financial performance data for previous fiscal years should be included as memorandum entries in the current year's Statement of Income (Cash Receipts) and Statement of Expenses (or Cash Payments).

Alternatively, the reported results of prior years may be included in the annual financial statements as of the last day of the reporting fiscal year that summarizes and classifies all receipts and expenditures relating to the project from its commencement. In addition, the accumulated sources or provision of funds for the project in the ratio agreed upon between the borrower and ADB should be disclosed in the Notes to the financial statements.

APPENDIX D

Model Audit Opinion for a Non-Revenue-Earning Project

To: Borrower (or designated agency)

We have audited the accompanying financial statements (Pages----- to _____) of the _____ Project financed under the Asian Development Bank Loan # _____ as of December 31, 20____, and for the year then ended.

These financial statements are the responsibility of the management of the _____ EA.

Our responsibility is to express an opinion on the accompanying statements based on our audit.

We conducted our examination in accordance with International Standards on Auditing. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of misstatement. Our audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. Our audit also includes assessing the accounting principles and significant estimates made by management, as well as evaluating the overall statement presentation. We believe that our audit provides a reasonable basis for our opinion.

The _____ (EAs) policy I to prepare the accompanying statements in the format agreed between the Asian Development Bank and the Government of Bangladesh as noted in the Minutes of Negotiations for the Loan, [on a cash receipts and disbursements basis in which cash is recognized when received and expenses are recognized when paid, rather than when incurred] / [on an accruals basis in which expenses are recognized when incurred and revenue is reported when income is due.]

In our opinion, (A) the aforementioned financial statements and appended notes that were also the subject of the audit, fairly present in all material respects the financial position of the _____ project as at _____ 20____ and the results of its operations for the year ended _____ 20____, in conformity with _____ accounting standards, applied on a basis consistent in all material respects with that of the previous year; (B) the [Borrower] [EA] has utilized all proceeds of the loan withdrawn from the Asian Development Bank only for purpose of the project as agreed between the Asian Development Bank and [the Borrower] in accordance with the Loan Agreement; and no proceeds the Loan have been utilized for other purposes; and (C) the [Borrower] [EA] was in compliance as at the date of balance sheet of the year of audit with all financial covenants of the Loan Agreement. In addition:

- 1) With respect to Statements of Expenditures, adequate supporting documentation has been maintained to support claims to the Asian Development Bank for reimbursements of expenditures incurred; and (2) which expenditures are eligible for financing under Loan Agreement No. _____.
- 2) The Imprest Account (Page____) give a true and fair view of the receipts collected and payments made during the year ending _____; and (2) these receipts and payments support Imprest Account liquidations/replenishments during the year.
- 3) [(a) and (b), above, are to be provided where Loan Agreement requires separate Imprest Account and Statement of Expenditures audits and audit opinions.]

APPENDIX E: TERMS OF REFERENCE FOR CONSULTANT AND NGO TEAMS

- (i) Project Management and Supervision Consultant (PMSC) team**
- (ii) Institutional Strengthening and Awareness Building Consultant (ISABC) team**
- (iii) Community Mobilization, Communication and Behavioral Change (CMCBC) NGO team**

DRAFT OUTLINE TERMS OF REFERENCE FOR PROJECT MANAGEMENT AND SUPERVISION CONSULTANT TEAM

A. OVERVIEW

The ADB assisted Coastal Towns Infrastructure Improvement Project (CTIIP) is designed to improve and expand municipal infrastructure and related services in selected *pourashavas* (municipalities) in coastal areas of Bangladesh, incorporating climate change resilience measures. The low-lying deltaic coastal area of Bangladesh is highly vulnerable to severe weather events such as tropical cyclones in the Bay of Bengal and storm/tidal surges, resulting in extensive flooding, backup of sewage, wind damage and loss of human lives. Existing urban infrastructure in *pourashavas* such as water supply systems, sanitation facilities, roads, bridges and boat docking stations is generally inadequate, and suffers a great deal of damage during such events. Modeling studies (conducted during the PPTA) indicate that cyclones will intensify in the future owing to increased sea surface temperatures in the Bay of Bengal and sea level rise is expected to exacerbate the vulnerabilities of coastal towns. The impacts of climate change on coastal towns are anticipated to be significant.

The aim of CTIIP is to build climate proof infrastructure and resilient communities. The Project is proposed to be financed through a sector loan from ADB; the first batch of 4 towns includes Amtali, Galachhipa, Pirojpur and Mathbaria; and it is estimated there will be 4 towns for Batch 2 (to be selected). Complementing the physical infrastructure components will be project management consultancy support, institutional development and capacity building consultancy support and NGO support for community mobilization, communication and awareness raising on climate change adaptation and resilience building, hygiene and behavior change.

B. OBJECTIVES OF THE CONSULTING SERVICES

The Government of Bangladesh (GOB) intends to procure the services of a reputable consultant ("the Consultant") to provide project management and supervision services to support the Project Management Unit (PMU) in the Local Government Engineering Department (LGED) for the implementation of the ADB-funded Coastal Towns Infrastructure Improvement Project (CTIIP). The purpose of the PMU is to manage, coordinate and monitor project activities.

The services will provide support to the LGED (as Executing Agency and Project Proponent) for project management and administration, construction supervision and quality control, municipal services operation and maintenance (particularly for water supply), monitoring and evaluations, and other activities as appropriate.

The Consultant should liaise closely with the Detailed Design Service (DDS) consultants engaged under the Project Design Advance (PDA) for CTIIP, and other technical assistance teams to support project implementation activities.

C. SCOPE OF WORK

Project management and administration: The Consultant's tasks include, but are not limited, to:

- (i) maintain a master schedule of all project activities and monitor performance against progress, identifying problem areas and working with PMU and implementing agencies to solve these problems,
- (ii) assist the PMU in financial management of the project including oversight of project accounting, monitoring financial performance of the project and preparation of reports as necessary,
- (iii) ensure compliance with quality and best practices of consultancy services and physical works carried out by contractors (this work would include design review and checking responsibilities),
- (iv) advise on procurement related matters,
- (v) coordinate activities with other consultants or NGOs working for the EA to ensure optimal and effective utilization of resources,
- (vi) review specific reports, with special regard to environmental and social development activities, and forward a copy to ADB,
- (vii) ensure compliance with all relevant ADB policies and guidelines,
- (viii) monitor compliance with loan covenants using the Project Performance Management System (PPMS),
- (ix) prepare periodic reports, such as progress and audited financial reports, to PMU and ADB as required.
- (x) updating of safeguards reports in accordance with ADB's SPS based on detailed designs and simultaneously start the process of complying GOB safeguards requirements; submit updated safeguards reports to ADB for review and approval prior to contract award;
- (xi) assist with social safeguards/ resettlement implementation and compliance,
- (xii) supervise the implementation of safeguards mitigating measures required for the construction activities; review, monitor and evaluate the effectiveness of the implemented Contractor's environmental management plans (CEMP), and recommend necessary corrective actions.

The Consultant will assist the PMU with the design and implementation of a PPMS based on indicators included in the project loan agreement. These indicators and associated targets will be disseminated to the participating implementing units of the pourashavas and used to guide the preparation of implementation action plans, community awareness programs and financial improvement plans. The plans will include the development and operation of an information system to collect and analyze information required for inclusion in the PPMS. Baseline data should be available at the end of the first full year of project implementation and a complete set of indicator results for each subproject by the end of the second year.

Construction supervision and quality control: The Consultant's tasks include, but are not limited, to:

- (i) conduct overall quality control of works constructed under the project;
- (ii) assess payment requests from contractors, and advise on measures to be taken to achieve quality work in conformity to the contract specifications;

-
- (iii) examine the contractor's facilities, recommend improvements, to ensure that these facilities conform to the agreed contract documents;
 - (ii) examine the contractor's proposed work methods, recommend improvements, including but not limited to examining and approving occupational health and safety procedures;
 - (iii) assess the adequacy of materials, equipment and labor provided by the contractors, the contractor's methods of work, and rate of progress and (where required) recommend appropriate action to the pourashava authorities to expedite progress;
 - (iv) examine the contractor's plans defining the location of the crushing and aggregate processing plants and the like, recommend improvements;
 - (v) examine all implementation plans and working drawings prepared by the contractor, recommend improvements;
 - (vi) issue all necessary instructions to the contractor, and examine and control the work to ensure that these are carried out according to the contract documents;
 - (vii) provide general guidance to the contractor as may be necessary to ensure that the works are carried out according to schedule and within the terms of contract;
 - (viii) ensure that the contractors have prepared the Contractor's environmental management plans (CEMP) prior to actual construction; supervise the implementation of environmental mitigating measures required for the construction activities;
 - (ix) inspect all working areas and installations during the execution of the works;
 - (x) compute quantities of works and materials, which have been accepted and approved, and examine and certify contractor's payment requests;
 - (xi) report monthly on the progress of the works, the contractors' performance, quality of works, and the subproject's financial status and projections;
 - (xii) prepare monthly, quarterly, and semi-annual environmental monitoring reports; semi-annual environmental monitoring report to be submitted to ADB and the EA.
 - (xiii) ascertain and agree with the contractor all work measurements and review, and recommend payment claims and certify these to the pourashava authorities as being correct and within the terms of the contract;
 - (xiv) record the results of measurements carried out for quantities to be paid for the provisional and final accounting, on forms normally used in Bangladesh;
 - (xv) advise the client on any environmental recommendations to overcome possible problems encountered;
 - (xvi) review, monitor and evaluate the effectiveness of the implemented CEMPs, and recommend necessary corrective actions; assist the pourashava authorities in the implementation of the Grievance Redress Mechanism during construction;
 - (xvii) review the following contractor's documents and recommend appropriate action to the pourashava authorities, as necessary: periodic progress reports, quality-testing results, requests for variation, contractor's claims, and contractor's invoices;
 - (xviii) alert the pourashava authorities to any problems that arise in connection with the contractor and make recommendations for solving them;

- (xix) assist the pourashava authorities in any dispute that may arise with the contractor and give a firm opinion on any claim the contractor may put forward, by drawing up a report which includes all the elements on which the judgment is based;
- (xx) carry out an inspection upon completion of works and recommend on maintenance during defect liability period; and
- (xxi) ensure that 'as-built' drawings are prepared for all works as construction progresses.

Water supply operation, maintenance and installation supervision: The Consultant will implement the most appropriate operation and maintenance strategies in order to make pourashava water supply systems safe and sustainable. The Consultant will provide theoretical classroom training and on the job training to relevant pourashava staff on important O&M topics to include, but are not limited to:

- (i) Review and study existing O&M capability in Pourashava;
- (ii) Institutional development: objective, organizational, non-revenue water management;
- (iii) Pump operation & maintenance - withdrawal & lowering of pumps in production wells, dismantling & assembly of submersible pump sets, pump & well monitoring, well regeneration etc.
- (iv) SWTP (surface water treatment plant) operation & maintenance - coagulation, flocculation, sedimentation, filtration, sludge removal, backwash etc; preparation of specification of chemicals needs for water treatment and disinfection.
- (v) Water quality monitoring, disinfection and implementation of water safety plan;
- (vi) Production and distribution operation - standard and techniques of service connections, water meter specification, pipe joint, cleaning & disinfection of pipelines, understanding NRW & loss reduction activity, pipe repair standards & procedures, basic supervision practices etc.

D. CONSULTANTS INPUT AND STAFFING REQUIREMENTS

The breakdown of consultant inputs is as follows:

Name of Positions	Person-months	
	International	National
<i>Output 4: Project Management and Administration Support</i>		
1. Project Management Specialist/ Team Leader	46.0	
2. Municipal Infrastructure Engineer/ Deputy Team Leader		64.0
3. Finance Management Specialist	5.0	14.0
4. Information Technology/ Management Information System Specialist		10.0
5. Monitoring and Evaluation Expert		54.0
6. Environmental Safeguards Expert		24.0
7. Social Safeguards and Gender Expert		36.0
Subtotal Output 4	51.0	202.0
<i>Output 1: Improved Municipal Infrastructure with Climate-Resilient Design in Project Pourashavas</i>		
1. Quality Control Specialist	4.0	
2. Procurement and Quality Control Expert		8.0
3. Construction Supervision Engineers	12.0	142.0
4. Water Supply O&M Engineer		15.0
5. Electro-mechanical Engineer		14.0
6. CAD operator		46.0
Subtotal Output 1	16.0	225.0
Total	67.0	427.0
Grand Total	494.0	

E. QUALIFICATIONS, EXPERIENCE AND TERMS OF REFERENCE OF TEAM MEMBERS

No.	Position	Required Qualifications and Experience	Required Experience	Key Tasks
International Specialists				
I.1	Project Management Specialist/ Team Leader	Masters or equivalent degree in engineering	At least 20 years of experience, of which preferably 15 years involved in planning and design of urban development projects and will have a preferably 10 years proven work experience and skill in similar position in similar developing countries especially in South Asia	<p>Assist/support the Project Director and PMu staff with the following tasks:</p> <ul style="list-style-type: none"> • Liaison and with ADB on all issues related to the investment plan. • Establishment of PIUs in the participating pourashavas. • Coordination on overall project implementation among PIUs. • Preparation and submission of periodic progress reports to ADB. • Establishment, maintaining and updating the investment plan performance monitoring system. • Planning and monitoring: <ul style="list-style-type: none"> - public relations activities; - gender mainstreaming initiatives; - community participation activities; • Dissemination of information related to the investment project to the public and media, including climate change resilience and disaster risk management. • Reporting the progress of the project to ADB by consolidating PIUs' monthly progress reports. • Preparation and submission to ADB quarterly progress reports which will include: (i) a narrative description of progress made during the reporting period; (ii) changes in the implementation schedule; (iii) problems or difficulties encountered; and (iv) activities to be undertaken in the next reporting period. • Preparation and submission of: <ul style="list-style-type: none"> - internal audit report; - reports mandated under the loan agreements and the framework financing agreement to ADB; - disbursement application to ADB. • Certify payments for ADB reimbursements. • Preparation of project completion report.
I.2	Financial Management Specialist	Post-graduate degree in economics and finance field	At least 15 years of experience in project economic and financial analyses, and with experience in working on donor-funded projects	<p>Assist PD/ PMU and Team Leader/ Deputy Team leader with:</p> <ul style="list-style-type: none"> • Preparation of periodic financing requests to ADB after compilation of constituent subproject components. • Maintaining project accounts and prepare consolidated monthly reports. • Establishment of an imprest account with a commercial bank. • Adherence to sound financial management requirements during the implementation of the project.

No.	Position	Required Qualifications and Experience	Required Experience	Key Tasks
				<ul style="list-style-type: none"> • Maintaining separate project records and accounts adequate to identify the: <ul style="list-style-type: none"> ○ goods and services financed from loan proceeds; ○ financing resources received; ○ expenditures incurred on the components of each project; and ○ counterpart funds received and expended. • Facilitate auditing, and taking steps to resolve any issues.
I.3	Quality Control Specialist	Degree in engineering (civil) plus preferably a Masters or equivalent in quality control management or civil engineering .	At least 15 years of experience in quality control of civil works, with experiences in working on donor-funded projects.	Assist PD, Deputy Project Directors for infrastructure development with: <ul style="list-style-type: none"> • Advice on best practices on quality control for civil works, and how to apply for the project. • Preparation of necessary guidance documents/ manuals. • Assess quality of completed civil works for municipal infrastructure, for progress payments to contractors.
I.4	Construction Supervision Engineer	Degree in engineering (civil) plus preferably a Masters or equivalent in civil engineering.	Minimum of 20 years of professional experience of working with/supervising contractors. He/she should have good communication skills.	Assist PD, Deputy Project Directors for infrastructure development with: <ul style="list-style-type: none"> • Advise on construction best practices, to ensure good quality of completed works. • Examine and approve the contractor's facilities, to ensure that these facilities conform to the agreed contract documents; • Examine and approve the contractor's proposed work methods including but not limited to examining and approving occupational health and safety procedures; • Assess the adequacy of materials, equipment and labor provided by the contractors, the contractor's methods of work, and rate of progress and (where required) recommend appropriate action to the pourashava authorities to expedite progress; • Examine and approve the contractor's plans defining the location of the crushing and aggregate processing plants and the like; • Examine and approve all implementation plans and working drawings prepared by the contractor; • Provide general guidance to the contractor as may be necessary to ensure that the works are carried out according to schedule and within the terms of contract; • Ensure that the contractors have prepared the Contractor's EMPs (CEMPs) prior to actual construction; supervise the implementation of environmental mitigating measures required for the construction activities; • Advise the client on any environmental recommendations to overcome possible problems encountered; • Review, monitor and evaluate the effectiveness of the implemented CEMPs, and recommend necessary corrective actions; assist the pourashava authorities in the implementation of the Grievance Redress Mechanism during construction; • Review the following contractor's documents and recommend appropriate action to the pourashava authorities, as necessary: periodic progress reports, quality-testing results, requests for variation, contractor's claims, and contractor's invoices;

No.	Position	Required Qualifications and Experience	Required Experience	Key Tasks
				<ul style="list-style-type: none"> Carry out an inspection upon completion of works and recommend on maintenance during defect liability period; and Ensure that 'as-built' drawings are prepared for all works as construction progresses.
National Experts				
N.1	Municipal Infrastructure Engineer/ Deputy Team Leader	Master's degree in civil engineering or related field	At least 15 years of experience in designing and managing urban development projects, a post-graduate degree in civil engineering with experience in donor funded projects. Preference will be given to those with climate change experience.	<ul style="list-style-type: none"> Assist team leader in delivering high quality and timely delivery of TOR, and ensuring readiness of subprojects including safeguards; Assist the PMU and Paurashavas in the selection of eligible subprojects using subproject selection criteria; Help contract administration and supervision to ensure quality control of subprojects; Support Team Leader and other consultants in implementation of their assigned activities at town level; Any other responsibilities assigned by the Project Director.
N.2	Finance Management Specialist	Degree in economics and finance field	At least 15 years of experience in project economic and financial analyses, and with experience in working on donor-funded projects	<p>Assist PD/ PMU and Team Leader/ Deputy Team leader with:</p> <ul style="list-style-type: none"> Preparation of periodic financing requests to ADB after compilation of constituent subproject components. Maintaining project accounts and prepare consolidated monthly reports. Establishment of an imprest account with a commercial bank. Adherence to sound financial management requirements during the implementation of the project. Maintaining separate project records and accounts adequate to identify the: <ul style="list-style-type: none"> goods and services financed from loan proceeds; financing resources received; expenditures incurred on the components of each project; and counterpart funds received and expended. Facilitate auditing, and taking steps to resolve any issues.
N.3	Information Technology/ Management Information System Specialist	Degree in computer science or computer applications to business administration, project management or other relevant fields	At least 15 years of relevant experience in management information systems, project management, monitoring, and/or evaluation	<ul style="list-style-type: none"> Assist with specification and procurement of computer hardware and software. Develop and implement the PMIS monitoring project performance in the implementing agencies and other participating entities.
N.4	Monitoring and Evaluation Expert	Master's degree in economics/ business administration, social science or other relevant fields	At least 15 years of relevant experience in project management, monitoring, and/or evaluation	<p>The expert will assist the PMU to:</p> <p>(i) establish and implement an effective monitoring and evaluation mechanism for performance based mechanism (PBM)/performance criteria (PC) for the project participating Paurashavas</p> <p>(i) identify monitoring indicators in accordance with PBM/PC,</p>

No.	Position	Required Qualifications and Experience	Required Experience	Key Tasks
				(ii) establish benchmarks for the identified indicators, (iii) design and implement surveys to collect indicators including initial benchmark and regular follow up, (iv) assist Pourashavas i.e., PIUs to regularly report the PMO to monitor the progress of PC, (v) assist PMU in monitoring and assessing the compliance status of the performance criteria, and (iv) assist PMU in consolidating reports from PIUs and prepare quarterly progress reports to be submitted by PMO to ADB.
N.5	Environmental Safeguards Expert	The environmental safeguards specialist must have a degree, preferably with Master's in civil / environmental engineering/ management/ science	At least 10 years' solid experience in environmental engineering and monitoring related areas. S/he will also have at least 3 solid years of experience in administering ADB environmental safeguards and guidelines. Experiences with international organizations shall be an added advantage.	The environmental safeguards specialist will inspect and investigate source of pollution to protect the public and environment and ensure conformance with local environmental regulatory laws and policies. He will also responsible for the following: <ol style="list-style-type: none"> Prepare initial environmental evaluation (IEE) or environmental impact assessment (EIA) following the standard format and providing required details. Ensure environmental management plans (EMPs) are included in the bid documents; Organize an orientation workshop for the Project Management Unit (PMU), Project Implementation Units (PIUs), and staff involved in the project implementation on ADB Safeguards Policy Statement, Government of Bangladesh environmental laws and regulations, and environmental assessment process; Organize an induction course for the training of contractors preparing them on EMP implementation, environmental monitoring requirements related to mitigation measures; and taking immediate actions to remedy unexpected adverse impacts or ineffective mitigation measures found during the course of implementation. Ensure compliance with all government rules and regulations regarding site and environmental clearances as well as any other environmental requirements (e.g., Locational Clearance Certificate, Environmental Compliance Certificate and as relevant, tree-cutting permits, use of non-explosive/chemical blasting agents for rock breaking, etc.); Assist PMU and PIUs to document and develop good practice construction guidelines to assist the contractors in implementing the provisions of IEE. Provide occupational health and safety training for contractors' personnel before commencement of civil works; Review the contractors' Environmental Implementation Plans to ensure compliance with the IEE/EMP. Oversee implementation of the EMP during construction including environmental, health and safety monitoring of contractors; Coordinate with the PMU, PIU, (consultants') Resettlement Specialist, NGO, and contractors on mitigation measures involving the community and affected persons and ensure that environmental concerns and suggestions are incorporated and implemented in the project;

No.	Position	Required Qualifications and Experience	Required Experience	Key Tasks
				k. During the construction phase, monitor and ensure compliance of EMPs by contractors as well as any other environmental issues. Take corrective actions when necessary to ensure no environmental impacts; l. Review site specific environmental enhancement/mitigation designs, compliance reports by contractors, submit monthly environmental monitoring reports to the PMU with copy to the PIU, and advice the same on corrective actions; m. Assist PMU in finalizing monitoring reports for submission to ADB on quarterly basis; n. Assist in addressing any grievances brought about through the Grievance Redress Mechanism in a timely manner as per the IEEs.
N.6	Social Safeguards and Gender Expert	Master's degree in Sociology/ Economics / related field	Minimum 7 years	i) Assist PMU Safeguards Officer (SO) in ensuring compliance to social safeguards and gender and development policies of Government and ADB ii) Update draft RP based on detailed design iii) Determine number of affected persons (APs)/vulnerable APs and coordinate valuation and finalization of compensation with PMU SO and NGO iv) Oversee implementation of RP by contractors v) Submit monthly reports on RP, GAP, awareness, social protection activities vi) Support PMU in addressing grievances of APs in a timely manner
N.7	Procurement and Quality Control Expert	Bachelor degree or Masters in quality control management or engineering management or equivalent from any recognized university	At least 15 years of work experience of which 10 years should be directly related to the relevant tasks procurement and quality control, particularly of civil works	Assist PD, Deputy Project Directors for infrastructure development with: <ul style="list-style-type: none"> • Advice on best practices on quality control for civil works, and how to apply for the project. • Preparation of necessary guidance documents/ manuals. • Assess quality of completed civil works for municipal infrastructure, for progress payments to contractors. • Assist with procurement matters as required. • Any other responsibilities assigned by Team Leader and Project Director.
N.8	Construction Supervision Engineers	Bachelor degree in civil engineering	At least 10 years of practical working experience of supervising construction of civil works	Assist PD, Deputy Project Directors for infrastructure development , and International Construction Supervision Engineer with: <ul style="list-style-type: none"> • Assist PIUs to ensure good quality of completed works. • Examine and approve the contractor's facilities, to ensure that these facilities conform to the agreed contract documents; • Examine and approve the contractor's proposed work methods including but not limited to examining and approving occupational health and safety procedures; • Assess the adequacy of materials, equipment and labor provided by the contractors, the contractor's methods of work, and rate of progress and (where required) recommend appropriate action to the pourashava authorities to expedite progress; • Examine and approve the contractor's plans defining the location of the crushing and aggregate processing plants and the like; • Examine and approve all implementation plans and working drawings prepared by

No.	Position	Required Qualifications and Experience	Required Experience	Key Tasks
				<p>the contractor;</p> <ul style="list-style-type: none"> • Issue all necessary instructions to the contractor, and examine and control the work to ensure that these are carried out according to the contract documents; • Provide general guidance to the contractor as may be necessary to ensure that the works are carried out according to schedule and within the terms of contract; • Ensure that the contractors have prepared the Contractor's EMPs (CEMPs) prior to actual construction; supervise the implementation of environmental mitigating measures required for the construction activities; • Inspect all working areas and installations during the execution of the works; • Compute quantities of works and materials, which have been accepted and approved, and examine and certify contractor's payment requests; • Report monthly on the progress of the works, the contractors' performance, quality of works, and the subproject's financial status and projections; • Prepare monthly, quarterly, and semi-annual environmental monitoring reports; semi-annual environmental monitoring report to be submitted to ADB and the EA. • Ascertain and agree with the contractor all work measurements and review, and recommend payment claims and certify these to the pourashava authorities as being correct and within the terms of the contract; • Record the results of measurements carried out for quantities to be paid for the provisional and final accounting, on forms normally used in Bangladesh; • Advise the client on any environmental recommendations to overcome possible problems encountered; • Review, monitor and evaluate the effectiveness of the implemented CEMPs, and recommend necessary corrective actions; assist the pourashava authorities in the implementation of the Grievance Redress Mechanism during construction; • Review the following contractor's documents and recommend appropriate action to the pourashava authorities, as necessary: periodic progress reports, quality-testing results, requests for variation, contractor's claims, and contractor's invoices; • Alert the pourashava authorities to any problems that arise in connection with the contractor and make recommendations for solving them; • Assist the pourashava authorities in any dispute that may arise with the contractor and give a firm opinion on any claim the contractor may put forward, by drawing up a report which includes all the elements on which the judgment is based; • Carry out an inspection upon completion of works and recommend on maintenance during defect liability period; and • Ensure that 'as-built' drawings are prepared for all works as construction progresses.
N.9	Water Supply O&M Engineer	Degree in Engg. (civil/ water resource engg.)	Experience in water utility management, training.	<p>He/she will be responsible for carrying out the following principle tasks:</p> <p>(i) Support Pourashavas in the implementation of the ADB funded project.</p>

No.	Position	Required Qualifications and Experience	Required Experience	Key Tasks
		plus preferably a Masters or equivalent in civil/water resource/water supply engg.	He/she shall have minimum of 20 years of professional experience of which at least 15 years' experience in water supply engineering, which includes rehabilitation and newly implementation of water utilities. He/she should have good communication skills, be familiar with participatory approaches of capacity building and training programs.	<ul style="list-style-type: none"> (ii) Support Pourashavas in efficient operation of water production, treatment and distribution with customer's satisfaction. (iii) Assess O&M capability of water supply section in Pourashavas; preparation of comprehensive capacity building action plan; conduct classroom and on the job training to the Pourashava relevant staffs. (iv) Assist in ensuring the required standards of construction of water supply infrastructure, are met by contractors and sub-contractors; (v) Institutional development: objective, organizational, non-revenue water management; (vi) Implement water quality monitoring, disinfection and water safety plan ; (vii) Preparation of water meter specification, connection policy, standard service connection details, specification of chemicals needs for water treatment and disinfection; undertake NRW & loss reduction activity, (viii) Preparation of the operation and maintenance manuals for the improved infrastructure (water supply systems).
N.10	Electro-Mechanical Engineer	Degree in Electrical/Mechanical Engg	Minimum of 20 years of professional experience of which at least 15 years' experience in water supply engineering, which includes rehabilitation and newly implementation of water utilities. The expert will provide hands-on and operational support.	<p>He/she will be responsible for carrying out the following principle tasks:</p> <ul style="list-style-type: none"> (i) Supervise the installation of mechanical and electrical equipment for production tubewells and surface water treatment plant (ii) Support pourashavas in efficient operation of water production, treatment and distribution with customer's satisfaction. (iii) Support pump operation & maintenance - withdrawal & lowering of pumps in production wells, dismantling & assembly of submersible pump sets, pump & well monitoring, well regeneration etc. (iv) Assess O&M capability of water supply section in Pourashavas; preparation of comprehensive capacity building action plan; conduct classroom and on the job training to the Pourashava relevant staffs. (v) Preparation of water meter specification, connection policy, standard service connection details, (vi) Preparation of the operation and maintenance manuals for the pumps & motors.
N.11	CAD operator	Bachelor degree in computer science/engineering	At least 6 years of practical experience including at least 3 years in Auto-CAD operation	<ul style="list-style-type: none"> • Assist the consultant team and the PMU in designing municipal facilities and infrastructures using Auto-CAD. • Preparation of drawings and maps. • Any other responsibilities assigned to him/her by Team Leader and the Project Director.

F. REPORTS, DELIVERABLES AND TIME SCHEDULE

Consultant support will be provided over the 6-year project implementation period.

The consultants will submit the following reports:

Deliverable	Month of Delivery ^a	Summary of Contents
Project Management Advisory		
Inception Report	#2	Initial findings, detailed approach and methodology, detailed work plan.
Monthly Report	#2, #3,..., #71	Monthly progress, detailed by sub-project location.
Quarterly Report ^b	#3 ,#6, ..., #66	Quarterly progress.
Annual Report ^b	#12 ,#24, #36, #48, #60	Annual progress.
Special reports (as requested by PMU)	Tbd	Contract management, handover of facilities, confirmation of operations. Shall include report that all safeguards requirements have been complied.
Final Report ^c	#72	Inputs provided, outputs produced, evaluation of achievements, strengths and weaknesses of the approach, used suggested follow-up actions, assessment of impacts of the services from the Consultant's perspective.

^a Month of delivery (#1 is the first month of the assignment).

^b In accordance with ADB guidelines on progress reports.

^c Will contain last monthly, quarterly and annual report.

G. DATA, LOCAL SERVICES, PERSONNEL, AND FACILITIES TO BE PROVIDED BY THE EA

The EA will establish a Project Management Unit that will be responsible for day-to-day management and organizing the technical and administrative aspects of the project implementation.

The EA will provide the Consultants with suitable office space, office furniture (including a sufficient number of standard desks, chairs, shelves, and closets), lighting, electricity, air conditioning, and access to phone lines. Electricity, communication and other consumables will be at the cost of the Consultants.

The EA will assist the consultant in obtaining all relevant data.

The EA will finance allowances and travel cost of their own staff only.

DRAFT OUTLINE TERMS OF REFERENCE FOR INSTITUTIONAL STRENGTHENING AND AWARENESS BUILDING CONSULTANT TEAM

C. OVERVIEW

The ADB assisted Coastal Towns Infrastructure Improvement Project (CTIIP) is designed to improve and expand municipal infrastructure and related services in selected *pourashavas* (municipalities) in coastal areas of Bangladesh, incorporating climate change resilience measures. The low-lying deltaic coastal area of Bangladesh is highly vulnerable to severe weather events such as tropical cyclones in the Bay of Bengal and storm/tidal surges, resulting in extensive flooding, backup of sewage, wind damage and loss of human lives. Existing urban infrastructure in *pourashavas* such as water supply systems, sanitation facilities, roads, bridges and boat docking stations is generally inadequate, and suffers a great deal of damage during such events. Modeling studies (conducted during the PPTA) indicate that cyclones will intensify in the future owing to increased sea surface temperatures in the Bay of Bengal and sea level rise is expected to exacerbate the vulnerabilities of coastal towns. The impacts of climate change on coastal towns are anticipated to be significant.

The aim of CTIIP is to build climate proof infrastructure and resilient communities. The Project is proposed to be financed through a sector loan from ADB; the first batch of 4 towns includes Amtali, Galachhipa, Pirojpur and Mathbaria; and it is estimated there will be 4 towns for Batch 2 (to be selected). Complementing the physical infrastructure components will be project management consultancy support, institutional development and capacity building consultancy support and NGO support for community mobilization, communication and awareness raising on climate change adaptation and resilience building, hygiene and behavior change.

Climate change adaptation features have been built into the project infrastructure designs, and there is a need to build capacity in the participating *pourashavas* concerning climate change adaptation and disaster preparedness, to improve governance for sustainable service delivery, urban planning and improvement of master plans to take into account climate change vulnerability, to conduct studies, surveys and research on flood inundation and climate change impacts, and for the improved management of groundwater resources.

B. OBJECTIVES OF THE CONSULTING SERVICES

The Government of Bangladesh (GOB) intends to procure the services of a reputable consultant ("the Consultant") to provide institutional strengthening and awareness building services to support the Project Management Unit (PMU) in the Local Government Engineering Department (LGED) for the implementation of the ADB-funded Coastal Towns Infrastructure Improvement Project (CTIIP). The purpose of the PMU is to manage, coordinate and monitor project activities.

The Consultant should liaise closely with the Detailed Design Service (DDS) consultants engaged under the Project Design Advance (PDA) for CTIIP, the Project Management and Supervision Consultant team, and the NGO team for community-based awareness and outreach activities.

The consultants will also work closely with the Urban Management Support Unit (UMSU) or urban wing of LGED to support the capacity development of *pourashavas* with regards to public service delivery improvements in infrastructure project implementation and good governance.

C. SCOPE OF WORK

The scope of work covers the following main subjects:

- Urban planning.
- Climate change adaptation and disaster risk management.
- Institutional development and governance.

Activities of the TA will include:

- Strengthening the organizational structure of the LGED urban wing.
- Enhance the capacity of the LGED urban wing.
- Establish training modules in key areas of capacity development in pourashavas.
- Carry out pilot activities to improve pourashavas' capacity.
- Enhance horizontal learning programs on the public service delivery of pourashavas.
- Assist pourashavas for master plan preparation and implementation.
- Assist pourashavas for the enforcement of the Building Construction Act and rules.

1. URBAN PLANNING

The urban planning component will consist of four interrelated components designed, in combination, to enhance the climate resilience of urban planning, and the operational effectiveness of urban planning more generally (Table 1).

Table 1: Overview of the Urban Planning Technical Assistance Components

Objective: Strengthen local urban planning practice in general, and climate resilient urban planning in particular, in four coastal towns			
Component A	Component B	Component C	Component D
Climate Sensitive Land Use / Master Plans built or revised on the basis of climate change vulnerability and adaptation assessments	Planning and building control adapted to climate change that can be implemented and is enforceable	Straight-forward and continual infrastructure investment programming methods that prioritize climate adapted investments that are affordable and sustainable	Sufficient capacity and skills (of the pourashava and individuals) in urban planning to effectively run the planning system, and to make it a joint, multi-stakeholder, enterprise
Outputs 1. Vulnerability and Adaptation Assessment 2. Revised urban master plan	Outputs 1. Climate Change Adaptation Building Standards Guide 2. Planning and Building Control Guideline	Outputs 1. Municipal Adaptation Investment Plans	Outputs 1. Climate Change in Coastal Cities Training Package 2. Geographical Information Systems

Source: PPTA Consultant.

Component A: Mainstreaming Climate Change Adaptation in Urban Plans

A.1: Vulnerability and adaptation assessments. The Vulnerability and Adaptation Assessment (VAA) forms the backbone of subsequent climate resilient urban planning support. The VAA method will be based on existing practice internationally, and within Bangladesh (the latter includes ICLEI's application of a Urban Vulnerability Assessment in Barisal and approaches emerging from the Urban Development Directorate's work on land

use planning and DRR).¹⁴ This will build on, and intensify, work already started under the PPTA CTIIP with a view to improving the understanding of pourashava and ward-level vulnerabilities, and providing the basis for improved urban planning (and other DRM) responses. The VAA should be based on available data, involve intensive participation and carried out with close cooperation and involvement of the pourashava.

- (i) Review existing VAA methods in Bangladesh and internationally and propose a method that is compatible with the Bangladesh context.
- (ii) Consolidate data (utilising outputs from the PPTA CTIIP) on projected climate change, and impacts at the town-level.¹⁵
- (iii) Develop a town-level hazard map for the pourashava (utilising outputs from the PPTA CTIIP).
- (iv) Identify 'hot spots' (those areas in the pourashava that are high vulnerable to damage and loss as a result of flooding, tidal surge, and cyclones).
- (v) Identify critical facilities infrastructure and assess the vulnerabilities of these assets.
- (vi) Through facilitated community participation, develop community hazard mapping in hotspot wards, link this to existing socio-economic data, and supplement existing data with socio-economic surveys.¹⁶
- (vii) Outline adaptation measures required in urban master (land use plans) and building standards.
- (viii) Feed in, and share findings, with CTIIP PIUs to develop an improved disaster preparedness program—targeting the most vulnerable areas, populations and infrastructure—and preparing the basis for developing a disaster management plan.
- (ix) Revise the VAA method based on lessons learned from practical application as a concise, practical, and user-friendly guide.

A.2: Urban master plan revision. The VAA provides the foundation for reviewing and, where, necessary revising the existing urban master plans. The scope of change will vary between pourashava but may include:

- Concise and user-friendly additions on climate change projections and scenarios and the impact on the spatial development of the pourashava.
- Reviewing current land use zones in the context of projected climate change, and revising and simplifying land use zoning where hazard mapping indicates development in highly vulnerable areas.

¹⁴ This should include 'Developing Local Climate Change Plans: A Guide for Cities in Developing Countries', UN-HABITAT and IIED (2012), 'Sorsogon City Climate Change Vulnerability and Adaptation Assessment', UN-HABITAT (2010), 'Planning for Climate Change: A Strategic, Values-based Approach for Urban Planners' (UN-HABITAT, this is currently being substantially revised). The outputs of ICLEI's Barisal UVA are currently unavailable (July 2013). 'Integrating DRR into Land Use Planning in Bangladesh' is available from UDD, and guidelines arising from this will be developed over 12 months commencing mid-2013 and supported by the Asian Disaster Preparedness Center (ADPC).

¹⁵ For the development of improved vulnerability assessments and local level adaptation plans and projects, further investigation is required on the downscaling of future predictions using high resolution dynamic models, such as PRECIS, to local level scenarios at the required time horizon. This task is being carried out under a separate Technical Assistance on Disaster Risk Management can will consist of three components: (a) Applied climate/disaster vulnerability research and data collection comprising: (i) preparation of downscaled GCMs, (ii) flood inundation baseline setting, measuring, monitoring and mapping, (iii) cyclone and flood damage assessments and monitoring. (b) Slum and Vulnerable People and Community Disaster Risk Management Capacity Building comprising development of: (i) a community level awareness raising program, (b) fisher's enhanced disaster warning system, and (c) community level DRM planning. (c) Pourashava Disaster Risk Management Committee Capacity Building comprising: (a) orientation system for new civil servants/officials, (b) technical support for DRM Committee, (c) DRM/Climate Resilience Fund design, and (d) pourashava seed funding

¹⁶ The community survey instigated by PPTA CTIIP has clearly indicated that vulnerable communities had lower quality of housing located in hazard prone areas (such as outside of embankments) and with individual and household coping mechanisms (such as savings) scarcer and more fragile for poorer communities.

- Verifying and re-enforcing 'no development' zones, and zones for urban development and expansion in safe areas.
- Allocating land for the development or relocation of critical facilities and buildings, transmission-distribution systems (electricity) and storage (i.e. fuels and food) where these are currently located in vulnerable areas, and/or anticipating the need for land assembly to provide adequate space for such facilities.
- Verifying that natural assets critical to climate proofing (such as ponds, *khas*, natural barriers and green/open spaces) are adequately protected from encroachment and destruction (through zoning and policy).
- Reserving rights-of-way for the future planned provision of infrastructure (such as roads, drains and embankments) critical for climate resilience.
- Encouraging, within reason, higher densities and 'compaction' in areas that are least vulnerable and best protected (by embankments, polders, location), through zoning, planning standards and policy.
- Ensuring that escape routes (roads and bridges) and adequate access for emergency services equipment (fire fighting, ambulance, search and rescue operations) is safeguarded.

The sub-component will:

- (i) Develop a straight-forward protocol and framework for reviewing the plans on the basis of the VAA.
- (ii) Review each coastal town urban master plan and propose whether revisions are necessary.
- (iii) Provide recommendations of areas for revision for presentation to the Pourashava Council and Town Level Consultative Committee.
- (iv) Prepare revised urban master plans (as necessary).
- (v) Endorse final revisions through the Pourashava Council.
- (vi) Prepare and disseminate user-friendly public information outlining master plan revisions.

Component B: Planning and Building Control

B.1: Climate change adaptation building standards. To support decision-making that reflects an emphasis on climate change resilience and is practitioner-oriented and user-friendly, the TA will develop concise supplementary building design guide. The aim will be to support pourashava officials, construction professionals and vulnerable communities to reinforce and/or readjust building design in response to climate change and in order to minimize the loss or damage to property. The guide will reference the revised Bangladesh National Building Code and based on: (a) existing practice in the coastal towns, (b) recommended standards based on climate change trends, and (c) where appropriate relevant international practice. In the first instance this is intended as supplementary (discretionary) guidance to support pourashava decision-making and the development of climate resilient coastal town structures.

The scope of work includes:

- (i) Rapid review of the Bangladesh National Building Code and its practicality for pourashava practitioners.
- (ii) Review of current building standards in the participating coastal towns (and their adjustment to climate change) covering both formal and informal (slum housing in highly vulnerable areas), and with a predominant focus on housing.
- (iii) Assessment of climate change impacts on building design, building materials and site design.
- (iv) Development of a concise generic guide appropriate for the coastal zone towns.

- (v) Stakeholder working sessions to identify current practice and anticipated changes in response to climate trends, and to review the draft guide.
- (vi) Finalized illustrated 'Climate Change Adaptation Building Standards Guide'.

B.2: Development and building control systems. This sub-component aims to review, strengthen and develop the planning and building control systems and administration, and ensure that these systems are enforced. It will build on the initial assessment and recommendations of PPTA CTIIP.

The scope of work includes:

- (i) Review the administration of the building permit system as currently practised in the Batch 1 participating coastal towns.
- (ii) Develop standard procedures in recording and reporting formats (the building permit).
- (iii) Develop a concise, user-friendly planning reporting and/or screening format for use in checking the compatibility of proposed developments with the master plan, and the most significant planning and environmental related aspects (including climate change issues).
- (iv) Review and develop (through a concise 'Practice Note') the protocol for optimal accountability in the administration of planning and building permits through: (a) the Standing Committee on Urban Planning, Urban Services and Development, (b) Town Level Consultative Committee, and (c) Ward Level Consultative Committees.
- (v) Review and confirm (through a concise 'Practice Note') the protocol for ensuring optimal transparency in the administration of planning and building permits including: (a) accessibility of the register, (b) the status of building permit applications at the town and ward level, (c) at/on site notification of applications and permits, and (d) public information and awareness campaigns on the significance of compliant (enforced) development.
- (vi) Develop simple record keeping/database formats for computerization to strengthen information management in urban planning.
- (vii) Propose, discuss and revise incentives to encourage compliance with planning and building permissions. Agree test worthy incentives and develop simple evaluation and monitoring criteria.
- (viii) In undertaking (i) to (vi) employ targeted stakeholder consultation methods with the main decision-makers.
- (ix) Consolidate learning and Practice Notes into a user-friendly 'Planning and Building Control Guideline'.

Component C: Infrastructure Investment Programming

C.1: Municipal adaptation investment plans. The aim of this component is to sharpen the implementation orientation of urban planning through the prioritization of municipal infrastructure investments with a particular emphasis on climate change resilience. These 'capital investment plans' are considered complementary to the urban master plans, will be based on the Vulnerability and Adaptation Assessments, are designed to trigger the prioritization and pre-feasibility screening of projects already identified in master plans and supplemented where necessary by additional climate resilient investments (arising from VAAs). The approach is designed to build-on, adapt and help mainstream municipal investment programming already developed and tested by ADB (through the UGIIP-1 and 2) and The World Bank (through MGSP preparatory TA).

The parameters for the development of 'Municipal Adaptation Investment Plans' are that such approaches are: (a) within the capacity of the pourashavas to use on an on-going basis (for example reviewed annually, with substantial reviews every 3 years), (b) are expeditious and streamlined in development, (c) build on the most successful aspects of the UGIIP-2

piloted Pourashava Development Plan (such as visioning and the central involvement of the TLCC), and thus the practicability of planning in Bangladesh urban centers, (d) link investment prioritization to financial capacity, (e) Integrates an asset management approach that can be readily tied to investments for DRM (including condition assessments and O&M plans).

For CTIIP Batch 1 towns much of the assessment and prioritization work has been already been undertaken and can be refreshed.

The scope of work includes:

- (i) Review methods for capital investment planning in Bangladesh, revise and adapt to climate change adaptation.¹⁷
- (ii) Confirming infrastructure and service level and coverage gaps.
- (iii) Identifying and assessing the quality of infrastructure assets and formulation of an Asset Management Plan (comprising an asset inventory, asset condition assessment and maintenance budget (Annual/3-Year).
- (iv) Formulating a municipal vision, goals and priorities.
- (v) Confirming the main capital investment needs (based on master plans)
- (vi) Prioritizing short-listed investments based on criteria weighted to climate change adaptation.
- (vii) Undertaking preliminary economic, environmental, social and financial assessments on priority investment projects.
- (viii) Finalizing and adopting the Municipal Adaptation Investment Plan through the Pourashava Council.

Component D: Urban Planning Capacity

D.1: Urban planning, training and briefing. Training and briefing activities will: (a) support the implementation of components A, B and C through on-the-job training and counterpart working (these will be intrinsic to carrying out these activities), and (b) short, practitioner-focused (modular) sessions to support the understanding and implementation of urban planning. The development and delivery of the program will balance a rapid self-assessment of needs, and professional judgment on capacity requirements to operate a fledgling urban planning system in the coastal towns. It is anticipated that the training will be: (a) delivered in Barisal Division (in either a participating coastal town or an alternative strategic location accessible to all participant towns), (b) provide joint training to all participating towns to ensure sharing throughout CTIIP implementation and economies of scale in training delivery, and (c) work with existing training providers including the LGED based Urban Management Support Unit/Municipal Support Unit (UMSU/MSU), Municipal Association of Bangladesh (MAB), the Bangladesh Institute of Planners (BIP) and National Institute of Local Government, in the design and delivery of training.

The sub-component will comprise:

- (i) Oversee a rapid assessment of capacity building needs (of both technical pourashava staff and elected representatives) and training suppliers. It is anticipated that training will cover the basics of urban planning and the relationship between planning, climate change and disaster risk management, and will include:
 - The role of urban planning
 - The role of the urban master plan

¹⁷ Most especially the LGED (2012) 'Combined Urban Infrastructure Development Guidelines', prepared for the Local Government Engineering Department (Bangladesh) and World Bank review of the Municipal Services Project.

- The role of the urban planner
 - Pourashava planning mandates (laws, regulations, rules and policies)
 - The role and responsibilities of elected representatives in urban planning
 - The role of TLCC and WLCC in urban planning
 - Development and building control systems and how to operate them
 - The relationship between urban planning and climate change
 - Introduction to infrastructure investment planning for climate resilience
 - Vulnerability and Adaptation Assessments as an urban planning tool
 - Disaster Risk Reduction (DRR) through land use planning and development control.
- (ii) Review existing practitioner urban planning courses and materials currently available in Bangladesh.
 - (iii) Identify existing training and training suppliers that are relevant to urban planning in coastal zone towns, and areas for training material development where none is available.
 - (iv) Develop an urban planning training program.
 - (v) Coordinate the delivery of training.
 - (vi) Revise and compile training modules and materials on the basis of application and feedback ('Climate Change in Coastal Cities Training Package').

D.2: Geographical information systems. Geographical Information Systems (GIS) will be introduced in participating coastal towns. This is critical in providing: (a) accessibility to the GIS databases generated in the development of the master plans, (b) accessibility to inundation data and mapping developed in the PPTA CTIP, (c) timely updating of GIS databases and mapping, (c) extending the application of GIS to new areas in support of improved urban management.

- (i) Introduce computer hardware and GIS software packages.
- (ii) Load existing GIS data (master plan and inundation data).
- (iii) Prepare and deliver GIS demonstrations and briefings for elected officials and pourashava officers on the opportunities and limits of GIS.
- (iv) Prepare and deliver on the job training on GIS.
- (v) Extend the GIS application to core areas in pourashava urban management including tax holdings ('holding tax'), billing systems and building permits.¹⁸

Implementation Phasing and Outputs

The outline phasing of component implementation is indicated in **Figure 1**.

¹⁸ In some pourashavas, such as Bhairab, Chandpur, Chapai and Nawabganj where urban planners are currently working, the GIS database is helping support an increase in the revenue base.

Figure 1: Indicative Phasing of Urban Planning Technical Assistance

Components																				
	Year 1				Year2				Year 3				Year 4				Year 5			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
A Urban Plans																				
A.1 Vulnerability and Adaptation Assessments																				
A.2 Mater Plan Revision																				
B.1 Climate Change Adaptation Building Standards																				
B.2 Development Control Systems																				
C.1 Municipal Adaptation Investment Plans																				
D Urban Planning Capacity																				
D.1 Urban Planning Training and Briefing																				
D.2 Geographical Information Systems																				
Source: PPTA Consultants																				

2. CLIMATE CHANGE ADAPTATION AND DISASTER RISK MANAGEMENT

1. Objectives

The overall objective of the climate adaptation and disaster risk management component of the TA is to strengthen pourashava and community level preparedness for climate change, in all selected CTIIP towns. The goal is to achieve climate resilient urban development over the medium to long term. The TA will achieve this through four interrelated sub-components:

- (i) Develop technical tools to better project, plan, and assess the impacts of future climate change,
- (ii) Engrain community level awareness of climate change hazards and climate resilience options, especially in the slum areas and for marginalized communities and individuals,
- (iii) Strengthen community level disaster preparedness through support for the Pourashava Disaster Risk Management Committees, and
- (iv) Resource pro-poor community-level adaptation through locally managed climate resilience funds in each project town.

2. Scope of Work

The TA will consist of four interrelated components designed, in combination, to enhance the climate resilience of each of the project towns, and the operational effectiveness of climate change preparedness and disaster risk more generally.

Table 2: Overview of the Climate Change and Disaster Preparedness Technical Assistance Component

Objective: Strengthen Pourashava and community level preparedness for climate change, in all CTIIP towns			
Component A	Component B	Component C	Component D
Climate impact and disaster management technical tools to inform adaptation and DRM decision making	Community-level awareness raising and warning systems for climate hazards and resilience options , especially for the poor and marginalized	Disaster preparedness through support for Pourashava level Disaster Risk Management Committees	Resource pro-poor, community level adaptation through locally managed climate resilience funds
Outputs 1. Downscaled climate model outputs Improved tropical cyclone projections 2. Flood inundation monitoring and mapping 3. Cyclone and flood loss and damage assessments/tools	Outputs 1. Community awareness raising events 2. Fishing community early warning system 3. Community DRM hazard mapping and planning 4. Groundwater monitoring and groundwater use survey	Outputs 1. Orientation system for new civil servants/officials 2. Technical support for DRM Committees 3. Technical support and capacity building for Pourashava Engineers	Outputs 1. Funds Design/Management Plans 2. Locally managed funds for each subject pourashava 3. Locally managed groundwater conservation schemes

Component A- Climate impact and disaster management technical tools

A.1: Downscaled climate model outputs

Downscaled climate modeling serves as the foundation for investments planning, capacity building, and disaster risk management.

- The downscaling tools such as PRECIS and REGCM will be used for generating downscaled parameters of climate. Develop a series of alternative scenarios which is to be validated and calibrated with the observed climate data for selection of the General Circulation Model (GCM) outputs.
- After selection of a number of good CGMs, an ensemble output will be generated for the future times up to the end of the century.
- Data so generated will be archived in a user friendly format and would be made available for other climate resilient/ adaptation projects of Bangladesh. An internet based approach will be developed so that the climate change adaptation scientist working for a Bangladesh project may have easy access to the data on request. In this way the resource may be optimally used.
- The high resolution climate output is to be analyzed to develop climate scenarios for future time levels 2030, 2050 and 2065 for climate parameters for the study pourashavas/ towns. The scenarios of sea level rise should consider the local factors such as subsidence and sedimentation.
- The consultants will monitor the tropical cyclone activities using the downscaled model projections of the pressure and vorticity fields. They will also develop empirical relations of cyclone frequency and intensity variations with changing climate.
- Consultants will produce scenarios of future cyclone activity at different future time levels synthesizing the results obtained from the downscaling of GCM results and those obtained from empirical models.
- Consultants will generate scenario of future tropical cyclone probability of different intensity.
- The consultants will also make projections of storm surges under enhance level of tropical cyclone intensity and sea level rise.
- For each projection, an analysis of uncertainties will be performed.
- The results may be published for wide range of dissemination to the user community. This will provide authenticity and importance of the science aspect of the activities.
- The consultants will identify impacts of climate change and assess vulnerability of the selected pourashavas and make recommendations for both structural and non-structural adaptation.
- The consultant team will train the relevant stakeholders to generate awareness on climate change impacts, warning system, preparedness and DRM.

Specific deliverables include:

- Baseline scenarios characterizing the climate of the study towns.

- A review of the climate projection over Bangladesh published by different sources and developed by various projects on climate change impacts and adaptation.
- The projections of climate change and Sea Level Rise for different time levels of interests for the selected pourashavas.
- The impacts, vulnerability and adaptation options identified in changed scenario of climate and sea level rise.
- A database of climate outputs and correlated assumptions shall be provided to pourashavas, interested community groups, NGOs, government departments and shall be made publically available.
- Projection of frequency and intensity of tropical cyclones impacting the study area.
- Projection of probability of occurrence of tropical cyclones of different intensity.
- Projection of storm surges in an increased intensity of tropical cyclones and increased sea level.
- A database of cyclone projections and correlated assumptions shall be provided to pourashavas, interested community groups, NGOs, government departments and shall be made publically available.

A.2: Flood inundation monitoring and mapping

Flood inundation due to monsoon rainfall storm surges associated with tropical cyclones and tidal inundation causes loss and damage to structures. The damage is high if the inundation level and the duration of inundation is high. The assessment of damage and the projection of possible future impacts is therefore important for identifying planning and implementing appropriate adaptation measures.

- For each town, the consultants will collect field data/measurements at at least 40 points on the ground level, flood height and duration of the flooding due to tropical cyclone Sidr (15 November 2007), extreme tidal flood and worst monsoon rainfall flood in 2012 and 2013, along with details of the events that contributed to the flooding – rainfall, tidal conditions, drainage layout¹⁹, flood defense conditions and status²⁰. Data, including DEM data, shall be collected for areas outside the pourashava boundaries that are linked to catchments within the pourashavas.
- Using GIS technology, separate historic inundation maps will be prepared for each town for flooding due to: a) tropical cyclone Sidr, b) the extreme tide and c) worst monsoon flooding in 2012 and 2013. The Digital Elevation Model (DEM) should be overlaid on the flood maps. Contours should be shown at 0.1m intervals. Inundation levels should be shown for each catchment at intervals of 0.25m.
- Using the above data the number of structures (Katcha, Semi Pucca and Pucca houses), commercial building and public/community buildings and others and the extent of their damage will be determine extracted using GIS for input for the damage assessment, subject to availability of pourashava master plan data.²¹

¹⁹ Especially where drains and channels transfer water between catchments.

²⁰ Including outfall capacities, operating condition, status, etc.,

²¹ If suitable master plan data are not available, data will need to be collected either from tax & cadaster records,

- With the assistance from drainage experts and the hydrologist the consultants will derive future inundation scenarios for 2015, 2050 and 2100 for 1:2, 1:5 and 1:10, 1:25 year return interval design storms. The risks and impacts of drainage congestion due to adverse tidal conditions, outfall capacities, poor drainage condition, layout, encroachments, etc., shall be assessed, and flooding from connected areas outside the urban core. The storm durations selected shall take account of these factors too.

Specific activities/deliverables, with the active involvement of relevant pourashava staff, include:

- Inundation maps due to Sidr and worst case of flooding due to extreme tide and monsoon rainfall in 2012 and 2013 and an assessment of the probabilities and impacts of the contributing factors.
- A database of structures (Katcha, Semi Pucca and Pucca houses, commercial building and public/community buildings and other installations) depending on the availability of pourashava master plans, be used for impact and damage estimation and assessment.
- Future projection of monsoon inundation for 2015, 2050 and 2100 the selected pourashavas for a selection of events based on rainfall, primary drainage capacity, etc., and the data to be collected for improved projection them.
- Future projection of seasonal and climate effects on tides, tidal flooding and drainage efficiency, etc., for 2015, 2050 and 2100 for the average and maximum events for the selected pourashavas, and the data to be collected for improved monitoring and prediction of possible changes and impacts.
- A database of inundation projections and correlated assumptions shall be provided to pourashavas, interested community groups, NGOs, government departments and shall be made publically available.
- A general methodology for determining the need for strategies and methods to manage urban and rural flooding separately/differently according to local circumstances²², development, climate impacts, etc.; the positive and negative impacts of different levels of implementation, i.e. do nothing, implement in full and staged-implementation; the stakeholders to be involved in establishing and maintaining the necessary infrastructure and procedures²³, etc. To be used by the pourashavas, LGED and other stakeholders, as appropriate.

A.3: Cyclone and flood loss and damage assessment/tool building

Damage loss assessment and building appropriate tools is an important task of the consultants for adaptation of climate change and disaster impacts.

- The consultants will develop the damage loss due to wind and surges. The field level damage and loss data from the pourashava and all possible sources need to be collected.

census records, or observation using street survey to determine single, double & multi-storey properties.

²² Including population, urbanisation, economy, tide and/or river/sea level rise, rainfall, topography, primary flood defense requirements and infrastructure, etc,

²³ To include primary flood defense and regulating infrastructure.

- The consultants will prepare the future damages and loss following the future projection of the tropical cyclone intensity.
- The consultant will prepare the loss and damage of due to the future inundation. The data of affected houses, buildings and properties derived by GIS from the pourashava master plan maps are to be used.

Specific activities/deliverables include:

- The activity will provide the tools for disaster damage and loss assessment for the tropical cyclones and inundations by tide and monsoon flooding.
- Future scenarios of inundation (maps) and damage assessments due to tropical cyclones, tidal flood and monsoon floods.
- A database of flood loss and damage assessments and projected loss or damages and correlated assumptions shall be provided to Pourashavas, interested community groups, NGOs, government departments and shall be made publically available.

Component B – Community-level awareness raising and warning systems

B.1: Community Awareness Raising

This sub-component includes design and support for a communications campaign to encourage effective stakeholder engagement, increase awareness and improve the knowledge of multiple stakeholders of the impacts of climate change; as well as address climate change adaptation and disaster risk management communication issues in the coastal towns of Bangladesh. Based on interviews in each town, the consultant team will prioritize communities in each Pourashava that are particularly vulnerable (the poor, slum dwellers, women, children, elderly, disabled) to anticipated climate change and come up with a specific community outreach program to increase awareness of climate change, disaster hazards, and approaches to address these hazards. This outreach program will focus on spreading the word to schools, and in marginal communities focusing on communications approaches that are audience-appropriate. It shall be performed in conjunction with B.3, community level hazard mapping and planning.

Specifically, the activities/deliverables shall include:

- Consult with key implementing partners for the project including the Pourashava, Cyclone Preparedness Program, LGED and other relevant agencies on issues relating to public awareness that should be addressed in the implementation of the project.
- Design and implement a comprehensive, effective climate change awareness and educational campaign which should include; culturally relevant materials and resources, and the use of innovative means as appropriate, focusing on climate change adaptation and disaster risk reduction.
- Prepare Pourashava-level communications strategy and action plan in consultation

with community groups, local and national NGOS, school officials, Pourashava officials, and others as appropriate.

- Launch of Pourashava/community level climate change awareness campaign geared towards the targeted groups.
- Develop and produce audio-visual kits and other educational material on climate change
- Prepare, edit and disseminate information on climate change adaptation and disaster risk reduction in schools, neighborhood and Pourashava level meetings.
- Conduct training seminars, outreach meetings and workshops for the target communities.

B.2: Fishing community early warning system

This sub-component will assess existing cyclone preparedness and identify an approach to improve it for the fishing communities in CTIIP towns. In collaboration with the Comprehensive Disaster Management Program, local cyclone preparedness programs, and Pourashava Disaster Management Committees, the consultants shall (1) examine historical vulnerabilities and assess the reason why fishing communities were vulnerable and suffered losses from tropical cyclones, (2) engage with fishing communities to determine what messages, equipment and systems would be effective in reducing disaster risk, and (3) determine what resources in messaging, equipment, and systems are required to reduce disaster risk through an improved warning system, and (4) come up with and implement a plan to implement an improved warning system. The four phase I towns will be the basis for identifying and developing a warning system, and will be the sites for the pilot phase, once CTIIP is implementing sub-projects in phase II towns the system will be applied to these towns as well.

Specifically, the activities/deliverables shall include:

- Vulnerability Assessment: prepare a report that summarizes the key vulnerabilities fishing communities face for cyclones and, based on literature and discussions with fishing communities and local and national disaster preparedness programs, outlines the promising options to reduce vulnerabilities through a comprehensive fishing community warning system.
- Engage with fishing communities and disaster programs to evaluate options for implementing a disaster warning system, and design a disaster warning system.
- Pilot this warning system with fishing communities in the four Phase I pourashavas in conjunction with disaster preparedness programs and the Pourashava Disaster Management Committees.
- One year following implementation in Phase I towns, assess the effectiveness of the system and propose improvements in system design and management.
- Implement an improved warning system in Phase I and Phase II towns.

B.3: Community level hazard mapping and disaster management planning

This sub-component will, based on findings of the CTIIP PPTA and CDTA reports, identify the most vulnerable communities and work with these communities to better identify climate-

induced weather hazards (cyclones, monsoon flooding, and others as identified). It will then work with these communities to better understand the nature of the hazards, identify hotspots, and come up with community-based approaches to reduce hazards. The sub-component will be done in conjunction with experts and the findings from Component A (Climate and disaster technical tools), and with the Urban Planning TA, in particular informing preparation of pourashava-level hazard maps and urban plans. The findings from the hazard mapping and disaster management planning shall inform the community level awareness raising, and also support identifying appropriate community-based projects to fund under Component D (Locally managed climate resilience funds).

Specifically, the activities/deliverables shall include:

- Facilitated hazard mapping of all vulnerable communities. The scale of these hazard maps shall be neighborhood level, hence, it could be that several maps are formulated for one pourashava ward. Maps shall include major community features and assets, and mapping will be undertaken in a manner where a wide representative sampling of community participants (gender, income level, age) are included in the exercise.
- Aggregation of maps and comparison of the hazards to prepare pourashava analyses of priority areas and hazards that need to be addressed. Transmittal of maps to the urban planning TA to inform their pourashava level hazard mapping.
- Following hazard mapping, facilitated presentation of the results to the vulnerable communities, cyclone preparedness program staff, and pourashava disaster management committees. Following presentation, discussion by stakeholders of the implications on disaster management and possible projects that may be instrumental in reducing disaster risks.
- Facilitated formulation of community-level plans based on all the above activities. Plans might include awareness raising (that may be resourced under Component B.1), community-scale projects (that may be resourced under Component D.2), and/or planning interventions that may be implemented in conjunction with the urban planning TA.
- Plans of action to mitigate the impacts of hazards, e.g. increase cross-drainage of roads, install and enlarge culverts, manage irrigation/internal water levels pro-actively during forecast storms, e.g. close polder outfall sluices at low tide; install periphery embankments and regulating structures for differentiated-priority management of urban and rural flooding; drain and channel O&M and solid waste collection and disposal; development and encroachment control, though both formal and social means, etc.

B.4: Groundwater monitoring and groundwater survey

- Developing a framework for groundwater monitoring for Barisal Division.
- Monitoring of sentinel wells for early warning of seawater intrusion risks
- Early warning system for seawater intrusion impacts for coastal wells so that mitigation strategies can be put in place.
- Undertake a survey of groundwater wells and their use for target Unions in Barisal Division.

Component C – Disaster preparedness through support to Pourashava Disaster Risk Management Committees

C.1: Orientation system for civil servants/pourashava disaster committee officials

This sub-component will provide new civil servants and members of the committees with background on the importance of a pourashava level disaster committee, the role of the committee, and basic tools and examples that committee members shall be able to employ to help prepare and manage committee meetings. The sub-component will be done in conjunction with experts and the findings from Component A (Climate and disaster technical tools) and Component B (Awareness Raising).

Specifically, the activities/deliverables shall include:

- A literature review of good practices in organization and management of municipal-level disaster management committees.
- A presentation (less than 25 slides) that outlines the roles of the committee, its members, and the steps in effective management of disaster committees.
- Background documentation (culled from existing sources) that can provide committee members with the tools needed to understand the key issues and options for appropriate pourashava level disaster management.
- For each pourashava, the results of this work shall be presented (separately) to the Secretary General and Mayor, and to the Committee at a meeting.
- Following each meeting, a short meeting report shall outline how the material was received, what was viewed as most helpful, and what changes in the orientation system would improve it for future use.
- Following completion of presentations to all four batch 1 pourashava disaster committees (within one year of project inception), revisions of the orientation system shall be undertaken to be used by all CTIIP Pourashava disaster committees.
- Phase II orientation meetings and short meeting reports as each new Pourashava disaster committee is organized.

C.2: Technical support and capacity building for the Pourashava Disaster Management Committees

This sub-component will provide ongoing support to the Pourashava Disaster Committees, including integration of CTIIP capacity building and technical work, and training, technical and research support to inform Committee plans and decisions. The sub-component will be done in conjunction with experts and the findings from Component A (Climate and disaster technical tools) and Component B (Awareness Raising).

Specifically, the activities/deliverables shall include:

- Interviews with Pourashava officials and civil servants on the priorities and constraints in disaster risk management at the municipal level.
- Interviews with higher-level (Upazila, District, National) DRM committees to understand their roles and how the Pourashava level disaster committee shall collaborate.

- Preparation of a short report that can serve as the background for terms of reference (or similar document) for each Pourashava disaster committee, presentation of this to committee and based on feedback revisions for adoption.
- Serve (for a period of 2 – 3 years) as a liaison with Pourashava departments, higher level government departments (such as Cyclone Preparedness Program), community groups and research organizations to bring together these parties for committee meetings and follow up activities.
- Provide Committees with technical support in interpreting findings of CTIIP Components A, B, and D during this 2- 3 year initial period.

C.3: Technical support and capacity building for Pourashava Engineers

- Training of engineers in groundwater governance at Pourashava level
- Training in groundwater monitoring and mapping.

Component D – Locally managed climate resilience funds

D.1: Fund design and management plans

This sub-component will result in town-specific fund designs and management plans for each CTIIP project town. Locally managed funds have been effective in leveraging local community resources for public investments in housing, public works, and a variety small scale interventions improving the public good in poor and marginal communities, including informal (slum) settlements. There is growing evidence that such funds can be used for effectively resourcing community-level climate adaptation projects. Fund design, however, will vary from town to town depending on local needs and capacity, organizations available to manage funds, and the capacity and responsiveness of the Pourashava to servicing marginal communities such as slum dwellers, especially if they are on public land such as river banks that are outside polderized areas. As such, the consultant team will have to study the climate vulnerable areas, the institutional frameworks and capacities available for hosting and managing locally managed funds, and the role of the Pourashava in fund management. And while an effective fund model may be formulated, careful attention to governance risks in fund management will be critical, and specific to each town.

Specifically, the activities/deliverables shall include:

- Interviews with local community groups, Pourashava officials, local business community and NGOs to evaluate and, if available, identify candidate bodies to manage a local fund.
- Following identification of candidate bodies, detailed discussions/due diligence regarding capacities to manage a fund.
- If no candidate identified, work with community groups and the Pourashava disaster committee to come up with plan to organize a local fund association.
- Creation of a business plan for the locally managed fund, with relevant stakeholders. Design shall explicitly focus on mandate to provide resources to the poor and marginal communities in each town, and establish basic criteria for funding decisions (e.g., financial, needs assessment, feasibility, etc.). Design of project proposal template and project monitoring report.
- Prepare required legal structure, articles of incorporation, and other legal/regulatory documentation. Designation of board of directors (or similar) and management structure.

D.2: Fund implementation capacity building and technical support

Following design of a fund, the CTIIP shall provision resources for a locally managed fund. For each town, a fund will be incorporated and the group who manages the fund shall require capacity building and technical support in fund management, reporting and oversight.

Specifically, the activities/deliverables shall include:

- Training in basic fund management (accounting, legal, etc.) for the board of directors.
- Training in how to formulate and evaluate project proposals.
- Training in reporting on fund activity and reporting requirements.
- As needed, technical assistance to the funds for the first two years of operation.
- For each fund, an assessment report shall be completed following two years of operation. This shall evaluate the successes of each project, its challenges, and areas requiring improvement.

D.3: Locally managed groundwater conservation schemes

- Pilot Managed Aquifer Recharge schemes for groundwater conservation
- Rainwater harvesting in areas where potable groundwater is not available.

3. Implementation Phasing and Outputs

The outline phasing of component implementation is indicated in **Figure 2**.

Figure 2: Indicative Phasing of Climate Change and Disaster Preparedness Technical Assistance Component

Components	CTIIP Phase 1												CTIIP Phase 2							
	Year 1				Year2				Year 3				Year 4				Year 5			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
A.1 Climate and Disaster Technical Tools / Vulnerability and Adaptation Assessment																				
A.2 Flood inundation monitoring and mapping																				
A.3 Cyclone and flood loss and damage tools																				
A.3: Regional groundwater model for Barisal Division																				
B.1 Community awareness raising events																				
B.2 Fishing community early warning system																				
B.3 Community DRM hazard mapping and planning																				
B.4. Groundwater vulnerability mapping																				
C.1 Orientation system																				
C.2 Technical support for DRM Committees																				
C.3:Technical support and capacity building for Pourashava Engineers																				
D.1 Funds design/management plans																				
D.2 Set up and support running of funds																				
D.3:Locally managed groundwater conservation schemes																				
Source: PPTA Consultants																				

3. GOVERNANCE AND INSTITUTIONAL STRENGTHENING

The overall TA objective is to strengthen urban local governments' institutional capacity in general and mainstreaming climate resilient issues in the planning process of the project participating pourashavas in particular. The goal is to achieve climate resilient institutional development in the pourashavas over the medium to long term.

There are three critical areas of where interventions are needed for supporting sustainable institutional arrangements in relation to climate change:

1. Review the existing organizational set up of the pourashavas in line with the existing Local Government (Pourashava) Act, 2009 which encompasses a range of functions and activities.
2. Activation of the town level co-ordination committees (TLCC) and ward level coordination committees (WLCC) so as to put in the citizens' participation in the planning process of the pourashavas.
3. Establishment and development of a strong and effective monitoring and evaluation (M&E) system in the project participating pourashavas.

These three aspects are the vital areas not for only sustainable municipal capacity development but also helpful for mainstreaming the climate change resilient issues in the pourashavas' affairs.

D. CONSULTANTS INPUT AND STAFFING REQUIREMENTS

The outline personnel requirement is shown in **Table 3**.

Table 3: Outline Personnel Requirements

Position	Technical Assistance Component	Person-month	
		International	National
International Consultants:			
1. Urban Planning and Development Specialist / Team Leader	Urban planning	18.5	
2. Urban Climate Change Adaptation and DRM Specialist	Urban planning	5.5	
3. Architect / Structural Engineer	Urban planning	3.0	
4. Urban Disaster Risk Management Specialist	Climate adaptation & DRM	6.0	
5. Climate Modeler and Dynamic Downscaling Specialist	Climate adaptation & DRM	5.0	
6. Drainage Engineer	Climate adaptation & DRM	6.0	
Sub-total (International Consultants)		44.0	
National specialists:			
1. Urban Planning and Development Specialist/ Deputy Team Leader	Urban planning		39.5
2. Urban Climate Change Adaptation and DRM Specialist	Urban planning		8.5
3. Architect/ Structural Engineer	Urban planning		3.0
4. Municipal Infrastructure Specialist	Urban planning		3.0
5. Municipal Finance Specialist	Urban planning		2.0
6. Capacity Development Specialist/ Training Coordinator	Urban planning		6.0
7. Facilitators (Urban Planning)	Urban planning		20.0
8. Social Safeguards Specialist	Urban planning		2.0
9. Environmental Safeguards Specialist	Urban planning		1.0
10. GIS Technician/Specialist	Urban planning, climate		18.0
11. Computer Database Technician/Specialist	Urban planning		1.5

Position	Technical Assistance Component	Person-month	
		International	National
12. National Disaster Risk Management Expert	Climate adaptation & DRM		14.5
13. National Climate and Adaptation Expert	Climate adaptation & DRM		8.0
14. Flood hydrologist/ modeler	Climate adaptation & DRM		3.0
15. Infrastructure economist (national)	Climate adaptation & DRM		2.5
16. National fund/micro-credit expert	Climate adaptation & DRM		8.0
17. National fund/banking legal expert	Climate adaptation & DRM		1.5
18. Institutional and Governance Expert	Institutional, governance		12.0
19. Groundwater Hydrogeologist/monitoring/ mapping	Climate adaptation & DRM		14.0
Sub-total (National Consultants)			168.0
Total Consultant Inputs		212.0	
TL = Team Leader, DTL = Deputy Team Leader, GIS = Geographical Information System			

E. QUALIFICATIONS, EXPERIENCE AND TERMS OF REFERENCE OF TEAM MEMBERS

No.	Position	Required Qualifications	Required Experience	Key Tasks
International Specialists				
I.1	Urban Planning and Development Specialist / Team Leader	Masters or equivalent degree in urban planning, urban development or a related field	At least 20 years of experience, of which preferably 15 years involved in planning and design of urban development projects and will have a preferably 10 years proven work experience and skill in similar position in similar developing countries especially in South Asia	<ul style="list-style-type: none"> Managing and leading the consultant team in all aspects of the TA (described in D 'Scope of Work') and managing day to day co-ordination and liaison with members of the PIU and reporting to the PMU Project Director as required. Ensuring optimal coordination with the UMSU, DDS and PDA. Reporting to the Steering Committee, in association with the PMU Project Director, as required. Ensuring optimal stakeholder engagement in all aspects of the TA. Undertaking quality assurance of all TA outputs. Provide overall technical management of the design and completion of the Urban Planning components (Component 1).
I.2	Urban Climate Change Adaptation and DRM Specialist.	Post-graduate degree in a built environment professions or environmental management, or related field	At least 15 years of experience in DRM and CC adaptation issues in urban planning and development, and with experience in working on donor-funded projects	<ul style="list-style-type: none"> Technically lead the DRM and climate change adaptation aspects of all Urban Planning sub-components including: Reviewing existing VAA methods in Bangladesh and internationally and propose a method that is compatible with the Bangladesh context. Consolidating data on projected climate change and impacts at the town-level, coordinating the development of hazard maps and identifying disaster hot spots, and preparing the basis for developing a disaster management plan. Identifying adaptation measures required in urban master (land use plans) revisions and building standards. Leading on the production of a concise, practical, and user-friendly guide on VAA based on practical application. Advising and supporting the development of DRM and climate change adaptation components in building urban planning capacity (Urban Planning sub-component D).
I.3	Architect / Structural Engineer	Post-graduate degree in architecture or civil/structural engineering	At least 15 years of experience in architectural and/or engineering in low-income countries with a preference for practical experience of designing for disaster risk, and with experiences in working on donor-funded projects.	<ul style="list-style-type: none"> Technically lead the development of Urban Planning sub-component B.1 (Climate change adaptation building standards) including: Reviewing current building standards and practice. Assessing climate change impacts on building design, building materials and site design. Designing and facilitating stakeholder working sessions to identify current practice and anticipated changes in response to climate trends. Developing a concise generic 'Climate Change Adaptation Building Standards Guide' for the coastal zone towns. Advising on the review and revamping of development and building control systems.

No.	Position	Required Qualifications	Required Experience	Key Tasks
				<ul style="list-style-type: none"> • Advising and supporting the development of building standards aspects in building urban planning capacity (Urban Planning sub-component D).
I.4	Urban Disaster Risk Management Specialist	Degree in physical or social sciences, with professional training in Disaster Risk Management.	Minimum of 15 years of professional experience in disaster risk management, disaster response, humanitarian assistance planning, and/or related fields, especially in planning and response to flooding and cyclone events. He/she should have good communication skills.	<ul style="list-style-type: none"> • Provide support as required in undertaking the climate change impacts and vulnerability assessments for component A.1. • Provide support/reviews as required in undertaking the future damage and loss projections for tropical cyclone intensity and future inundation under component A.3. • Provide support as required preparing communications strategy, awareness campaigns, and conducting training and workshops for target communities in disaster risk awareness and management under component B.1. • Lead the technical aspects of component B.2, fishing community early warning system with the support of the national DRM expert. • Support the national DRM expert on implementing component B.3, community level hazard mapping and community level disaster management planning. Coordinate and support integration of the hazard mapping with town-level hazard mapping and urban planning. • Support preparation of an orientation system for pourashava level disaster management committee officials and civil servants supporting these committees (C.1) and support the national DRM expert in providing technical support and capacity building to the Committees.
I.5	Climate Modeler and Dynamic Downscaling Specialist	Post-graduate degree in climate sciences, meteorology, mathematics, computer sciences or related field.	At least 15 years of experience in climate modeling, including dynamic downscaling, with experiences in working on donor-funded projects.	<ul style="list-style-type: none"> • Lead all climate modeling activities, including use of downscaling tools to generate downscaled climate parameters for coastal areas. Analyze climate outputs and consider local factors such as subsidence and sedimentation in sea level rise scenarios. • Develop empirical cyclone frequency and intensity relations, to improve projections of future probabilities. • Analyze uncertainties of all climate modeling scenarios. • Assess impacts of climate outputs for selected pourashavas, and communicate/train relevant stakeholders on climate outputs, interpretation of these, and impacts assessments. • Provide guidance to national experts and international drainage engineer as required for cyclone and flood loss and damage assessments, climate level community hazard mapping, and technical support for the pourashava disaster management committees.
I.6	Drainage and flood control Engineer	Post-graduate degree in civil engineering or a related subject	At least 10 years of experience in drainage and flood control design and management, and at least 5 years experience in working on donor-funded projects. Experience of working in tidal locations and multi-	<p>Working with the Hydrologist/Flood modeler engineer, undertake the work required for successful completion of item A.2 – Flood inundation monitoring, projection and mapping.</p> <ul style="list-style-type: none"> • Select and survey of storm, tide and rain-based flooding, including for flooding of derived from outside the affected urban areas. • Determine the flooding scenarios to model for 2015, 2050 and 2100 and appropriate drainage congestion situations. • Determine the impacts of the flooding scenarios selected and propose suitable mitigating actions, both infrastructure and organizational, and the responsible stakeholders.

No.	Position	Required Qualifications	Required Experience	Key Tasks
			institutional contexts is essential.	<ul style="list-style-type: none"> • Prepare the required databases for distribution to the relevant stakeholders. • Prepare a general methodology for determining the need for strategies and methods to manage urban and rural flooding separately/differently and the stakeholders to be involved. • Recommend climate adaptation features to incorporate into drainage and flood control infrastructure and management arrangements.
National Experts				
N.1	1. Urban Planning and Development Specialist/ Deputy Team Leader	Master's degree in urban planning, urban development or related field	At least 15 years of experience in designing and managing urban development projects, a post-graduate degree in civil engineering with experience in donor funded projects. Preference will be given to those with climate change experience.	<ul style="list-style-type: none"> • Support specialist I.1/TL in all aspects of managing and leading the consultant team in all TA components (described in D 'Scope of Work') and managing day to day co-ordination and liaison with members of the PIU and reporting to the PMU Project Director as required. • Ensuring optimal coordination with the UMSU, DDS and PDA. • Reporting to the Steering Committee, in association with the PMU Project Director, as required. • Ensuring optimal stakeholder engagement in all aspects of the TA. • Undertaking quality assurance of all TA outputs. • Provide overall technical lead on the day-to-day implementation of the Urban Planning components (Component 1).
N.2	Urban Climate Change Adaptation and DRM Specialist	Degree in a built environment professions or environmental management, or related field	At least 15 years of experience in DRM and CC adaptation issues in urban development and planning, and with experience in working on donor-funded projects, and with experience in working on donor-funded projects	<ul style="list-style-type: none"> • Provide national expertise in collaboration with specialist I.2 to support the development of the DRM and climate change adaptation aspects of all Urban Planning sub-components including: • Supporting the Review of existing VAA methods in Bangladesh and internationally and propose a method that is compatible with the Bangladesh context. • Consolidating data on projected climate change and impacts at the town-level, coordinating the development of hazard maps and identifying disaster hot spots, and preparing the basis for developing a disaster management plan. • Identifying adaptation measures required in urban master (land use plans) revisions and building standards. • Supporting the production of a concise, practical, and user-friendly guide on VAA based on practical application. • Advising and supporting the development of DRM and climate change adaptation components in building urban planning capacity (Urban Planning sub-component D).
N.3	Architect/ Structural Engineer	Bachelor degree or Masters in architecture or civil/structural engineering or equivalent from any recognized university	At least 15 years of work experience in architectural and/or engineering with a preference for practical experience of designing for disaster risk in Bangladesh, and with	<ul style="list-style-type: none"> • Provide national expertise in collaboration with specialist I.3 to support the development of Urban Planning sub-component B.1 (Climate change adaptation building standards) including: • Supporting the review of current building standards and practice. • Assessing climate change impacts on building design, building materials and site design. • Designing and facilitating stakeholder working sessions to identify current practice and

No.	Position	Required Qualifications	Required Experience	Key Tasks
			experiences in working on donor-funded projects.	<p>anticipated changes in response to climate trends.</p> <ul style="list-style-type: none"> Supporting the development of a concise 'Climate Change Adaptation Building Standards Guide' for the coastal zone towns. Advising on the review and revamping of development and building control systems. Advising and supporting the development of building standards aspects in building urban planning capacity (Urban Planning sub-component D).
N.4	Municipal Infrastructure Specialist	Degree in municipal engineering or other relevant fields	At least 15 years of relevant experience in supporting the preparation of municipal plans and (pre)-feasibility studies.	<ul style="list-style-type: none"> Provide the technical lead on the municipal infrastructure aspects of Urban Planning sub-component C (Infrastructure investment programming) including: Supporting the review methods for capital investment planning in Bangladesh, revise and adapt to climate change adaptation. Confirming infrastructure and service level and coverage gaps and needs. Identifying and assessing the quality of infrastructure assets and supporting the development of an Asset Management Plan. Supporting the formulation of pourashava infrastructure priorities. Supporting the participatory prioritization of short-listed investments based on criteria weighted to climate change adaptation. Advising and supporting the development of urban planning capacity (Urban Planning sub-component D).
N.5	Municipal Finance Specialist	Master's degree in economics/ business administration, finance or other relevant field	At least 15 years of relevant experience in municipal financing and the preparation of (pre)-feasibility studies and/or municipal plans.	<ul style="list-style-type: none"> Provide the technical lead on the assessment of municipal finances and the preliminary assessment of the economic and financial feasibility of priority investment projects (Urban Planning sub-component C.1). Advising and supporting the development of urban planning capacity (Urban Planning sub-component D).
N.6	Capacity Development Specialist/ Training Coordinator	Degree in urban development and planning or a related field	At least 10 years' solid experience in designing and overseeing the implementation of capacity development programs in support of local urban development	<ul style="list-style-type: none"> Provide the technical lead in the implementation of Urban Planning sub-component D.1 including: Designing and coordinating a capacity needs assessment of pourashava staff and elected representatives) and review of training suppliers. Reviewing existing practitioner urban planning courses and materials currently available in Bangladesh. Identifying existing training and training suppliers that are relevant to urban planning in coastal zone towns, and areas for training material development where none is available. Developing an urban planning training program and coordinating its delivery Compiling training modules and materials on the basis of application and feedback.
N.7	Facilitators (Urban Planning)	Degree in urban development, urban planning, community development or related	At least 10 years' experience in local urban planning and development with considerable	<ul style="list-style-type: none"> Provide local (pourashava) level support in the implementation of all sub-components of the urban planning work. Provide practical in-the-job training and technical support in component implementation. Advise other consultant team members on local issues and practical considerations in

No.	Position	Required Qualifications	Required Experience	Key Tasks
		field	experience of working with local stakeholders and communities in designing planning frameworks and responses	component implementation. <ul style="list-style-type: none"> • Ensure all stakeholders are optimally engaged in component implementation. • Support the design, and implementation of, pourashava workshops, focus groups, working sessions and other consultative mechanisms. • Ensure the opportunities for inter-pourashava learning and exchange is maximized.
N.8	Social Safeguards Specialist	Degree in sociology, economics, social anthropology, community development or similar area related to social development	At least 10 years' experience working at a policy and local level, together with the ability to formulate social development strategies/frameworks	<ul style="list-style-type: none"> • Assess the social impact of proposals identified in the MAIP and ensuring sufficient social safeguards. • Review and supplement social development aspects of the VAA, revised Master Plan and MAIP. • Advise on preparing policies and proposals specific to the needs of the urban poor/low-income groups. • Advise on social considerations to support the financial and economic feasibility assessment of MAIP proposals. • Develop training materials on cross-cutting social safeguards, social protection and gender issues in ISABC training programs (climate resilient urban planning, climate change adaptation, and disaster risk management). • Prepare training calendar for special orientation and training sessions on social safeguards, social protection and gender and development policies of Government and ADB for pourashava/PIU, PMU, contractors and NGO personnel. • Conduct orientation and training workshops/ modules for PMU/ PIU/ pourashava officials, NGO and contractors' personnel on social safeguards, social protection and gender issues.
N.9	Environmental Safeguards Specialist	Degree in environmental planning, environmental management or the environmental sciences	At least 10 years' experience local level, together with the ability to formulate environmental strategies/frameworks	<ul style="list-style-type: none"> • Assessing and the environmental impact of proposals identified in the MAIP and ensuring sufficient environmental safeguards. • Reviewing and supplementing environmental planning inputs to the VAA, revised Master Plan and MAIP. • Advising on preparing policies and proposals (with environmental dimensions) specific to the needs of the urban poor/low-income groups • Advising on environmental considerations to support the financial and economic feasibility assessment of MAIP proposals.
N.10	GIS Technician/ Specialist	Degree in geography, urban planning or related area	At least 6 years of practical experience of GIS application	<ul style="list-style-type: none"> • Support the consultant team in the preparation of all digital maps required. • Support and advise on the preparation of other graphical representations (diagrams, illustrations etc). • Support the installation and operation of GIS in the project pourashavas. • Conduct on-the-job training and support for pourashava level GIS users. • Advise the Capacity Development Specialist/Training Coordinator on GIS training needs and issues arising from project implementation.
N.11	Computer Database	Bachelor degree in	At least 6 years of practical	<ul style="list-style-type: none"> • Assist the consultant team in designing municipal facilities and infrastructures using

No.	Position	Required Qualifications	Required Experience	Key Tasks
	Technician/ Specialist	computer science/engineering	experience including at least 3 years in Auto-CAD operation	Auto-CAD. <ul style="list-style-type: none"> • Preparation of drawings and maps. • Preparation and operation of databases. • Any other responsibilities assigned to him/her by Team Leader and the Project Director.
N.12	National Disaster Risk Management Expert	Degree in physical or social sciences, communications, or marketing/public relations with professional training in disaster risk management	At least 10 years' experience in disaster risk management and disaster risk community awareness.	<ul style="list-style-type: none"> • Lead preparation of communications strategy, awareness campaigns, and conducting training and workshops for target communities in disaster risk awareness and management under component B.1. • Lead on the assessment and implementation of B.2, fishing community early warning system, including leading implementation of the pilot system and assessing its effectiveness. • With the support of the international DRM expert, lead component B.3, community level hazard mapping and community level disaster management planning. Coordinate and support integration of the hazard mapping with town-level hazard mapping and urban planning. • Prepare an orientation system for pourashava level disaster management committees officials and civil servants supporting these committees (C.1) and lead technical support and capacity building to the committees.
N.13	National Climate Adaptation Expert	Degree in climate sciences, environmental management, urban planning or related field.	At least 10 years' experience in climate change project implementation, including climate adaptation projects in urban areas.	<ul style="list-style-type: none"> • Support the international climate modeler on climate modeling activities, including use of downscaling tools to generate downscaled climate parameters for coastal areas. Analyze climate outputs and consider local factors such as subsidence and sedimentation in sea level rise scenarios. • Work with the international climate modeler to develop empirical cyclone frequency and intensity relations, to improve projections of future probabilities. • Analyze uncertainties of all climate modeling scenarios. • Lead assessment of impacts of climate outputs for selected pourashavas, and communicate/train relevant stakeholders on climate outputs, interpretation of these, and impacts assessments. • Work with the international drainage engineer/hydrologist and infrastructure economist as required for cyclone and flood loss and damage assessments, climate level community hazard mapping, and technical support for the pourashava disaster management committees. • Provide technical assistance as required in design or locally managed climate resilience funds, and support and review community-based adaptation project proposals for their technical feasibility.
N.14	Hydrologist/ Flood modeler	Degree in hydrology, or related field.	At least 10 years' experience in field-level hydrology and modeling. Experience of working in tidal locations and multi-	Working with the drainage engineer, undertake the work for components A.2, flood inundation monitoring and mapping for each pourashava: <ul style="list-style-type: none"> • Identify the catchments contributing to rain-based flooding • Select 40+ flood inundation survey points and collect/measure of geo-referenced data of flood heights, duration, ground level, etc.

No.	Position	Required Qualifications	Required Experience	Key Tasks
			institutional contexts will be an advantage Experience in drainage engineering a plus.	<ul style="list-style-type: none"> Evaluate 3rd party assessments of potential changes in river regimes, etc., associated with the effects of climate change. Assess tidal changes due to sea level rise and monsoon rainfall and recommend actions to minimize their impacts on in-polder and external drainage channels/khals, outfalls and sluices and flood duration. Inundation mapping for historical flood events, integrating GIS technology to include identification of affected structures for damage assessment under A.3, Derive future inundation and impact assessments for a range of storms from 1:2 – 1:25 year return intervals and different drainage congestion scenarios for 2015, 2050 and 2100.
N.15	Infrastructure economist	Degree in economics or related field.	At least 10 years' experience in costing/performing financial/economic assessments of urban infrastructure projects. Experience with loss/damage assessment a plus.	<ul style="list-style-type: none"> Lead preparation, with support from the climate adaptation expert, drainage engineer and flood hydrologist, of pourashava-level structure databases and cyclone/flood loss and damage assessments and projections under components A.2 and A.3. Proactively provide databases to Pourashavas, community groups, NGOs, and government departments including the cyclone preparedness programs, the National Disaster Management Department, Comprehensive Disaster Management Program, Ministry of Environment and Forests, and Local Government Engineering Department information nodes.
N.16	National fund/micro-credit expert	Degree in finance, development studies, or related field.	At least 10 years experience in locally managed funds, micro-credit schemes, and/or other community based financing.	<ul style="list-style-type: none"> Identify candidate bodies to manage local funds, undertake detailed due diligences regarding capacities to manage funds, and work with community groups/pourashava DRM committee to organize a local fund in each CTIIP pourashava. Working with the designated group in each town, develop a business plan for each pourashava to organize and implement a locally managed fund. Undertake training and capacity building for each locally managed fund. Prepare an assessment report following two years of each funds' operation.
N.17	National fund/banking legal expert	Degree in law with qualification to practice Bangladeshi law.	At least 10 years' experience in banking/fund management law in Bangladesh.	<ul style="list-style-type: none"> Prepare required legal structure, articles of incorporation, and other legal/regulatory documentation for locally managed funds. Provide advice to the fund expert and locally managed fund officers on legal compliance issues, and support preparation of training materials and "train the trainers" on legal issues for the set up and management of locally managed funds.
N.18	Institutional and Governance Expert	Master's degree in urban/municipal development studies/urban engineering or similar discipline or Master's degree in Business Administration with major in a discipline	At least 12 years of working experience in institutional strengthening, capacity/organizational development, institutional reforms in urban/municipal development sector. He/she preferably has good communication skills,	<p>The Specialist will assist the PD/ PMU and project participating Pourashavas in the coastal areas, to effectively address the problems related to development of institutional arrangements and ensuring governance vis-à-vis improve the capacity of the resilience of towns to the projected climate change. He/she will address the critical areas needed for supporting sustainable institutional arrangements in relation to climate change reviewing:</p> <ol style="list-style-type: none"> the existing organizational set up of the Pourashavas in line with the existing Local Government (Pourashava) Act, 2009; activation of Committee on of the Town level Co-ordination Committee (TLCC) and Ward Level Coordination Committee (WLCC) strengthening citizens' participation and

No.	Position	Required Qualifications	Required Experience	Key Tasks
		relevant to organizational management/development	be familiar with participatory approaches of capacity building and training programs.	social accountability in the planning process of the Pourashavas; c. establishment and development of a strong and effective monitoring and evaluation (M&E) system in the project participating Pourashavas. d. assistance to PIUs with compliance of performance criteria. e. reviewing, assessing, and identifying lessons from other ADB and World Bank supported governance improvement projects, and incorporating lessons (financial, institutional, administrative, etc.) into the project design, f. designing a clear and comprehensive mechanism for governance improvement under the project g. identifying capacity gaps to improve governance; h. providing other appropriate capacity development to towns.
N.19	Groundwater Hydrogeologist/monitoring/ mapping	Masters degree in hydrogeology or similar discipline.	At least 10 years experience in hydrogeology and groundwater quality analysis, with field experience in drilling, mapping and surveys. Experience in analyzing borelogs and groundwater vulnerability mapping and undertaking groundwater surveys.	<ul style="list-style-type: none"> • Undertake groundwater assessment, vulnerability mapping, groundwater surveys, and capacity development activities at the local level: • Undertake groundwater resource and groundwater quality assessment from historical records. • Collect, collate and analyze existing data on bore lithology, water levels, salinity and groundwater usage and other water quality parameters. • Design survey to collect information on deep groundwater wells, estimated usage , hours of operation and households served, and record GPS locations and water level and water quality monitoring. • Develop water level and salinity maps for groundwater users and the community • Assist in design of groundwater monitoring network for Barisal Division • Ability to impart knowledge and training for capacity development at the local level • Assist in preparing brochures to enhance community understanding of groundwater impacts to climate change

F. REPORTS, DELIVERABLES AND TIME SCHEDULE

The consultants will submit the following reports:

Deliverable	Month of Delivery ^a	Summary of Contents
Project Management Advisory		
Inception Report	#2	Initial findings, detailed approach and methodology, detailed work plan.
Monthly Report	#2, #3,..., #71, etc	Monthly progress, detailed by sub-project location.
Quarterly Report ^b	#3 ,#6, ..., #66, etc	Quarterly progress.
Annual Report ^b	#12 ,#24, #36, etc	Annual progress.
Special reports (as requested by PMU)	Tbd	Contract management, handover of facilities, confirmation of operations. Shall include report that all safeguards requirements have been complied.
Final Report ^c	At end of assignment	Inputs provided, outputs produced, evaluation of achievements, strengths and weaknesses of the approach, used suggested follow-up actions, assessment of impacts of the services from the Consultant's perspective.

^a Month of delivery (#1 is the first month of the assignment).

^b In accordance with ADB guidelines on progress reports.

^c Will contain last monthly, quarterly and annual report.

G. DATA, LOCAL SERVICES, PERSONNEL, AND FACILITIES TO BE PROVIDED BY THE EA

The EA will establish a Project Management Unit that will be responsible for day-to-day management and organizing the technical and administrative aspects of the project implementation.

The EA will provide the Consultants with suitable office space, office furniture (including a sufficient number of standard desks, chairs, shelves, and closets), lighting, electricity, air conditioning, and access to phone lines. Electricity, communication and other consumables will be at the cost of the Consultants.

The EA will assist the consultant in obtaining all relevant data.

The EA will finance allowances and travel cost of their own staff only.

**DRAFT OUTLINE AND DETAILED TERMS OF REFERENCE
FOR NGO
COMMUNITY MOBILIZATION, COMMUNICATION, BEHAVIOURAL CHANGE**

A. OVERVIEW

The ADB assisted Coastal Towns Infrastructure Improvement Project (CTIIP) is designed to improve and expand municipal infrastructure and related services in selected *pourashavas* (municipalities) in coastal areas of Bangladesh, incorporating climate change resilience measures. The low-lying deltaic coastal area of Bangladesh is highly vulnerable to severe weather events such as tropical cyclones in the Bay of Bengal and storm/tidal surges, resulting in extensive flooding, backup of sewage, wind damage and loss of human lives. Existing urban infrastructure in *pourashavas* such as water supply systems, sanitation facilities, roads, bridges and boat docking stations is generally inadequate, and suffers a great deal of damage during such events. Modeling studies (conducted during the PPTA) indicate that cyclones will intensify in the future owing to increased sea surface temperatures in the Bay of Bengal and sea level rise is expected to exacerbate the vulnerabilities of coastal towns. The impacts of climate change on coastal towns are anticipated to be significant.

The socio-economic survey and group discussions conducted as part of the PPTA with people from different income groups in the four *pourashavas* reveal the need for awareness creation. A large proportion of community members, both male and female, lack awareness on hygiene practices and solid waste management at household and community levels, impacting health and environment. FGD findings suggest that the poor are the worst sufferers due to inadequate service access and poor sanitation and hygiene practices. The poor also bear the brunt of disasters and are often least equipped to deal with them.

The aim of CTIIP is to build climate proof infrastructure and resilient communities. The Project is proposed to be financed through a sector loan from ADB; the first batch of 4 towns includes Amtali, Galachhipa, Pirojpur and Mathbaria. Complementing the physical infrastructure components will be project management consultancy support, institutional development and capacity building consultancy support and NGO support for community mobilization, communication and awareness raising on climate change adaptation and resilience building, hygiene and behavior change.

B. OBJECTIVES

The Government of Bangladesh (GOB) intends to procure the services of a reputable non-government organization (“the NGO”) to provide services for community-based awareness raising and assistance for implementation of the resettlement plan to support the Project Management Unit (PMU) in the Local Government Engineering Department (LGED) for implementation of the ADB-funded Coastal Towns Infrastructure Improvement Project (CTIIP). The purpose of the PMU is to manage, coordinate and monitor project activities.

The services will provide support to the LGED (as Executing Agency and Project Proponent) for community-based climate adaptation and disaster preparedness, and awareness raising on the project, on behavioral change in water, sanitation and hygiene (WASH) activities, as well as awareness raising on the resettlement framework, entitlements of affected persons and perform activities to support implementation of the resettlement plan, as appropriate. The NGO will also help form water and sanitation user groups to ensure sustainability of community facilities provided under the project.

The NGO should liaise closely with the other technical assistance teams engaged under the

project.

C. DETAILED SCOPE OF WORK

The NGO will have four major tasks:

- (1) Creating awareness among the people, especially the poor and vulnerable in disaster-prone, climate vulnerable hotspots about climate change adaptation and disaster risk reduction and preparedness.²⁴ This will include awareness on safe evacuation routes, understanding and dissemination of early warning signals and actions/steps to be taken in the event of cyclones and/or any other disaster, actions to be taken to avoid losses and reduce disaster risks for the climate vulnerable coastal poor. The NGO will facilitate community based disaster preparedness specific to each *pourashava* under the project.
- (2) Conducting a Water, Sanitation and Hygiene (WASH) Campaign among all sections of the population across the 4 *pourashavas*, to ensure improved health, sanitation and hygiene outcomes. The Campaign will be implemented through a group of citizens (educated people, religious and community leaders) identified with the support of *pouroshava*, to help motivate more people and disseminate information under the WASH campaign. The WASH campaign will target men and women community members from all income groups.
- (3) Community mobilization and formation of water and sanitation user groups (WSUG) wherever community facilities are proposed under the project and training of community members on 'how to use the facility', minor maintenance and repairs, as a sustainability initiative. The NGO will target women as agents of change in managing water supply (through common water sources e.g. standpipes and/or hand deep tubewells, wherever required or proposed) and both men and women in management of sanitation facilities and hygiene and sanitation practices in their communities including solid waste disposal practices. WSUGs will be run by a management committee, which will have both men and women members, including those from disadvantaged sections. The NGO will train the committee members and any other interested community member in financial management, conflict resolution and minor repairs and maintenance work. It will generate awareness on water use practices, cost of water production and the importance of paying for water in order to enjoy and demand a better water supply service. The groups will take responsibility for payment of nominal charges for maintenance of common facilities by members.
- (4) Awareness creation among the community on the project and its envisaged benefits, potential negative impacts, both temporary and permanent, grievance redress mechanism, entitlements of affected persons, jobs available under the project etc. The NGO will provide support to affected persons (AP) for grievance registration and follow-up. In addition, it will work with the PMU, PIUs and contractors appointed for the project to ensure that all affected persons receive their entitlements.
- (5) Awareness creation on the importance of school attendance for girls and boys and use of health services by disadvantaged groups.

The NGO/partner organization shall be the link between the PIU/*pouroshava* and the communities, including the poor and vulnerable.

²⁴ The consultation and participation plan (CPP) for the project outlines specific outreach activities to raise awareness and ensure meaningful participation of communities and stakeholders.

Specific Tasks:

The NGO will work in close coordination with the *pouroshava*/PMU to:

- (i) prepare a climate vulnerability and poverty map of the community;
- (ii) identify and enlist the support of community leaders/members for the awareness campaign on climate resilience, the WASH campaign, awareness on the project and its impacts etc. and implement the campaign with their involvement;
- (iii) ensure dissemination of key messages that are gender-sensitive, in a format easily understood by the service user group; prepare pictorial and easy-to-grasp communication tools and training materials for community mobilization and awareness generation;
- (iv) undertake the public information campaign in the local language to inform affected communities about the project, demonstrate the service of climate-resilient facilities provided under the project, potential temporary/permanent impacts of the project, both positive and negative (as applicable), the project's resettlement policy, Resettlement Framework and entitlement packages, likely benefits and opportunities offered by the project (e.g. improved services, job opportunities for skilled or unskilled work, transitional allowances), eligibility and procedures to avail/access the same; and undertake timely dissemination of information on implementation schedule and possible disruptions during project implementation.
- (v) create awareness on social protection issues such as importance of enrolment and school attendance, and timely use of health services by disadvantaged groups;
- (vi) identify APs through surveys and assist the Pouroshava / LGED to distribute identity cards to eligible persons. Assist APs in getting compensation against loss as a result of the project and in receiving resettlement assistance as per the Resettlement Plan/ Entitlement Matrix. Generate awareness on the grievance redress procedures, expected average response time and assist APs with grievance registration and follow up;
- (vii) identify vulnerable APs through surveys and ensure their inclusion in project benefits including access to services provided by project, project-related employment etc.
- (viii) organize training of community members (men and women) in operation and maintenance of standpipes, deep hand tubewells and community toilets provided under the project and reporting issues that they cannot resolve;
- (ix) prepare an Action Plan for sustainability of project initiatives at the end of the fourth year; and demonstrate an exit strategy such that sustainability of WSUGs formed is ensured beyond the project period;
- (x) train staff within *pouroshava* on community mobilization, gender issues through on-the-job training and in-house presentations, ensuring institutional capacity within *pouroshava* to handle such issues in future;
- (xi) assist the PMU in monitoring the Gender Action Plan;
- (xii) participate in meetings as and when required; and
- (xiii) submit progress reports to the PMU and *pouroshava* as per the schedule of deliverables specified in this TOR.

D. STAFFING REQUIREMENTS

The NGO will provide 343 person-months of services. The breakdown is as follows:

S.No.	Position	Person-month
1	Team Leader	32.0
2	Community Development, Outreach and Participation Specialist	27.0
3	Social Safeguards and Gender Specialist	37.0
4	WASH Campaign Coordinator	18.0
5	Facilitators (Community Outreach) - 2 positions (1 per 2 towns)	50.0
6	Specialists on Call (WASH and Climate Change)	3.0
7	Community Organisers - 4 positions (1 per town)	176.0
Total inputs		343.0

E. QUALIFICATIONS, EXPERIENCE AND TERMS OF REFERENCE OF NGO TEAM MEMBERS

No.	Specialist	Required Qualifications and Experience	TOR OF Team Member
1	Team Leader	Masters or equivalent degree in social science / health or environment/ urban planning, with minimum 15 years work experience in the development sector. At least 10 years' experience of working with national and international NGOs in Team Leader/Project Coordinator role on externally funded projects.	The Team Leader will be directly involved in design and development of the methodology and work plan for the program. S/he will implement and monitor project related activities of the NGO and will perform the lead role in program implementation S/he will assist in developing training materials with relevant experts on WASH, climate resilience and adaptation and resettlement. S/he will submit quarterly progress reports and all other reports and deliverables as specified in this TOR. In all of the above tasks, s/he will work closely with the <i>pouroshavas</i> , PIUs and PMU. S/he will ensure gender balance in NGO team and in community participation in the project.
2	Community Development, Outreach and Participation Specialist	Master's degree in social science or similar, relevant subject. At least, 10 years of experience in community development techniques, community mobilization, social development work, especially in the field of infrastructure.	Will be responsible for mobilisation and orientation of the community, its leaders and key stakeholders at different levels. The specialist will visit the project area to mobilize people and provide technical assistance to develop appropriate training material. S/he will keep a close contact with the Community Facilitators in organizing community group formation. S/he will prepare regular campaign/meeting schedules with specific agendas and will also be responsible for regular documentation and review of progress.
3	Social Safeguards and Gender Specialist	Master's degree in social sciences or similar, relevant subject with at least 10 years' research and/or work experience relating to resettlement, social protection, poverty, gender issues; and knowledge of techniques and their applications in gender and development programs	Will assist the PMU/ <i>pouroshavas</i> to identify affected persons and in all aspects of resettlement plan implementation. Will work with the PMU/ <i>pouroshavas</i> to ensure women's participation in different components of the project as envisaged in the gender action plan, train field staff and <i>pouroshava</i> staff on gender mainstreaming issues in the project and in development projects in general, and assist the PMU/ <i>pouroshavas</i> monitor the gender action plan.

4	WASH Campaign Coordinator	Master's degree in public health, environmental science or similar, relevant degree with 10 years' experience in health education, public participation, and community development/mobilisation techniques, especially in the field of WASH. Working on programs for the poor and disadvantaged groups in externally funded projects is also desirable.	The WASH Campaign Coordinator will advise the Team Leader in designing and implementing the WASH campaign. S/he will advise and provide technical assistance to develop appropriate Behavioral Change Communication (BCC) materials and will act as a resource person in the orientation meetings. S/he will manage and monitor local partners and ensure the program meets or exceeds agreed objectives. S/he will ensure quality of the WASH program and will support the <i>pouroshava</i> in analyzing baseline surveys and post-campaign data collection.
5	Facilitators (community outreach) - 2 positions	Graduation degree with 5 years experience working with NGOs	Will facilitate the activities of awareness generation and orientation workshops. They will participate in the community level activities to observe message dissemination by the community organisers, oriented community leaders and other community level key stakeholders. They will act as a resource persons in awareness generation and gender mainstreaming activities at the field level .
6	2 Specialists on Call (WASH, Climate Change etc.)	Master's degree or above in relevant field; >15 years of experience in relevant field.	The Specialists will act as advisors to the NGO in relevant fields in which the NGO has less capacity. Provide inputs for preparation of WASH program implementation manual for the project, prepare monitoring indicators to enable tracking of outputs of the program on quarterly basis, in consultation with <i>pouroshava</i> , PMU and PMSC. Provide inputs for design of climate resilience awareness program, train field staff and facilitate design of training material on climate resilience in consultation with <i>pouroshava</i> , PMU and PMSC.
7	Community Organisers - 4 positions (1 per town)	Bachelor's degree with 3 years' experience in community organization in a reputed NGO.	S/he will mobilise, form, train and handhold water user groups where common facilities are provided, disseminate information on the project, deliver the WASH program, identify and enlist local groups/community leaders in the campaign, distribute hygiene promotion materials among women/youth groups and community leaders to deliver the awareness program effectively, disseminate information on permanent and temporary project impacts, entitlements and benefits and how to avail them, and facilitate receipt of entitlements. S/he will conduct surveys as required to identify vulnerable households requiring special assistance. COs will maintain a daily diary of activities.

F. REPORTS, DELIVERABLES AND TIME SCHEDULE

The tasks defined in the above section will be completed/ provided over the first 4 years of project implementation. At the end of the fourth year, a review shall be undertaken jointly with the project authorities and *pouroshava* and follow-up actions (e.g. need for continued handholding, support for sustainability of initiatives etc.) will be identified in an Action Plan for Sustainability.

The team will submit the following reports:

Deliverable	Month of Delivery ^a	Summary of Contents
Inception Report	#2	Initial findings, detailed approach and methodology, detailed work plan for each of the four envisaged tasks.
Monthly Report	#2, #3,..., #71	Monthly progress, detailed by sub-project location.
Quarterly Report ^b	#3, #6, ..., #66	Quarterly progress.
Annual Report ^b	#12, #24, #36	Annual progress.
Program Implementation Manuals	#3	Manuals with detailed guidelines for implementation of WASH Campaign and Climate Resilience Campaign
Special reports (as requested by PMU)	TBD	Contract management, handover of facilities, confirmation of operations. Shall include report that all safeguards requirements have been complied.
Project Implementation Report and Action Plan for Sustainability ^c	#48	Inputs provided, outputs produced, evaluation of achievements, strengths and weaknesses of the approach, suggested follow-up actions to enhance sustainability of community-level initiatives in an Action Plan, assessment of impacts of the services from the NGO's perspective.
Report on status of Action Plan implementation	#54, #60, #66	Half-yearly report on actions taken to enhance for sustainability of community level initiatives.
Final Report	#71	Status of outputs, outcomes and achievements of NGO intervention.

^a Month of delivery (#1 is the first month of the assignment).

^b In accordance with ADB guidelines on progress reports.

^c Will contain last monthly, quarterly and annual report, and an Action Plan to address sustainability issues.

G. DATA, LOCAL SERVICES, PERSONNEL AND FACILITIES TO BE PROVIDED BY THE EA

The EA will establish a Project Management Unit that will be responsible for day-to-day management and organizing the technical and administrative aspects of the project implementation.

The EA and PIUs will provide the NGO team with suitable office space, office furniture (including a sufficient number of standard desks, chairs, shelves, and closets), lighting, electricity, air conditioning, and access to phone lines. Electricity, communication and other consumables will be at the cost of the NGO.

The EA will assist the NGO in obtaining all relevant data.

The EA will finance allowances and travel cost of their own staff only.