

**PEOPLE'S REPUBLIC OF BANGLADESH
DEPARTMENT OF DISASTER MANAGEMENT (DDM)
MINISTRY OF DISASTER MANAGEMENT AND RELIEF (MoDMR)**

**THE PREPARATORY SURVEY ON
THE CAPACITY ENHANCEMENT ON
DISASTER RISK REDUCTION,
EMERGENCY RESPONSE AND RECOVERY
PROJECT
IN THE PEOPLE'S REPUBLIC OF
BANGLADESH**

FINAL REPORT

VOLUME III-2

**MANUAL OF
OPERATION OF DISASTER RECOVERY FUND**

JUNE 2016

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

**CTI ENGINEERING INTERNATIONAL CO., LTD.
INGEROSEC CORPORATION
ORIENTAL CONSULTANTS GLOBAL CO., LTD.**

4R
JR(先)
16-021

**PEOPLE'S REPUBLIC OF BANGLADESH
DEPARTMENT OF DISASTER MANAGEMENT (DDM)
MINISTRY OF DISASTER MANAGEMENT AND RELIEF (MoDMR)**

**THE PREPARATORY SURVEY ON
THE CAPACITY ENHANCEMENT ON
DISASTER RISK REDUCTION,
EMERGENCY RESPONSE AND RECOVERY
PROJECT
IN THE PEOPLE'S REPUBLIC OF
BANGLADESH**

FINAL REPORT

VOLUME III-2

**MANUAL OF
OPERATION OF DISASTER RECOVERY FUND**

JUNE 2016

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

**CTI ENGINEERING INTERNATIONAL CO., LTD.
INGEROSEC CORPORATION
ORIENTAL CONSULTANTS GLOBAL CO., LTD.**

**THE PREPARATORY SURVEY ON
THE CAPACITY ENHANCEMENT ON
DISASTER RISK REDUCTION,
EMERGENCY RESPONSE AND RECOVERY PROJECT**

FINAL REPORT

List of Reports

Volume I : Main Report

Volume II : Appendices

Volume III-1 : Guideline of Operation of Disaster Recovery Fund

Volume III-2 : Manual of Operation of Disaster Recovery Fund

Exchange Rate

1 US\$ = 77.8 BDT = 120.2 JPY

1 BDT = 1.55 JPY

November 2015

Component 3
Operation of Disaster Recovery Fund
in
the People's Republic of Bangladesh

Manual

June 2016

Ministry of Disaster Management and Relief

Japan International Cooperation Agency

Contents

1. Objective of the Manual.....	1
2. Overall Implementation Flow of the Sub-projects	2
3. Forms to Prepare among PIUs, PCMU and PSC	5
4. Timing of Forms and Documents to Prepare in the Implementation of Sub-project.....	8
5. Design Standards, Cost Estimation and Tender Documents	19
5.1 Design Standards.....	19
5.2 Cost Estimation	19
5.3 Request for Proposal and Tender Documents	20
6. How to Take Digital Photographs of Affected Infrastructures for Applying for the Disaster Recovery Fund	20
6.1 Roles of Taking Digital Photographs	20
6.2 How to Take Digital Photographs	20
7. Environmental Management Plan (EMP) to Obtain the Environmental Clearance Certificate (ECC) of Sub-project	23
8. Public Procurement Rules 2008 and the Amendments	26
9. Attachment.....	30

Acronyms and Abbreviations

Abbreviations	Official Name
APD	Assistant Project Director
BBS	Bureau of Statistics
BWDB	Bangladesh Water Development Board
DC	Deputy Commissioner
DDM	Department of Disaster Management
DDMC	District Disaster Management Committee
DoE	Department of Environment
DoF	Department of Forest
DPA	Direct Project Aid
DPD	Deputy Project Director
DPP	Development Project Proposal
DRR	Disaster Risk Reduction
DRM	Disaster Risk Management
DRRO	District Relief and Rehabilitation Officer
ECAs	Ecologically Critical Areas
ECA	Environment Conservation Act
ECC	Environmental Clearance Certificate
ECR	Environmental Conservation Rules
EIA	Environmental Impact Assessment
EMP	Environmental Monitoring Plan
ERD	Economic Relations Division
FFWC	Flood Forecasting & Warning Center
FSCD	Bangladesh Fire Service and Civil Defense
GO	Government Officer
GOB	Government of Bangladesh
IEE	Initial Environmental Examination
IMED	Implementation Monitoring and Evaluation Division
JICA	Japan International Cooperation Agency
JPY	Japanese Yen
LGD	Local Government Division
LGED	Local Government Engineering Department
MoDMR	Ministry of Disaster Management and Relief
MoEF	Ministry of Environment and Forest
MoHA	Ministry of Home Affairs
MoWR	Ministry of Water Resources
PC	Planning Commission
PCMU	Project Coordinating and Monitoring Unit
PD	Project Director
PIO	Project Implementation Officer
PIU	Project Implementation Unit
PSC	Project Steering Committee
SFYP	Sixth (Seventh) Five Year Plan
SOD	Standing Orders on Disaster
TOR	Terms of Reference
UDMC	Union Disaster Management Committee
UNO	Upazila Nirbahi Officer
UP	Union Parishad
UPC	Union Parishad Chairman
USGS	United States Geological Survey
UzDMC	Upazila Disaster Management Committee
XEN	Executive Engineer

1. Objective of the Manual

This Manual is edited to supplement the Guideline for the operation of the Disaster Recovery Fund.

The Disaster Recovery Fund is a challenging model scheme which is granted to the Sub-projects targeting the quick and effective recovery work of the infrastructures affected by the natural disasters.

The most advantageous point of the Quick Recovery Fund is that the Project Implementation Units are able to apply for the funds for the recovery work without preparing every single Development Project Proposal (DPP) which might require over years.

The target infrastructures are respectively under jurisdiction of three governmental organizations namely Bangladesh water development Board (BWDB), Department of Disaster Management (DDM), and Local Government and Engineering Department (LGED).

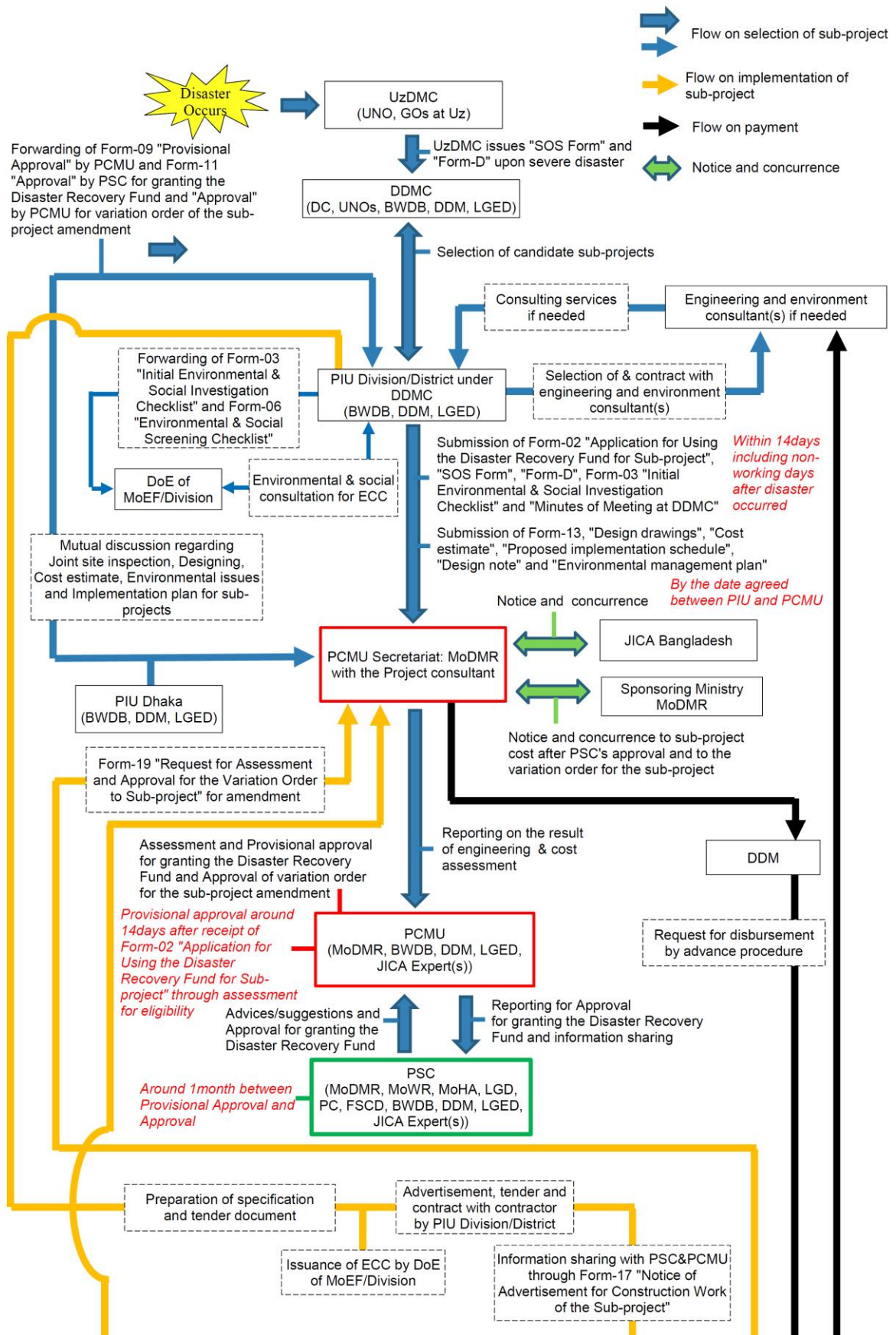
Therefore systematic and waste-less clerical transaction among Project Implementation Unit (PIU), Project Coordinating and Monitoring Unit (PCMU) and Project Steering Committee (PSC) is a key issue for success of the Disaster Recovery Fund. In this sense, this Manual provides the standard clerical forms to prepare at the timing of procedures stipulated in the Guideline.

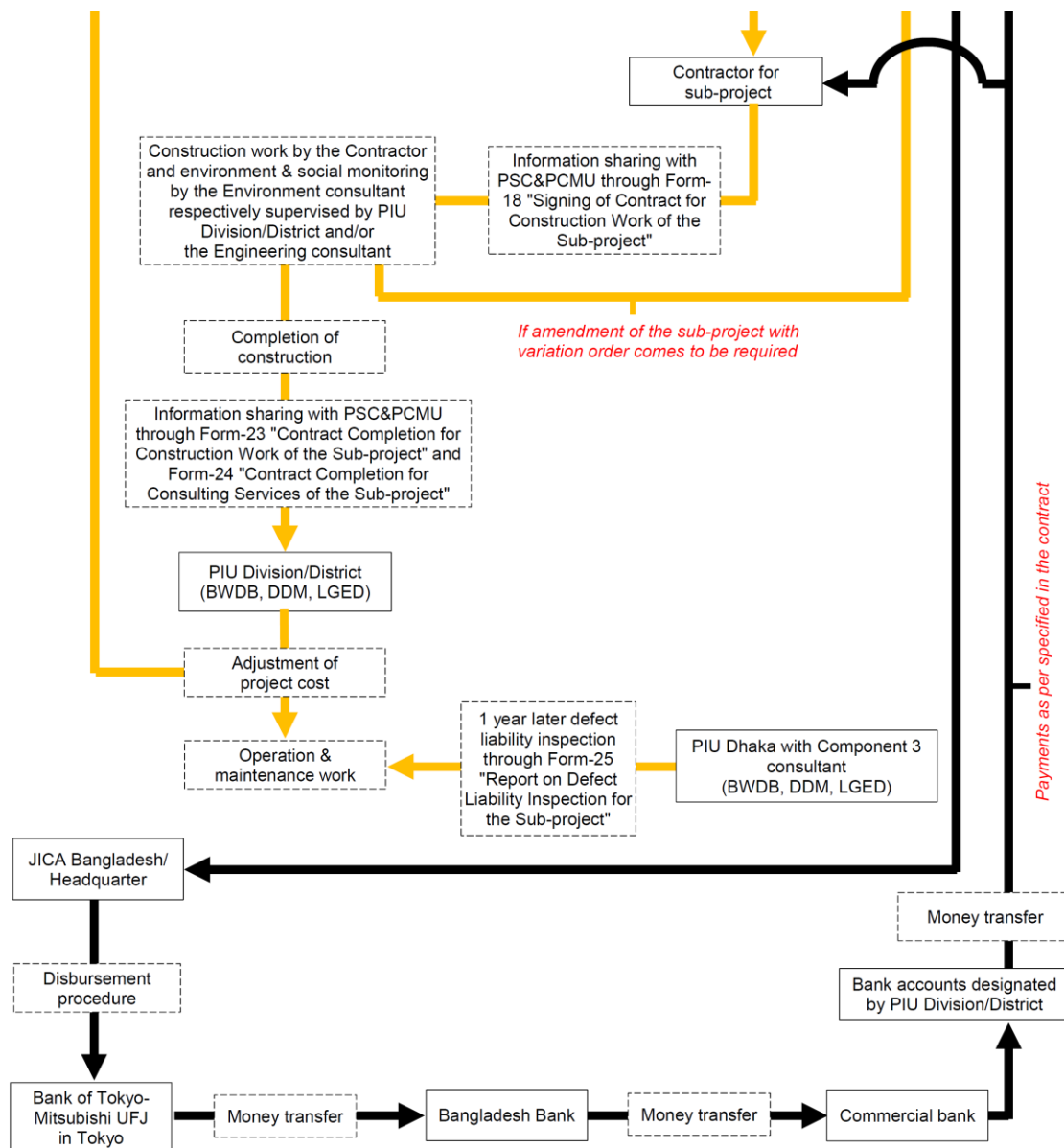
A kind of Disaster Recovery Fund is systematically and widely granted from the central government budget to the local government implementing infrastructure recovery works in Japan which is subject to the natural disasters like in Bangladesh. Such a Disaster Recovery Fund is making a great contribution to quick recovery of infrastructures affected by the natural disasters.

This Disaster Recovery Fund is expected to accumulate work experience by trial and error through the implementation of Sub-project, and to establish practical system living up to demand from the beneficiaries. Throughout such a process, the Disaster Recovery Fund is expected to be mainstreamed by the involved government organizations as one of post disaster response.

2. Overall Implementation Flow of the Sub-projects

This Manual supplements the Outline Flow of Disaster Recovery Fund Application in the Guideline. The overall implementation flow of the Sub-projects is described as follows.





Abbreviation

MoDMR	Ministry of Disaster Management and Relief
MoWR	Ministry of Water Resources
MoHA	Ministry of Home Affairs
MoEF	Ministry of Environment and Forest
PC	Planning Commission
LGD	Local Government Division
FSCD	Bangladesh Fire Service and Civil Defense
BWDB	Bangladesh Water Development Board
DDM	Department of Disaster Management
LGED	Local Government Engineering Department
DoE	Department of Environment
DC	Deputy Commissioner
UNO	Upazila Nirbahi Officer
UPC	Union Parishad Chairman
GO	Government Officer
UP	Union Parishad
JICA	Japan International Cooperation Agency
DDMC	District Disaster Management Committee
UzDMC	Upazila Disaster Management Committee
UDMC	Union Disaster Management Committee
PSC	Project Steering Committee
PCMU	Project Coordinating and Monitoring Unit
PIU	Project Implementation Unit
ECC	Environmental Clearance Certificate

to be newly organized by the Project
to be newly organized by the Project
to be newly organized by the Project

3. Forms to Prepare among PIUs, PCMU and PSC

As per stipulation of the Guideline for Operation of Disaster Recovery Fund, the necessary clerical transaction among PIUs, PCMU and PSC shall be made in use of the Forms, which are attached in “7 Attachment”, summarized in the following table.

Table 01 Forms to Prepare among PIUs, PCMU and PSC

Form No.	Titles of Form	Prepared by	Submitted to	Number to submit	Remarks
	SOS Form	Upazila Disaster Management Committee (UzDMC)	PSC c/o PCMU Secretariat	One A4 size copy	Existing emergent action, UzDMC through Deputy
	Form-D	UzDMC	PSC c/o PCMU Secretariat	One A4 size copy	Commissioner to District Administration and Emergency Operation Center of Department of Disaster Management (DDM)
Form-01	Recognition of Severer Natural Disaster	PSC	PCMU c/o Secretariat	One A4 size original	
Form-02	Application for Using the Disaster Recovery Fund for Sub-project	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PSC c/o PCMU Secretariat	One A4 size original	Candidate sub-projects shall be selected in DDMC.
Form-03	Initial Environmental and Social Investigation Checklist	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PSC c/o PCMU Secretariat	One A4 size copy	The original shall be submitted to Department of Environment (DoE) of Division.
Form-04	Confirmation of Disaster Occurrence	PSC c/o PCMU Secretariat	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED, DDMC	One A4 size original	
Form-05	Joint Site Inspection regarding the Candidate Sub-project	PCMU c/o Secretariat	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	One A4 size original	
Form-06	Environmental and Social Screening Checklist	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PSC c/o PCMU Secretariat	One A4 size copy	The original shall be submitted to Department of Environment (DoE) of Division/MoEF.

Form No.	Titles of Form	Prepared by	Submitted to	Number to submit	Remarks
Form-07	Comments on the Result of Joint Site Inspection	PCMU c/o Secretariat	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	One A4 size original	
Form-08	Request for Approval for Using the Disaster Recovery Fund	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PSC c/o PCMU Secretariat	One A4 size original	
Form-09	Provisional Approval for Granting the Disaster Recovery Fund	PCMU c/o Secretariat	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	One A4 size original	
Form-10	Receipt of Provisional Approval for Granting the Disaster Recovery Fund	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PCMU c/o Secretariat	One A4 size original	
Form-11	Approval for Granting the Disaster Recovery Fund	PSC c/o PCMU Secretariat	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	One A4 size original	
Form-12	Receipt of Approval for Granting the Disaster Recovery Fund	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PSC c/o PCMU Secretariat	One A4 size original	
Form-13	Submission of Design Documents of the Sub-project	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PCMU c/o Secretariat	One A4 size original	
Form-14	Cost Estimate of Sub-project	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PCMU c/o Secretariat	Two A4 size copies	
Form-15	Overall Sub-Project Implementation Schedule	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PCMU c/o Secretariat	Two A4 size copies	
Form-16	Determination of Amount Granted to the Sub-project	PSC c/o PCMU Secretariat	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	One A4 size original	

Form No.	Titles of Form	Prepared by	Submitted to	Number to submit	Remarks
Form-17	Notice of Advertisement for Construction Work of the Sub-project	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PSC c/o PCMU Secretariat	One A4 size original	
Form-18	Signing of Contract for Construction Work of the Sub-project	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PSC c/o PCMU Secretariat	One A4 size original	
Form-19	Request for Assessment and Approval for the Variation Order to Sub-project	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PCMU c/o Secretariat	One A4 size original	
Form-20	Comments on Request for the Variation Order to Sub-project	PCMU c/o Secretariat	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	One A4 size original	
Form-21	Contract Amendment for Construction Work of the Sub-project	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PCMU c/o Secretariat	One A4 size original	
Form-22	Contract Amendment for Consulting Services of the Sub-project	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PCMU c/o Secretariat	One A4 size original	
Form-23	Contract Completion for Construction Work of the Sub-project	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PSC c/o PCMU Secretariat	One A4 size original	
Form-24	Contract Completion for Consulting Services of the Sub-project	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PSC c/o PCMU Secretariat	One A4 size original	
Form-25	Report on Defect Liability Inspection for the Sub-project	PIU O&M Division Office BWDB, PIU District Office DDM, PIU District Office LGED	PSC c/o PCMU Secretariat	One A4 size copy	

Note: "PSC c/o PCMU Secretariat" in the Table above means commonly that the clerical work from & to PSC is done by PCMU Secretariat under the direction of PCMU.

4. Timing of Forms and Documents to Prepare in the Implementation of Sub-project

As per stipulated in the Guideline, the clerical transaction and the forms & documents to prepare among PIUs, PCMU and PSC are explained in the following time flow.



Type of Disaster	Hazards
Meteorological disaster	Flood
	River Bank Erosion
	Cyclones and Storm Surges
	Tornado
	Landslide
Seismic disaster	Earthquake
	Tsunami
	Landslide including slope failure

Guideline 5 ‘Infrastructure Facilities Targeted by the Disaster Recovery Fund’

Infrastructures managed by BWDB, DDM or LGED were affected by the disaster.

Target Infrastructures managed by BWDB, DDM or LGED
Flood Countermeasure Facilities (Dikes, Polders, Bank Revetments, Sluice Gates, Rubber Dams etc.)
Rural Roads
Rural Bridges
Bridges/Culverts
Cyclone / Flood Shelters



Guideline 6.2 “Scale of Disasters”

Form-01 “Recognition of Severe Natural Disaster”

Necessary information from agencies concerned shall be collected by PCMU and submitted to PSC. PSC issues Form-01 by confirming the latest official information to fulfill “Extent of Damage” and one or more out of “Intensity of Hazard”, and submits to PCMU c/o Secretariat.

References of Severe Natural Disaster for the Disaster Recovery Fund			Check
Intensity of Hazard	Precipitation	More than 50 mm/day	Yes
	Water level	Above “Danger Level”	Yes
	Wind speed	More than 70 km/h 3 minute average sustained wind speed	Yes
	Earthquake intensity	More than “IV” of the Modified Mercalli Intensity Scale	Yes
Extent of Damage	Number of Affected Families (Upazila)	More than 1,000 families	Yes

Notes: Ministry of Disaster Management and Relief (MoDMR) will bring up the matter to the Project Steering Committee (PSC).

Precipitation, Wind speed: Records at an officially recognized gauging post (reference: BMD and BWDB rainfall observatories)

Danger Level: Values at water level gauging posts set by the BWDB (reference: FFWC homepage)

Earthquake Intensity: Data published by a reliable agency (reference: published data of the USGS, etc.)

Extent of Damage: Records in SOS Form and Form-D



Guideline 3 “Roles of Related Agencies and Government Ministries and Departments”

Upazila Disaster Management Committee (UzDMC) is convened.



Guideline 3 “Roles of Related Agencies and Government Ministries and Departments”

District Disaster Management Committee (DDMC) is convened and Candidate Sub-projects by using the Disaster Recovery Fund are discussed and selected.

All UNOs, Executive Engineer of LGED, Executive Engineer of BWDB, Heads of all concerned departments at district level and other members meet chaired by Deputy Commissioner (DC) with DRRO of DDM as secretary.



**Guideline 8.4 “Application for Use of the Disaster Recovery Fund”
Guideline 9.2 “Environment and Social Compliances - Component 3”**

***Form-02 “Application for Using the Disaster Recovery Fund for Sub-project”,
Form-03 “Initial Environmental and Social Investigation Checklist”,
“Minutes of meeting at DDMC”, “SOS Form” and “Form D”***

PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED prepare Form-02, Form-03, copies of “Minutes of meeting at DDMC”, “SOS Form” and “Form D” for applying for using the Disaster Recovery Fund for the recovery work of affected infrastructures, and submit to PSC c/o PCMU Secretariat.



WITHIN 14 DAYS INCLUDING NON-WORKING DAYS after disaster occurrence, Form-02 “Application for Using the Disaster Recovery Fund for Sub-project” etc. shall be submitted to PSC c/o PUMU Secretariat.

Guideline 8.4 “Application for Use of the Disaster Recovery Fund”

Form-04 “Confirmation of Disaster Occurrence”

PSC issues Form-04 for informing of confirming the fact that the infrastructure described in the Candidate Sub-project was affected by the disaster upon confirming Form-02, Form-03, SOS Form, Form-D and Minutes of meeting at DDMC, and submits to PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED and DDMC.



WITHIN 2 WORKING DAYS after PSC c/o PUMU Secretariat receives Form-02 “Application for Using the Disaster Recovery Fund for Sub-project”, Form-05 “Joint Site Inspection regarding the Candidate Sub-project” shall be informed.

Guideline 8.5 “Disaster Assessment and Approval for Use of the Disaster Recovery Fund”

Form-05 “Joint Site Inspection regarding the Candidate Sub-project”

PCMU issues Form-05 for informing of the implementation of Joint Site Inspection regarding the Candidate Sub-project, and submits to PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED and DDMC.



WITHIN 7 WORKING DAYS after PSC c/o PUMU Secretariat receives Form-02 “Application for Using the Disaster Recovery Fund for Sub-project”, Joint Site Inspection shall be conducted.

Guideline 8.5 “Disaster Assessment and Approval for Use of the Disaster Recovery Fund”

Guideline 9.2 “Environment and Social Compliances - Component 3”

Joint Site Inspection is conducted.

Form-06 “Environmental and Social Screening Checklist”

Three assessors from BWDB / DDM / LGED and PCMU Secretariat are dispatched to the site of Candidate Sub-project for assessing the eligibility for granting the Disaster Recovery Fund. PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED are requested to fill out Form-06 before conducting the Joint Site Inspection and make the necessary preparation.



The candidate sub-projects shall be scored for the implementation prioritization with the following criteria. The Parameters below are subject to modification in the operational stage of the Disaster Recovery Fund.

Criteria		Score	What happened in Disaster	
			Evaluation	Parameters
Extent of Damage	Number of affected people	10	Exceptionally Large number of people were affected	More than 100,000 people in a target Upazila were affected.
		8	Very Large number of people were affected.	More than 50,000 people in a target Upazila were affected.
		6	Large number of people were affected	More than 25,000 people in a target Upazila were affected.
		4	Medium Number of people were affected.	More than 10,000 people in a target Upazila were affected.
		2	Low Number of people were affected.	Less than 10,000 people in a Upazila were affected.

Criteria		Score	What happened in Disaster	
			Evaluation	Parameters
	Amount of economic loss	5	Exceptionally Huge economic loss was experienced.	Most of agricultural products in a union were affected.
		4	Very Huge number of economic loss was experienced.	The central market in target Upazila was totally flushed out.
		3	Large number of economic loss was experienced.	The biggest industry factory in target Upazila stopped operation for more than 1 month.
		2	Medium Number of economic loss was experienced.	More than 30% of agricultural lands in a union were inundated.
		1	Low Number of economic loss was experienced.	Some farmer's lands were washed out.

Criteria		Score	What will happen without immediate recovery work	
			Evaluation	Parameters
Extent of Assumed Damage in the Future	Expected damage of socioeconomic infrastructure	5	The most important socioeconomic infrastructure in the division will be damaged in case recovery work cannot be implemented.	Further damage of the embankment will affect the operation of airport/port.
		4	Small-scaled disaster will affect socioeconomic infrastructure.	The important bridge in region will collapse.
		3	Medium-scaled disaster will affect socioeconomic infrastructure.	The important community road will become impassable during heavy rain.
		2	Large-scaled disaster will affect socioeconomic infrastructure.	Damaged bridge will completely collapse by large-scaled disaster. Damaged revetment affect stability of the important bridge.
		1	Damaged portions are still durable compared to other ordinary portion.	Damaged bridge and road will still function. Damaged portions of river bank repaired by Temporary works will function.

Criteria	Score	Current Condition	
		Evaluation	Parameters
Damaged Degree of the Infrastructure	5	Completely Disappearance / Loss	Almost completely disappearance of a series of embankment (more than 100meter wide) or totally collapse of a bridge, ...

Criteria	Score	Current Condition	
		Evaluation	Parameters
	4	Severely damaged	Some portions of embankment with revetments were flushed out (less than 100 meter wide) A bridge abutment tilts to the side. A bridge girder gets broken.
	3	Moderately damaged	Several sections of revetments of embankment were flushed out. Footing of a pier of bridge is eroded.
	2	Partially damaged	Some portions of embankment were eroded. Handrails of Bridges are damaged.
	1	Less/Minor Damaged	Minor repair works were needed.

Criteria		Score	Consideration of Vulnerability to Disasters	
			Evaluation	Parameters
Vulnerabilities of Target Upazila	Upper Poverty Line (BBS 2010 or later)	5	Target Upazila with very high poverty line	More than or equal to 55.0 %
		4	Target Upazila with high poverty line	40.0% ~ 54.9%
		3	Target Upazila with medium poverty line	28.0% ~ 39.9%
		2	Target Upazila with low poverty line	14.0% ~ 27.9%
		1	Target Upazila with very low poverty line	Lower than or equal to 13.9%



WITHIN 2 WORKING DAYS after Joint Site Inspection is completed, Form-07 "Comments on the Result of Joint Site Inspection" shall be informed.

Guideline 8.5 "Disaster Assessment and Approval for Use of the Disaster Recovery Fund"

Form-07 "Comments on the Result of Joint Site Inspection"

PCMU issues Form-07 scoring the sub-project prioritization and assessing the eligibility for granting the Disaster Recovery Fund, and submits to PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED.



***WITHIN 2 WORKING DAYS after Form-07
“Comments on the Result of Joint Site
Inspection” is received, Form 8 “Request for
Approval for Using the Disaster Recovery
Fund” shall be sent.***

Guideline 8.5 “Disaster Assessment and Approval for Use of the Disaster Recovery Fund”

Form-08 “Request for Approval for Using the Disaster Recovery Fund”

PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED agree with Form-07 and prepare Form-08 requesting the Approval for using the Disaster Recovery Fund for the Candidate Sub-project, and submit to PSC c/o PCMU Secretariat.



***WITHIN 2 WORKING DAYS after Form-08
“Request for Approval for Using the
Disaster Recovery Fund” is received, Form-
09 “Provisional Approval for Granting the
Disaster Recovery Fund” shall be issued.***

Guideline 8.5.1 “Provisional Approval”

Form-09 “Provisional Approval for Granting the Disaster Recovery Fund”

PCMU issues Form-09 as the Provisional Approval for the Disaster Recovery Fund granted to the Candidate Sub-project, and submits to PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED.

Due design work and environmental management planning are requested to proceed.



Guideline 8.5.1 “Provisional Approval”

Form-10 “Receipt of Provisional Approval for Granting the Disaster Recovery Fund”

PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED prepare Form-10 upon receipt of the Provisional Approval for the Disaster Recovery Fund granted to the Candidate Sub-project, and submit to PCMU c/o Secretariat.



***WITHIN 1 month INCLUDING NON-
WORKING DAYS after Provisional
Approval is issued, Approval shall
be issued.***

Guideline 8.5.2 “Approval”

Form-11 “Approval for Granting the Disaster Recovery Fund”

PSC issues Form-11 as the Approval for the Disaster Recovery Fund granted to the Candidate Sub-project, and submits to PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED.



Guideline 8.5.2 “Approval”

Form-12 “Receipt of Approval for Granting the Disaster Recovery Fund”

PIU Field Office of BWDB / PIU of DDM / PIU District Office of LGED prepare Form-12 upon receipt of the Approval for the Disaster Recovery Fund granted to the Candidate Sub-project, and submit to PSC c/o PCMU Secretariat.



WITHIN THE DATE agreed between PIU and PCM be issued.

Guideline 8.5.1 “Provisional Approval”

Guideline 9.2 “Environment and Social Compliances - Component 3”

Form-13 “Submission of Design Documents of the Sub-project”

Form-14 “Cost Estimate of Sub-project”

Form-15 “Overall Sub-Project Implementation Schedule”

“Design drawings”, “Design note” and “Environmental management plan”

PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED prepare Form-13, Form-14, Form-15, Design drawings, Design note and Environmental management plan for PCMU’s confirming the contents of design and determining the cost of Sub-project allocated from the Disaster Recovery Fund., and submit to PCMU c/o Secretariat.



WITHIN 14 DAYS INCLUDING NON-WORKING DAYS after Form-14 “Cost Estimate of Sub-project” etc. are received, Form-16 “Determination of Amount Granted to the Sub-project” shall be issued.

Guideline 8.5.2 “Approval”

Form-16 “Determination of Amount Granted to the Sub-project”

PSC issues Form-16 for informing that the amount of the Disaster Recovery Fund granted to the Sub-project has been determined upon confirming the design documents of the Sub-project, and submits to PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED.



Guideline 8.5.2 “Approval”

Form-17 “Notice of Advertisement for Construction Work of the Sub-project”

PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED prepare Form-17 for informing of the Notice of Advertisement for Construction Work of the Sub-project, and submit to PSC c/o PCMU Secretariat.



Guideline 8.7 “Implementation and Monitoring of Sub-projects that Use the Fund”

Form-18 “Signing of Contract for Construction Work of the Sub-project”

PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED prepare Form-18 for informing of the Signing of Contract for Construction Work of the Sub-project, and submit to PSC c/o PCMU Secretariat.



Guideline 8.7 “Implementation and Monitoring of Sub-projects that Use the Fund”

Form-19 “Request for Assessment and Approval for the Variation Order to Sub-project”

PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED prepare Form-19 for requesting assessment and approval if amendment of the sub-project with variation order comes to be required, and submit to PCMU c/o Secretariat.



WITHIN 7WORKING DAYS after Form-19 “Request for Assessment and Approval for the Variation Order to Sub-project” is received, Form-20 “Comments on Request for the Variation Order to Sub-project” shall be informed.

Guideline 8.7 “Implementation and Monitoring of Sub-projects that Use the Fund”

Form-20 “Comments on Request for the Variation Order to Sub-project”

PCMU issues Form-20 commenting on the Request for the Variation Order to Sub-project, and submits to PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED.



Guideline 8.7 “Implementation and Monitoring of Sub-projects that Use the Fund”

Form-21 “Contract Amendment for Construction Work of the Sub-project”

PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED prepare Form-21 for informing of the Contract Amendment for Construction Work of the Sub-project, and submit to PCMU c/o Secretariat.



Guideline 8.7 “Implementation and Monitoring of Sub-projects that Use the Fund”

Form-22 “Contract Amendment for Consulting Services of the Sub-project”

PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED prepare Form-22 for informing of the Contract Amendment for Consulting Services of the Sub-project, and submit to PCMU c/o Secretariat.



Guideline 8.7 “Implementation and Monitoring of Sub-projects that Use the Fund”

Form-23 “Contract Completion for Construction Work of the Sub-project”

PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED prepare Form-23 for informing of the Contract Completion for Construction Work of the Sub-project, and submit to PSC c/o PCMU Secretariat.



Guideline 8.7 “Implementation and Monitoring of Sub-projects that Use the Fund”

Form-24 “Contract Completion for Consulting Services of the Sub-project”

PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED prepare Form-24 for informing of the Contract Completion for Consulting Services of the Sub-project, and submit to PSC c/o PCMU Secretariat.



Guideline 8.7 “Implementation and Monitoring of Sub-projects that Use the Fund”

Form-25 “Report on Defect Liability Inspection for the Sub-project”

PIU O&M Division Office of BWDB / PIU District Office of DDM / PIU District Office of LGED prepare Form-25 for informing of the Defect Liability Inspection for the Sub-project and submit to PSC c/o PCMU Secretariat.

5. Design Standards, Cost Estimation and Tender Documents

5.1 Design Standards

Following codes, standards, guideline, manuals and the others commonly used in Bangladesh are used for conducting the detailed design works for the Sub-projects.

- ✓ International Organization for Standardization (ISO)
- ✓ Bangladesh Standards and Testing Institution (BSTI)
- ✓ International Electrotechnical Commission (IEC)
- ✓ American National Standards Institute (ANSI)
- ✓ ASTM International (former American Society for Testing and Materials)
- ✓ American Association of State Highway and Transportation Officials (AASHTO)
- ✓ American Concrete Institute (ACI)
- ✓ Road Design Standards: May 2004: Roads and Highways Department
- ✓ Geometric Design Standards: Oct 2000: Roads and Highways Department
- ✓ Bridge Design Standards: Jan 2004: Roads and Highways Department
- ✓ Standard Test Procedures: May 2001: Roads and Highways Department
- ✓ Construction Practices and Procedures Manual: May 2001: Roads and Highways Department
- ✓ Road Sign Manual: Bangladesh Road Transport Authority
- ✓ Guideline for River Bank Protection: Bangladesh University of Engineering and Technology
- ✓ Bangladesh National Building Code 2006: Housing and Building Research Institute
- ✓ Cyclone Shelter Construction, Maintenance and Management Policy 2011: Ministry of Disaster Management and Relief
- ✓ LRFD Bridge Design Specifications SI Unites 2007: AASHTO
- ✓ Highway Hydrology, U.S. Department of Transportation
- ✓ Design and Construction of Levees: Department of the Army
- ✓ Design of Coastal Revetments, Seawalls, and Bulkheads: U.S. Army Corps of Engineers
- ✓ Engineering and Design: U.S. Army Corps of Engineers
- ✓ Jack C. McCormac: Design of Reinforced Concrete: ACI 318-05 Code: Wiley 2005
- ✓ Overseas Road Note: Transport Research Laboratory, United Kingdom

5.2 Cost Estimation

The cost estimation of the Sub-projects is carried out in conformity with following schedules of rates issued by the Government of Bangladesh.

- ✓ Schedule of Rate: latest edition: Local Government Engineering Department
- ✓ Standard Schedule of Rates Manual: latest edition: Bangladesh Water Development Board
- ✓ Schedule of Rates for Road and Bridge Works: latest edition: Roads and Highways Department
- ✓ Schedule of Rates for Civil Works: latest edition: Public Works Department
- ✓ Analysis of Schedule of Rates for Civil Works: latest edition: Public Works Department
- ✓ Schedule of Rates for Electrical/Mechanical Works: latest edition: Public Works Department

5.3 Request for Proposal and Tender Documents

The procurement of consulting firms and contractors for the Sub-projects is made in conformity with the latest amendment of the Public Procurement Rules enforced by the Ministry of Planning. The following documents and/or the latest amendment issued by the Government of Bangladesh shall be used for the process of procurement.

- ✓ Standard Request for Proposal for Selection of Consulting Firm (National) (Simple Lump Sum – up to BDT 10 million): Central Procurement Technical Unit, Implementation Monitoring and Evaluation Division, Ministry of Planning
- ✓ Standard Request for Proposal (National) for Selection of Consulting Firm (Complex Lump Sum – for value above BDT 1 Crore): Central Procurement Technical Unit, Implementation Monitoring and Evaluation Division, Ministry of Planning
- ✓ Standard Tender Document (National) for Procurement of Works [Open Tendering Method] (for any value above BDT 2 crore without Prequalification): Central Procurement Technical Unit, Implementation Monitoring and Evaluation Division, Ministry of Planning
- ✓ Standard Tender Document for National Procurement of Works (above BDT 350 million with Prequalification): Central Procurement Technical Unit, Implementation Monitoring and Evaluation Division, Ministry of Planning
- ✓ Standard Tender Documents: General Specifications: Roads and Highways Department

6. How to Take Digital Photographs of Affected Infrastructures for Applying for the Disaster Recovery Fund

6.1 Roles of Taking Digital Photographs

Digital photographs of the affected infrastructures, for having the loss and damage visually confirmed, shall be attached to the Form-02 “Application for Using the Disaster Recovery Fund for Sub-project”. The Form-02 shall be submitted to PCMU Secretariat within 14 days after the occurrence of natural disaster. These digital photographs are crucially important so that PSC and PCMU can judge the priority for implementation of the recovery & rehabilitation work from a non-small number of sub-projects applied for throughout DDMCs. Moreover, these digital photographs will be an evidence for requesting a variation order out of the original scope of work in case that more loss and damage of the affected infrastructures took place by further disaster.

6.2 How to Take Digital Photographs

The digital photographs are required to be taken as soon as the safe access to the affected infrastructures becomes assured.

Preparatory work before taking the digital photographs is as follow,

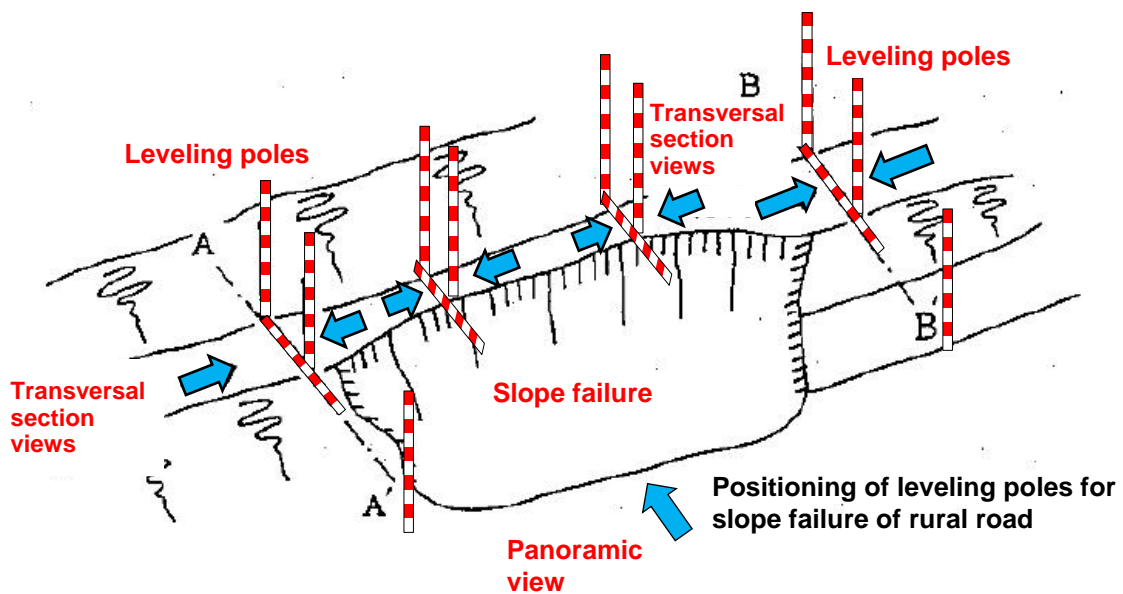
- ✓ Vegetation just around the affected infrastructure is to be cleared cut in order to make the damage and loss shown clearly.

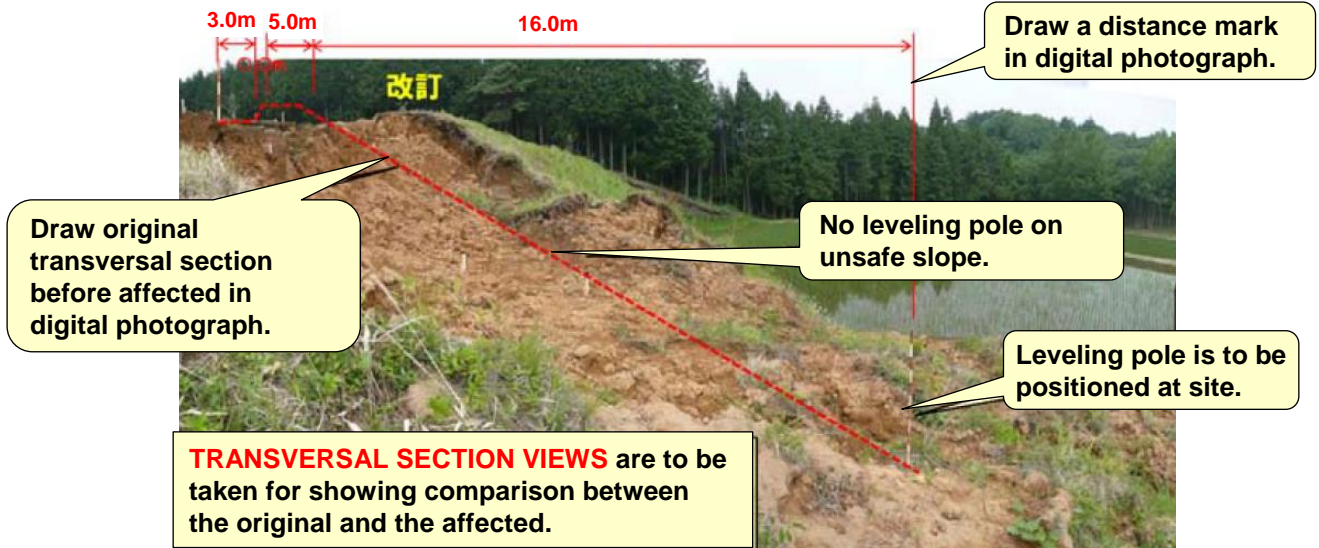
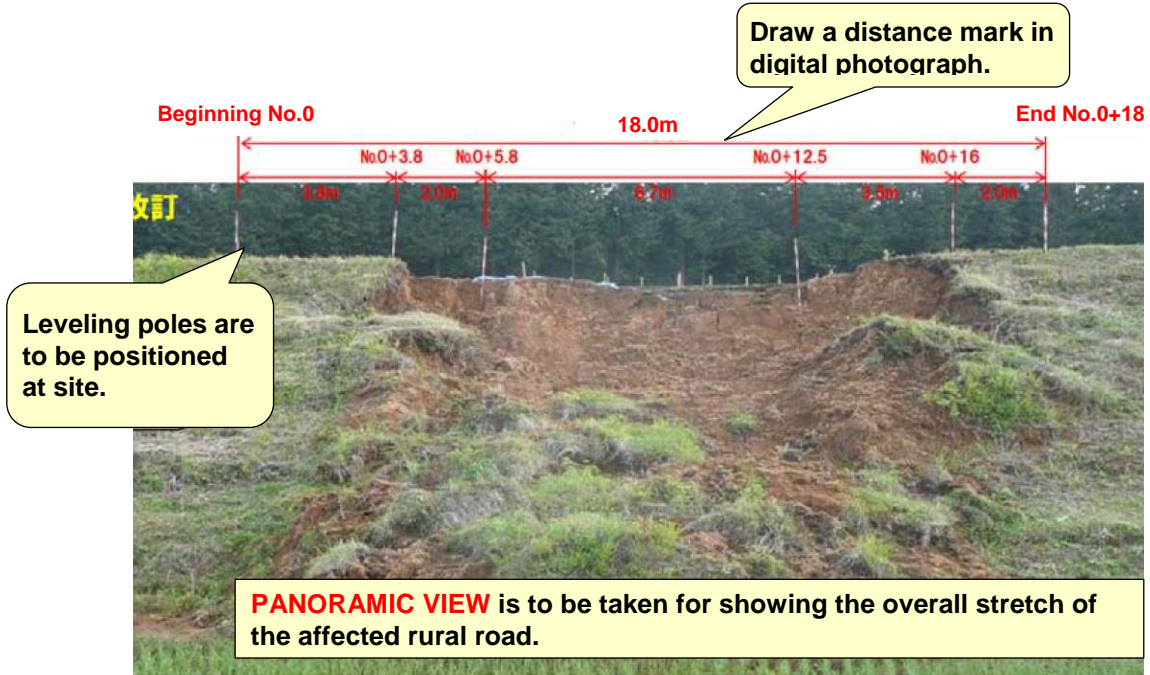
- ✓ Flood marks remained over the infrastructures and/or adjacent buildings are to be shown so that the positioning between the flood marks and the datum lines, such as the ground and the road surface, can be understood by measuring with leveling poles and/or leveling staffs.
- ✓ Leveling poles are to be positioned at beginning, end and intermediates of the affected stretch of infrastructure in order to clarify the magnitude to be recovered.

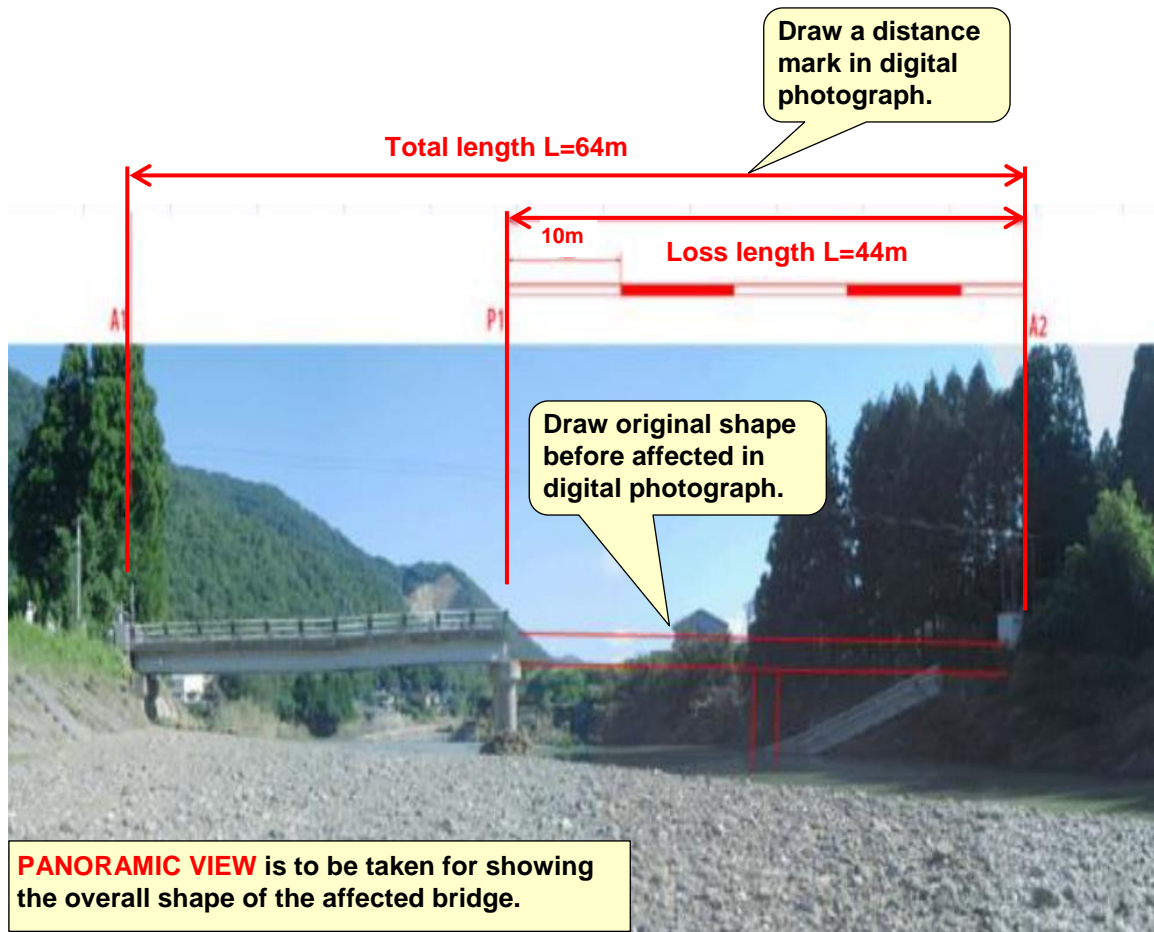
The views to have in the digital photographs are as follows,

- ✓ Panoramic view
- ✓ Transversal section views at beginning, end, and intermediates of the affected stretch
- ✓ Detailed views of affected part
- ✓ Views showing the cause of damage and loss such as flood marks
- ✓ Views before affected by the disaster if available

Example digital photographs of the slope failure of rural road and the loss of bridge are show as below.







7. Environmental Management Plan (EMP) to Obtain the Environmental Clearance Certificate (ECC) of Sub-project

Environmental Management Plan (EMP) is an important tool which should be carried out as early as the Sub-project Design stage thus it can assure that the Sub-project will not be environmentally impacted.

The contents of an EMP report are stated below;

- 1) Introduction
- 2) Description of the Sub-project
- 3) Environmental Baseline Condition
- 4) Identified Environmental Impact Evaluation and Mitigation Measure
- 5) Environmental Management Plan
- 6) Stakeholder Consultation
- 7) Without Sub-project
- 8) Conclusion and Recommendation

The detail of the contents is stated below.

1) Introduction

This section usually includes the following:

- Purpose of the report, including (a) identification of the Sub-project and Executing Agency (EA); (b) brief description of the nature, size, and location of the Sub-project and of its importance to the locality; and (c) any other pertinent background information; and
- Extent of the EMP study: scope of study, magnitude of effort, person or agency performing the study, and acknowledgement.

2) Description of the Sub-project

Furnish sufficient details to provide a detail and clear picture of the following (include only applicable items) e.g.: type of Sub-project; category of Sub-project; location (use maps showing general location, specific location, and Sub-project site); need for Sub-project; Description of sub-project activities by lifecycle; description of the Sub-project including detail design/drawing showing Sub-project layout, and Sub-project components; and proposed schedule of sub-project implementation;

3) Environmental Baseline Condition

Furnish sufficient data/information in brief to provide clear picture of the existing environmental resources of the study area, including the following (to the extent applicable):

a) Site and Surroundings :(e.g.) Administrative context of the sub-project Location; land use of the study area covering 1km from the sub-project location (prepare a map and describe the important features with distance i.e. settlement, growth centers, educational institutes, health centers, mosque/temple, agriculture and fisheries activities, etc.); infrastructure facilities (e.g. water supply, sewerage, flood control); transportation/communication (by roads, waterway, air, and navigation); utility service facilities (water supply, gas, electricity, etc.);

b) Physical Environment: (e.g.) Both primary and secondary data shall have to generate to establish existing physical environmental condition of the study area. Components of physical environment includes: atmosphere (e.g. air quality and climate); topography and soils; hydrology (surface and ground water); geology/ seismology; and background noise.

(Primary data (one set) covering one season (except monsoon) must have to generate to establish baseline conditions of ambient air, sediment, surface water (if any), ground water, and background sound quality of the study area.)

c) Biological Environment: Generate available secondary data/information to describe existing terrestrial and aquatic ecology of study area (e.g.) protected areas, coastal resources, diversity of flora and fauna (wildlife and fisheries) mentioning rare or endangered species, etc.

d) Socioeconomic Environment: General socioeconomic condition of the Sub-project vicinity on available secondary information; present and future trend of economic development i.e. urbanization and industrialization, trade and commerce, agricultural development, mineral development, tourism facilities, etc.

4) Identified Environmental Impact Evaluation and Mitigation Measure

Using the Form-6, checklist of environmental parameters for Sub-projects, this section will screen out “no significant impacts” from those with significant adverse impact by reviewing each relevant parameter according to the stages of the respective sub-project. Mitigation measures, where appropriate, will also be recommended environmental problems due to Sub-project location, and related to Sub-project design, construction, and operations. Potential environmental enhancement measures and additional considerations will also be covered.

5) Environmental Management Plan (EMP)

This section should state the impacts to be mitigated, and activities to implement the mitigation measures that include who (responsible parties/organizations) will do what, how, when, and where. Institutional arrangements for EMP implementation should be described. The environmental monitoring plan will describe the impacts to be monitored, and when and where monitoring activities will be carried out, and who will carry them out. The environmental management and monitoring costs should also be described.

6) Stakeholder Consultation

Scope of stakeholder participation with the targeted sub-project and environmental study is limited. Key Informant Interview with Union Chairman, Ward commissioner, etc. and one stakeholder consultation among the nearby resident members would be sufficient. Documentation and record keeping procedure must follow best practice.

7) Without Sub-project

This section shall describe the consequences that should cover short and long terms environmental and socioeconomic impacts that may causes in case of Sub-project non-implementation.

8) Conclusion and Recommendation

This section will discuss the result of the EMP and justification. Recommendation will be provided whether significant environmental impacts need further detailed study or EIA. If there is no need for further study, the EMP itself, which at times may need to be supplemented by a special study in view of limited but significant impacts, becomes the completed environmental assessment for the Sub-project and no follow-up EIA will be needed.

8. Public Procurement Rules 2008 and the Amendments

Consulting firms and contractors for the Sub-projects are procured in conformity with the Public Procurement Act 2006 and the latest amendment of the Public Procurement Rules enforced by the Central Procurement Technical Unit, Implementation Monitoring and Evaluation Division, Ministry of Planning. So far the Public Procurement Rules 2008 is unique issue available in English, and subsequent amendments were issued in 2009, 2011 and 2014 in Bengali.

The cost of one contract package of a single Sub-project is 30 million to 70 million JPY which is equivalent to 19.4 million to 45.2 million Taka if 1 Taka = 1.55 JPY.

Therefore the relevant legal aspects which are to be enforced to the Sub-projects are extracted from Public Procurement Rules 2008 and subsequent amendments and mentioned in the following table-02.

Table 02 Public Procurement Rules 2008 and the Amendments Enforced to the Sub-projects

CHAPTER 3		
PRINCIPLES OF PUBLIC PROCUREMENT		
PART – 6		
CONTRACT ADMINISTRATION AND MANAGEMENT		
39. Works Contract Administration and Management		
(1) For the purpose of controlling time, cost and quality, the Project Manager shall follow up the Work Programme and ensure that within the time stated in the contract.	Schedule II <u>Extensions of Intended Completion Date</u> • Up to twenty percent (20%) of the original Contract time. Above twenty percent (20%) of the original contract approval of HOPE (Head of the Procuring Entity) shall be required.	(3) The Procuring Entity shall extend the Intended Completion Date by the percentage specified in Schedule II , if a Compensation Event occurs or a Variation Order is issued which does not make it possible to complete the Works by the Intended Completion Date without the Contractor incurring additional cost.
(4) The Procuring Entity shall decide whether and by how much to extend the Intended Completion Date, within the period specified in Schedule II .		Schedule II <u>Time for decision by the Procuring Entity to extend the Intended Completion Date</u> • within twenty one (21) days of the Contractor asking the Project Manager for an extension.
CHAPTER 4		
METHODS OF PROCUREMENT FOR GOODS AND RELATED SERVICES, WORKS, PHYSICAL SERVICES AND THEIR USE		
PART – 1		
NATIONAL PROCUREMENT: OPEN TENDERING METHOD		
61. Use of Open Tendering Method in the Procurement of Goods, Works, Etc.		
(1) The open Tendering shall be the preferred method of Procurement for Goods and related Services, Works and Physical Services, unless the threshold or special circumstances relating to a specific requirement make it more appropriate for one of the other Procurement	Schedule II <u>Time for preparation and submission of Tenders for National Procurement of Goods, Works and Physical Services under the Open Tendering Method from the date of advertisement</u>	

	<p>methods to be used.</p> <p>(2) Tenders shall be invited from all eligible Tenderers through public advertisement under Rule 90.</p> <p>(4) The minimum time allowed for Tenderers to prepare and submit their Tenders for Goods, Works and Physical Services shall not be less than as specified in Schedule II, provided that the Tender Documents are ready for sale and made available by the date of publication of the advertisement.</p>	<ul style="list-style-type: none"> • Not less than fourteen (14) days for Procurement up to Tk. 20 million. • Not less than twenty-one (21) days for contracts above Tk. 20 million and up to Tk. 50 (fifty) million. • Not less than twenty-eight (28) days for contacts above Tk. 50 (fifty) million. • Not less than ten (10) days for emergency Procurement following a catastrophe. • Re-tendering time in case of procurement up to Tk. 20 (twenty) million - ten (10) days; in case of emergency - Seven (7) days and Fourteen (14) days for others
78. Issuance of Variation or Extra Work Orders		
	<p>(1) The Procuring Entity may issue a Variation Order for Procurement of Works, physical Services from the original Contractor to cover any increase or decrease in quantities, including the introduction of new work items that are either due to change of plans, design or alignment to suit actual field conditions, within the general scope and physical boundaries of the contract.</p> <p>(3) Any cumulative Variation, beyond the threshold amount specified in Schedule II, shall be subject of another contract to be tendered out if the Works are separable from the original contract.</p>	<p>Schedule II <u>Price Limit for Variation and Extra Work Orders for Works and physical services</u></p> <ul style="list-style-type: none"> • Not more than Fifteen percent (15%) of the original contract price. <p><u>Time Limit for Processing Work Orders for Variation and Extra Works and physical services</u></p> <ul style="list-style-type: none"> • Not more than 30 (Thirty) days from submission to approval of Variation Order
80. Costing of Variation or Extra Work		
	<p>(4) The Head of the Procuring Entity may, in exceptions to the preceding Rule and subject to the availability of funds, authorise the immediate start of work under any Variation or Extra Work Order under any or all of the following conditions</p> <p>(b) when time is of the essence provided that,</p> <p>(i) the cumulative increase in value of work on the project which has not yet been duly approved does not exceed the percentage specified in Schedule II.</p>	<p>Schedule II <u>Cumulative increase in value of Works on the project</u></p> <ul style="list-style-type: none"> • Does not exceed ten percent (10%) of the adjusted original Contract price.
CHAPTER 5		
PROCESSING OF PROCUREMENT		
PART – 1		
ADVERTISEMENT		
90. Advertisement		
	<p>(1) A Procuring Entity shall be the authority to directly advertise all Invitations for Pre-Qualification (IFPQ), Invitations for Enlistment (IFE), Invitations for Tender (IFT) and Request for Expressions of Interest for Goods and related Services, Works and Physical Services and, intellectual and professional Services, whichever is applicable in accordance with</p>	<p>Schedule II <u>Posting of Procurement related notices in CPTU's Website</u></p> <ul style="list-style-type: none"> • When the official estimated cost of Procurement is Tk. 10 (ten) million and above for Goods and related Services and Works and physical Services • When the official estimated cost of Procurement

	<p>Section 40 of the Act.</p> <p>(2) The Procuring Entities shall advertise their Procurement requirements which have been included into their Annual Procurement Plan in accordance with the following procedures</p> <p>(i) the Procuring Entities shall send Invitations for Procurements where potential contract values are estimated to exceed the amounts specified in Schedule II, or as decide by the Government from time to time, for publication in the CPTU's website.</p>	<p>is Tk. 5 (five) million and above for intellectual and professional Services</p> <ul style="list-style-type: none"> • Advertisement shall be sent to the CPTU (Central Procurement Technical Unit) and the newspapers simultaneously
<p>PART – 2 PRE-QUALIFICATION</p>		
<p>91. Pre-Qualification for Procurement of Goods, Works, Etc.</p>		
	<p>(1) A Procuring Entities may undertake Pre-Qualification for the following large and complex Procurement subject to the thresholds specified in Schedule II</p> <p>(a) Construction Works;</p> <p>(c) Supply and installation of plant and equipment;</p> <p>(d) Design and build infrastructure;</p> <p>(e) Custom designed equipment;</p>	<p>Schedule II <u>Pre-Qualification Thresholds</u></p> <ul style="list-style-type: none"> • Construction Works above Tk. 350 (three hundred fifty) million; • Design and build infrastructure above Tk. 350 (three hundred fifty) million; • Maintenance Work above TK 35 (thirty five) million.
<p>CHAPTER 6 PROCUREMENT OF INTELLECTUAL AND PROFESSIONAL SERVICES</p>		
<p>PART – 1 METHODS AND PROCEDURES</p>		
<p>104. Other Methods for Procurement of Intellectual and Professional Services</p>		
	<p>Other methods for Procurement of intellectual and professional Services may also be used under the conditions set-out in the following paragraphs and with the prior written approval of the Head of a Procuring Entity or an officer authorized by him or her:</p> <p>(a) Least Cost Selection (LCS)</p> <p>(i) is appropriate for the selection of Consultants for an assignment of a standard or routine nature such as audits, architectural and engineering designs of non-complex Works, where established practices and standards exist and in which the Contract amount is small as specified in Schedule II.</p> <p>(ii) The Procuring Entity shall use the procedures specified in Rule 107.</p>	<p>Schedule II <u>Least Cost Selection of Consultant</u></p> <ul style="list-style-type: none"> • Maximum Tk. 5 (five) million
	<p>(d) Single Source Selection (SSS) of firms or individual consultants</p> <p>(2) It may be appropriate only if it presents a clear advantage over competition</p> <p>b. for very small assignments within the threshold specified in Schedule II;</p>	<p>Schedule II <u>Single Source Selection of Consultant</u></p> <ul style="list-style-type: none"> • Maximum Tk. 1,000,000 (one million) for consulting firms • Maximum Tk. 500,000 (five hundred thousand) for individual consultants

	<p>(8) Variation Orders to consultancy contracts shall not exceed the limit specified in Schedule II, unless approved by an authority of level higher than that of the initial Approving Authority as explained in Rule 74 (4).</p>	<p>Schedule II <u>Value of Variation Order for Intellectual and Professional Services</u> • Maximum fifteen percent (15%) of the original Contract price</p>
<p>PART – 2 PROCESSING OF EXPRESSIONS OF INTEREST AND PROPOSALS</p>		
<p>113. Submission of Expressions of Interest (EOI)</p>		
	<p>(1) A Request for Expressions of Interest (EOI) will be issued in order to receive the background information about interested Applicants necessary to prepare a short-list of Applicants to which, at a later date, the RFP will be issued.</p>	<p>Schedule II <u>Time for preparation and submission of Expression of Interest for Procurement of intellectual and professional Services</u> • Minimum fourteen (14) days for national Procurement</p>
	<p>(2) The Request for EOI shall be advertised as described in Rule 90 and shall allow potential Applicants the period specified in Schedule II to present their Expressions of Interest.</p>	
<p>115. Assessment of Expressions of Interest and Approval of Short-List, Etc.</p>		
	<p>(1) A Proposal Evaluation Committee (PEC) constituted under Rule 8 shall, on the basis of the information specified in the Request of Expressions of Interest, review and assess the Expressions of Interest received, in order to prepare a short-list composed of Applicants who are considered to be best qualified to undertake the assignment.</p>	<p>Schedule II <u>Number of Consultants in a short-list</u> • not less than four (4) and not more than seven (7) Applicants • preferably six (6)</p>
	<p>(3) Following the assessment, the PEC shall prepare a short-list, composed of the number specified in Schedule II, not less than four (4) and not more than seven (7) Applicants which have met the requirements of the EOI and who in the opinion of the PEC indicate sufficient and adequate capacity to perform the assignment under consideration, and submit its report with recommendations to the Head of the Procuring Entity for approval.</p>	
<p>117. Preparation and Issue of Request for Proposal (RFP) Document.</p>		
	<p>(1) A Procuring Entity shall prepare a Request for Proposal (RFP) Document using the applicable standard RFP Documents issued by the Government and distribute such Documents to the short-listed Applicants.</p>	<p>Schedule II <u>Time for preparation and submission of Proposal for intellectual and professional Services</u> • Minimum twenty-eight (28) days for national Procurement</p>
	<p>(19) Applicants shall be given at least the minimum time for preparation of Proposals specified in Schedule II.</p>	

9. Attachment

Form No.	Titles of Form
	SOS Form
	Form-D
Form-01	Recognition of Severer Natural Disaster
Form-02	Application for Using the Disaster Recovery Fund for Sub-project
Form-03	Initial Environmental and Social Investigation Checklist
Form-04	Confirmation of Disaster Occurrence
Form-05	Joint Site Inspection regarding the Candidate Sub-project
Form-06	Environmental and Social Screening Checklist
Form-07	Comments on the Result of Joint Site Inspection
Form-08	Request for Approval for Using the Disaster Recovery Fund
Form-09	Provisional Approval for Granting the Disaster Recovery Fund
Form-10	Receipt of Provisional Approval for Granting the Disaster Recovery Fund
Form-11	Approval for Granting the Disaster Recovery Fund
Form-12	Receipt of Approval for Granting the Disaster Recovery Fund
Form-13	Submission of Design Documents of the Sub-project
Form-14	Cost Estimate of Sub-project
Form-15	Overall Sub-Project Implementation Schedule
Form-16	Determination of Amount Granted to the Sub-project
Form-17	Notice of Advertisement for Construction Work of the Sub-project
Form-18	Signing of Contract for Construction Work of the Sub-project
Form-19	Request for Assessment and Approval for the Variation Order to Sub-project
Form-20	Comments on Request for the Variation Order to Sub-project
Form-21	Contract Amendment for Construction Work of the Sub-project
Form-22	Contract Amendment for Consulting Services of the Sub-project
Form-23	Contract Completion for Construction Work of the Sub-project
Form-24	Contract Completion for Consulting Services of the Sub-project
Form-25	Report on Defect Liability Inspection for the Sub-project

SOS Form

APPENDIX 13

SOS FORM: APPROXIMATE LOSS AND DAMAGE AND EMERGENCY REQUIREMENT

Approximate Loss and Damage and Emergency Requirement

- Name of Upazila :
- Name of District :
1. Affected Unions (Number) :
 2. Number of affected people (Approx) :
 3. House Destroyed (Approx) : (1) Partly
(2) Fully
 4. Death (Approx) :
 5. Missing People :
 6. Search/Rescue : Necessary/Not necessary
 7. Type of Health Aid : Necessary/Not necessary
 8. Drinking water : Necessary/Not necessary
 9. Ready Food : Necessary/Not necessary
 10. (a) Clothing : Necessary/Not necessary
(b) Type of Clothing
 11. Emergency shelter : Necessary/Not necessary
 12. Any other emergency equipment/ materials :

* Please send this information as primary report within one hour after the occurrence of disaster or as soon as possible through telephone, Fax or wireless by Upazila Nirbahi Officer to District Administration DMB and EOC at the of Disaster Management and Relief Division.

Form-D

APPENDIX 14

FORM-D: ASSESSMENT OF LOSS AND DAMAGE

Form for Assessment of Damage and loss

Form-D

Chairman, Upazila Disaster Management Committee will collect detailed information from Union Parishads and various departmental officers and fill up this form and send to the EOC at Disaster Management & Relief Division with a copy to Disaster Management Bureau through the Deputy Commissioner.

1	2	3	4	5					6	7	8	9	10	
Name of Upazila	Total Union (nos)	Total areas (sq km)	Char Areas (if any) (sq km)	Total population (No.)					Total families/ households	Cost of house Tk/Unit	Repairing Cost of house Tk/Unit	Other information (housing materials used)	Total disaster shelter (GOs and NGOs)	Information source
														Baseline data/ Basic statistics
Name of Upazila	Affected Union (No.)	Affected Area (sq km)	Affected Char areas (sq km)	Affected population (No)	No. of dead (buried/ cremated)	No. of injured	No. of missing people	No. of Hospitalized	Number of affected families	No. of house (Fully damaged)	No. of houses (Partially damaged)	No of 1-kancha 2-pacca house damaged	Shelter used during disaster (if any)	
													Established Shelter	Makeshift /Camp/ Emergency shelters

11		12		13		14				15		16		17	
Sheep and goat (No.)		Cattle and buffalo (No.)		Poultry (Chicken and Duck) (No.)		Total crop land /Seed bed				Other farms (Hatchery, fisheries, shrimp etc)		Total Power/Sewerage / Gas/ Water lines and related equipment (unit)		Other infrastructure (mobile towers, cold storages, goodown, public & private establishments)	
Death and washed out sheep and goats		Death and washed out cattle and buffalo including farms		Death and washed out poultry including farms		Fully damaged		Partially damaged		Damaged other farms (Hatchery, fisheries, shrimp, Gher, fish fingerlings etc		Damaged Power/ Sewerage / Gas/ Water lines and related equipment		Damaged other infrastructure (if any)	
Number	Taka/unit	Number	Taka/unit	Number	Taka/unit	ha	Taka/ha	ha	Taka/ha	ha	Taka/ha	Fully (cost Tk)	Partially (cost Tk)	Fully (cost Tk)	Partially (cost Tk)

Form for Assessment of damage and loss

18				19				20				21				22				23				24			
Total Mosques/Temples/ Church/ pagoda No.				Carpeted roads (km)				Other roads (km)				Embankments (km) River, Coastal, Haor				Total forests / tree plantation / nursery areas (ha)				Total Educational Institutes (College, primary and high schools, madrasha and other community school)				Total Telecom-communication means			
Number of damaged mosques/temples				Destroyed carpeted roads (km)				Damaged other roads (km)				Destroyed embankments/ bridge/ culvert (km)				Damaged forests/ tree plantation / nursery area (ha)				Damaged educational institutes (1-College, 2-high school and 3-primary school, 4-madrasha and 5-other community schools)				Damaged Telecom-communication means			
Fully		Partially		Fully		Partially		Fully		Partially		Fully		Partially		Fully		Partially		Fully		Partially		Fully		Partially	
No.	Tk/unit	No.	Tk/unit	km	Tk/km	km	Tk/km	km	Tk/km	km	Tk/km	km	Tk/km	km	Tk/km	ha	Tk/ha	ha	Tk/ha	No.	Tk/unit	No.	Tk/unit	No.	Tk/unit	No.	Tk/unit

25				26				27				28				29				30						
Other Industry (garments, agro-processing, dry fish, salt etc)				Tube-wells (Shallow and deep)				Pond/Water reservoir (Nos)				Hospital/clinic/health centre and medical equipments				Fishing nets boats/ Trawlers				Looms/ hand looms/ Cottage Industries (No)						
Damaged others industry (garments, agro-processing, dry fish, salt etc)				Damaged tube-wells				Damaged Pond/Water reservoir/ Salinity and other contamination in water bodies (Nos)				Damaged Hospital/clinic/health centre and medical equipments				Lost /damaged boat/trawlers/fishing nets/ Other Vehicles				Damaged Looms/handlooms/ Cottage Industries						
Fully		Partially		Deep		Shallow		Hand driven		Fully		Partially		Fully		Partially		Fully		Partially		Fully		Partially		
No.	Tk/unit	No.	Tk/unit	No.	Tk/unit	No.	Tk/unit	No.	Tk/unit	No.	Tk/unit	No.	Tk/unit	No.	Tk/unit	No.	Tk/unit	No.	Tk/unit	No.	Tk/unit	No.	Tk/unit	No.	Tk/unit	

Form-01

Recognition of Severer Natural Disaster

Recognition of Severe Natural Disaster

Date : <Day / Month / Year>

To : Chairperson,
Project Coordination and Monitoring Unit,
Disaster Recovery Fund,
Additional Secretary,
Ministry of Disaster Management and Relief,
Government of the People's Republic of Bangladesh

Sir,

I hereby issue “**Recognition of Severe Natural Disaster**” since the number of affected people in <Upazila>, <District>, <Division> has been confirmed by the latest official information to fulfill “Extent of Damage” and one or more out of “Intensity of Hazard” in the following table.

References of Severe Natural Disaster for the Disaster Recovery Fund			Check
Intensity of Hazard	Precipitation	More than 50 mm/day	Yes
	Water level	Above “Danger Level”	Yes
	Wind speed	More than 70km/h 3 minute average sustained wind speed	Yes
	Earthquake intensity	More than “IV” of The Modified Mercalli Intensity Scale	Yes
Extent of Damage	Number of Affected Families (Upazila)	More than 1,000 families	(Yes)

<Signature of Chairperson>

<Name of Chairperson>

Chairperson,
Project Steering Committee,
Disaster Recovery Fund,
Secretary,
Ministry of Disaster Management and Relief,
Government of the People's Republic of Bangladesh

Form-02

Application for Using the Disaster Recovery
Fund for Sub-project

Application for Using the Disaster Recovery Fund for Sub-project

Date : <Day / Month / Year>

To : Chairperson,
Project Steering Committee,
Disaster Recovery Fund,
Secretary,
Ministry of Disaster Management and Relief

Sir,

We hereby submit the following documents as per the discussion and selection made in the District Disaster Management Committee of <Name of District> District held on <Day / Month / Year>.

Documents	Number
Form-02 Application for Using the Disaster Recovery Fund for Sub-project	one A4 size original
SOS Form	one A4 size copy
Form-D	one A4 size copy
Form-03 Initial environmental and social investigation checklist	one A4 size copy
Minutes of meeting at DDMC	one A4 size copy

You are kindly requested to conduct immediately the Joint Site Inspection for the assessment of using the Disaster Recovery Fund for our Candidate Sub-project.

<Signature of Applicant>

<Name of Applicant>

<Designation of Applicant>

Project Implementation Unit

<Name of Office>

*Bangladesh Water Development Board / Department of Disaster Management / Local
Government Engineering Department*

<Signature of DDMC Member 1>

<Name of DDMC Member 1>

<Designation of DDMC Member 1>

<Original Agency of DDMC Member 1>

District Disaster Management Committee

<Signature of DDMC Member 2>

<Name of DDMC Member 2>

<Designation of DDMC Member 2>

<Original Agency of DDMC Member 2>

District Disaster Management Committee

<Signature of DDMC Member 3>

<Name of DDMC Member 3>

<Designation of DDMC Member 3>

<Original Agency of DDMC Member 3>

District Disaster Management Committee

1. Outline of the Candidate Sub-project

1	Title of Candidate Sub-project	
2	Date of disaster occurrence	<i>Day/Month/Year</i>
3	Type of disaster occurred	<i>Flood / Water logging / River bank erosion / Cyclone / Storm surge / Tornado / Landslide / Earthquake / Tsunami / Slope failure</i>
4	Project Implementation Unit	DDM / LGED / BWDB Office:
5	Location	<i>Village, Union Parishad, Upazila, District, Division</i>
		(Easting, Northing) of GPS in WGS84:
6	Affected infrastructure(s) in the sub-project	<i>Flood countermeasure facilities (Dike, Polder, Bank revetment, Sluice gate, Rubber dam etc.) / Rural road / Rural bridge / Bridge / Culvert / Cyclone shelter / Flood shelter</i>
7	Description of loss and damage of the affected infrastructure(s) in the sub-project	
8	Emergent countermeasures being taken, after the disaster occurrence, for the affected infrastructure(s) in the sub-project	
9	Proposed scope of the sub-project	<i>Please describe the scope of recovery works inclusive of improvement/reconstruction of the affected infrastructure(s):</i> • • • •
10	Assumed total cost including construction work and consulting services in single value of Taka	<i>Please describe assumed total cost including construction work and consulting services (detailed design, topographic survey, geological survey, tender document, environmental management plan, construction supervision and other necessary work) in single value of Taka.</i>
11	Why is the sub-project necessary to implement immediately?	

12	What risk /impact are conceivable to give the local if the candidate sub-project is not implemented?		
13	Why is the Disaster Recovery Fund applied to use instead of the other budget/fund?		
14	Please describe the total amount of budget/fund allocable to your office in the fiscal year of disaster occurrence and the residual budget/fund so far available for the implementation of the candidate sub-project.	Maintenance budget/fund	<i>Please describe the total amount of Maintenance budget/fund allocable to your office in the fiscal year of disaster occurrence.</i>
			<i>Please describe the residual maintenance budget/fund so far available for the implementation of the candidate sub-project in the fiscal year of disaster occurrence.</i>
			<i>Please describe why the residual maintenance budget/fund so far is insufficient for the implementation of the candidate sub-project.</i>
		Emergency budget/fund	<i>Please describe the total amount of Emergency budget/fund allocable to your office in the fiscal year of disaster occurrence.</i>
			<i>Please describe the residual emergency budget/fund so far available for the implementation of the candidate sub-project in the fiscal year of disaster occurrence.</i>
			<i>Please describe why the residual emergency budget/fund so far is insufficient for the implementation of the candidate sub-project.</i>

2. Location Map of the Sub-Project

Please attach location map of the sub-project using a map of Google/Survey of Bangladesh/LGED/Other available.

3. Conceptual Drawings of Sub-project

PLAN

Please attach conceptual drawings of the sub-project for showing the images of “Plan”, “Transverse sections” and “Other necessary parts” by hand or CAD drawing. No detail drawing is required.

TRANSVERSE SECTIONS

OTHER NECESSARY PARTS

4. Photographs of Affected Infrastructure(s)

PANORAMIC VIEW

Please attach photographs of the affected infrastructure(s) for the sub-project as per instructed in the Manual for Operation of Disaster Recovery Fund.

PANORAMIC VIEW

TRANSVERSE SECTION VIEW

TRANSVERSE SECTION VIEW

5. Cost of Single Sub-project

The amount of the Disaster Recovery Fund used in one contract package of a single Sub-project is **30 million to 70 million JPY**. Moreover, the annual upper limit of use is **approximately 1.5 billion JPY**. However, if amount used in a year exceeds 1.5 billion JPY, it is necessary for each implementing agency to hold discussions with JICA and obtain its consent.

6. Defining Indicators of Severe Natural Disasters

Definitions

The Sub-project eligible for the Disaster Recovery Fund is targeted to implement recovery and rehabilitation work of the infrastructures stipulated in Table “Targeted Infrastructures” below, which are under respective jurisdiction of LGED, BWDB and DDM”, affected by the natural disaster defined in Table “Types of Targeted Natural Disaster” below.

Target Infrastructures

Target Infrastructures
Flood Countermeasure Facilities (Dikes, Polders, Bank Revetments, Sluice Gates, Rubber Dams etc.)
Rural Roads
Rural Bridges
Bridges/Culverts
Cyclone / Flood Shelters

Types of Targeted Natural Disaster

Type of Disaster	Hazards
Meteorological disasters	Flood
	Water logging
	River Bank Erosion
	Cyclone
	Storm Surge
	Tornado
	Landslide
Seismic disaster	Earthquake
	Tsunami
	Landslide including slope failure

The application of the Sub-project for the Disaster Recovery Fund is required to fulfill “Extent of Damage” and one or more out of “Intensity of Hazard” in the following table after the Disaster Recovery Fund gets enforced.

Defining Indicators of Severe Natural Disasters

References			
Intensity of Hazard	Precipitation	More than 50 mm/day	Records at officially recognized gauging posts
	Water level	Above “Danger Level”	Values at water level gauging posts set by the BWDB
	Wind speed	More than 70km/h 3 minute average sustained wind speed	Records at officially recognized gauging posts
	Earthquake intensity	More than “IV” of the Modified Mercalli Intensity Scale	Data published by a reliable agency such as U.S. Geological Survey (USGS)
Extent of Damage	Number of Affected Families (Upazila)	More than 1,000 families	Data on the SOS Form and the Form-D

Meteorological Records

The meteorological data, which triggered the loss and damage of the infrastructures in the sub-project, recorded by the officially recognized organization are tabulated as follows.

Precipitation

Gauging points	Daily precipitation	Recorded date	
Name of gauging point:	mm/ day	Day/Month/Year	
<i>Village, Union Parishad, Upazila, District, Division</i>			
Name of gauging point:	mm/ day	Day/Month/Year	
<i>Village, Union Parishad, Upazila, District, Division</i>			
<i>Village, Union Parishad, Upazila, District, Division</i>			

Water Level

Gauging points	Warning level	Danger level	Recorded level	Duration at and above Danger level
Name of gauging point:	m PWD	m PWD	m PWD	Day/Month/Year
River:				
<i>Village, Union Parishad, Upazila, District, Division</i>				
Name of gauging point:	m PWD	m PWD	m PWD	Day/Month/Year
River:				
<i>Village, Union Parishad, Upazila, District, Division</i>				

Wind Speed

Gauging points	Maximum wind speed	Recorded date	
Name of gauging point:	km/hour	Day/Month/Year	
<i>Village, Union Parishad, Upazila, District, Division</i>			
Name of gauging point:	km/hour	Day/Month/Year	
<i>Village, Union Parishad, Upazila, District, Division</i>			

Earthquake Intensity

Gauging points	Intensity scale	Recorded date	
Name of gauging point:		Day/Month/Year	
<i>Village, Union Parishad, Upazila, District, Division</i>			
Name of gauging point:		Day/Month/Year	
<i>Village, Union Parishad, Upazila, District, Division</i>			

Form-03

Initial Environmental and Social Investigation
Checklist

Initial Environmental and Social Investigation Checklist

(Sub-division Engineer of BWDB/Upazila Engineer of LGED/
PIO of DDM shall carryout investigation and fill up this page only)

Reporting organization	BWDB / DDM / LGED Office:			
Type of disaster occurred	Flood / Water logging / River bank erosion / Cyclone / Storm surge / Tornado / Landslide / Earthquake / Tsunami / Slope failure			
Date of disaster occurrence	<i>Day/Month/Year</i>			
Title of candidate Sub-project				
Location of Sub-project	<i>Village, Union Parishad, Upazila, District, Division</i>			
Description of loss and damage of affected infrastructure(s)				
Emergent countermeasure				
Consequences/concerned issues that affect the Local Community due to loss and damage of the infrastructure(s)	<i>Please draw information through visual observation and consultation with local people regarding Consequences/ concerned Issues i.e. local communication, inundation of homestead/ agricultural land/ fish pond/ Shrimp gher/ educational institute etc. that are caused due to loss and damage of candidate sub-project.</i>			
Does countermeasure include improvement or re-alignment of affected infrastructure(s)?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
if yes, does improvement or re-alignment of the affected infrastructure(s) require additional land?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
if yes, what is the ownership status of additional land?	Government	<input type="checkbox"/>	Private	<input type="checkbox"/>
Would sub-project cause physical displacement of affected infrastructure(s)?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Is there any Indigenous Peoples Community/ household residing on or within 1km from the affected infrastructure(s)?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Name and Signature of Investigator				
Designation				
Date of Investigation				

Analysis of Initial Findings and Summary

(Respective District Executive Engineer of BWDB and LGED and DRRO of DDM shall prepare this Summary)

Please justify in brief the necessity of the candidate sub-project.					
Would the sub-project require land acquisition?					
Would the sub-project require land acquisition?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	<i>Please provide available information if answered "yes"</i>
Is there any Indigenous Peoples Community residing in close proximity of the affected infrastructure(s)?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	<i>Please provide available information if answered "yes"</i>
Is there any environmentally or socially concerned issue that require special attention?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	<i>Please describe in brief if answered "yes"</i>
Category of the sub-project according to the Environment Conservation Rules, 1997	Orange B	<input type="checkbox"/>	Red	<input type="checkbox"/>	<i>List of the candidate sub-project's categories is as per attached in the following sheet. If not specified, please consult with the nearest regional office of "Department of Environment" to determine the "Category" of the sub-project.</i>
Name and Signature of Assessor					
Designation					
Date of Assessment					

Requirement of “Environmental Clearance Certificate (ECC)”

SL NO	Targeted Infrastructure	Category according to the Schedule-1 of ECR'97	Document requires for ECC (according to the Clause-7.(6) b & C of ECR'97)
1	Construction, re-construction and extension of road (feeder road, local road)	Falls under Item-63 of ORANGE-B category.	-EMP report -and other doc
2	Construction, re-construction and extension of road (regional, national and international road)	Falls under Item-67 of RED category.	-EMP report -and other doc
3	Construction, re-construction and extension of bridge (length below 100 meters)	Falls under Item-64 of ORANGE-B category.	-EMP report -and other doc
4	Construction/reconstruction/expansion of bridge (length 100 meter and above)	Falls under Item-68 of RED category.	-Submission and approval of TOR of EIA study. -EIA report -and other doc
5	Construction/reconstruction/expansion of flood control embankment, polder, dike, Sluice gate etc.	Falls under Item-66 of RED category.	-Submission and approval of TOR of EIA study. -EIA report -and other doc

Source: Environment Conservation Rules, 1997

Form-04

Confirmation of Disaster Occurrence

Confirmation of Disaster Occurrence

Date : <Day / Month / Year>

To : <Name of Applicant>
<Designation of Applicant>,
Project Implementation Unit,
<Name of Office>,
*Bangladesh Water Development Board / Department of Disaster Management /
Local Government Engineering Department*

<Name of DDMC Member 1>
<Designation of DDMC Member 1>
<Original Agency of DDMC Member 1>
District Disaster Management Committee

<Name of DDMC Member 2>
<Designation of DDMC Member 2>
<Original Agency of DDMC Member 2>
District Disaster Management Committee

<Name of DDMC Member 3>
<Designation of DDMC Member 3>
<Original Agency of DDMC Member 3>
District Disaster Management Committee

Sirs,

We hereby confirmed the fact that the infrastructure described in your Candidate Sub-project was affected by <Type of disaster> of <Day / Month / Year> upon confirming your Application for Using the Disaster Recovery Fund for Sub-project of <Day / Month / Year>.

<Signature of Chairperson>

<Name of Chairperson>
Chairperson,
Project Steering Committee,
Disaster Recovery Fund,
Secretary,
Ministry of Disaster Management and Relief

Form-05

Joint Site Inspection regarding the Candidate
Sub-project

Joint Site Inspection regarding the Candidate Sub-project

Date : <Day / Month / Year>

To : <Mr. Name of Applicant>
<Designation of Applicant>,
Project Implementation Unit,
<Name of Office>,
*Bangladesh Water Development Board / Department of Disaster Management /
Local Government Engineering Department*

Sir,

We hereby inform you of the implementation of Joint Site Inspection regarding the Candidate Sub-project which you have applied to use the Disaster Recovery Fund as described in the following.

You are kindly requested to make the necessary preparation at the site and your office.

1. Title of the Candidate Sub-project

Title of Candidate Sub-project	
Date of disaster occurrence	<i>Day/Month/Year</i>
Type of disaster occurred	<i>Flood / Water logging / River bank erosion / Cyclone / Storm surge / Tornado / Landslide / Earthquake / Tsunami / Slope failure</i>
Project Implementation Unit	<i>Name of Office, BWDB / DDM / LGED</i>
Location	<i>Village, Union Parishad, Upazila, District, Division</i>
Affected infrastructure(s)	<i>Flood countermeasure facilities (Dike, Polder, Bank revetment, Sluice gate, Rubber dam etc.) / Rural road / Rural bridge / Bridge / Culvert / Cyclone shelter / Flood shelter</i>

2. Proposed date of Joint Site Inspection for the Candidate Sub-project

<Day / Month / Year> to <Day / Month / Year>

3. Composition of Assessors

Member	Agency	Designation	Name
Assessor 1	<i>Name of Office, BWDB / DDM / LGED</i>		
Assessor 2	PCMU	JICA Expert	
Assessor 3	PCMU Secretariat		

4. Proposed Itinerary of Joint Site Inspection regarding the Candidate Sub-project

Date	Time		Works	Remarks
	Dep.	Arr.		
10/Oct./ 20XX	06:00	11:00	Dhaka → Office of sub-project applicant	By PCMU's vehicle
	11:00	12:00	Briefing on the candidate sub-project	At meeting room of the applicant's office
	12:00	13:00	Lunch break	
	13:00	13:30	Office → Site	
	13:30	16:00	Joint site inspection	
	16:00	16:30	Site → Hotel	XX Hotel
11/Oct./ 20XX	09:00	12:00	Joint meeting on the candidate sub-project	At meeting room of the applicant's office
	12:00	13:00	Lunch break	
	13:00	18:00	Office of sub-project applicant → Dhaka	By PCMU's vehicle

<Signature of Chairperson>

<Name of Chairperson>

Chairperson,
Project Coordination and Monitoring Unit,
Disaster Recovery Fund,
Additional Secretary,
Ministry of Disaster Management and Relief

Form-06

Environmental and Social Screening Checklist

Environmental and Social Screening Checklist

(Screening should be accomplished by the outsourced Environment Consultant or Environmental division/ wing of respective Project Implementing Agency)

About the Candidate Sub-project

1	Title of Candidate Sub-project	
2	Date of disaster occurrence	<i>Day/Month/Year</i>
3	Type of disaster occurred	Flood / Water logging / River bank erosion / Cyclone / Storm surge / Tornado / Landslide / Earthquake / Tsunami / Slope failure
4	Project Implementation Unit	BWDB / DDM / LGED Office:
5	Location	<i>Village, Union Parishad, Upazila, District, Division</i>
		(Easting, Northing) of GPS in WGS84:
6	Affected infrastructure(s) in the sub-project	Flood countermeasure facilities (Dike, Polder, Bank revetment, Sluice gate, Rubber dam etc.) / Rural road / Rural bridge / Bridge / Culvert / Cyclone shelter / Flood shelter
7	Description of loss and damage of the affected infrastructure(s) in the sub-project	
8	Proposed scope of the sub-project	<i>Please describe the scope of recovery works inclusive of improvement/reconstruction of the affected infrastructure(s):</i> • • •

Considerations- Sub-project Identification

9	Did the sub-project consider alternative analysis to avoid or minimize environmental and social impact at the stage of preparing/developing project's outline?	Yes / No <i>If yes, please describe the prospective alternative analysis in brief.</i>
10	Why is the sub-project necessary to implement immediately?	

Environmental and Social Concerns

<p>11) Settings: Is the candidate sub-project area located within or adjacent (1km near) to the following environmentally sensitive area? If answered yes, please mention whether the sub-project may disrupt the environment of the sensitive area and how?</p>			
Environmental and Social Aspects/Issues	Anticipated Impact Status/ Concerns		
	Yes	No	Remarks
Cultural heritage site			
Protected area			
Wetland			
Mangrove			
Estuary			
Fish/ Bird Centaury, Migratory Bird Roosting/ Sea Turtle Nesting area			
Others e.g. special area for protecting biodiversity etc.			
<p>12) Anticipated Environmental Impacts: Would the sub-project cause any of the following impacts?</p>			
Ambient air pollution due to gaseous emission from construction equipment and vehicles?			
Fugitive dust during transportation, unloading, and storage of construction materials?			
Risk of oil spills, which could pollute soil of adjacent agricultural land, fish pond, shrimp gher, river surface water and ground water?			
Short-term soil erosion and silt runoff during construction work, which could pollute fish pond, shrimp gher, surface water body etc.?			

Environmental and Social Aspects/Issues	Anticipated Impact Status/ Concerns		
	Yes	No	Remarks
Obstacle in natural flow of canal/ river water bodies or existing drainage system?			
Noise and vibration from construction activities?			
Risk of public health hazard-transmittal and other diseases from in-migrant construction workers and unhygienic sanitation of their camp?			
Public safety hazards due to increase of traffic volume and equipment movement?			
13) Anticipated Social Impacts: Would the sub-project cause any of the following impacts?			
Land Acquisition due to additional land requirement for the improvement/ re-alignment of the candidate sub-project?			
Temporary or permanent displacement of housing/ commercial/ other purpose structure?			
Direct or indirect affect to the livelihood of any group of Indigenous People/ household residing in or within 1km from the sub-project site?			
Social conflicts between in-migrant construction workers and local workers?			
14) With Sub-project: Please point out benefits and beneficiaries.			
15) Without Sub-project: Please point out the consequences.			

16) Site and Surroundings:

Please describe in brief important features surrounding 1km radius around the affected infrastructure(s) using a map of Google/Survey of Bangladesh/LGED/Other available.

Attach photographs of the affected infrastructure(s) and important features as many as possible.

**SITE AND SURROUNDING FEATURE MAP OF 1KM RASIUS AROUND
THE AFFECTED INFRASTRUCTURE(S)**

PHOTOGRAPHS

<p><i>Caption</i></p>	<p><i>Caption</i></p>
<p><i>Caption</i></p>	<p><i>Caption</i></p>
<p><i>Caption</i></p>	<p><i>Caption</i></p>
<p><i>Caption</i></p>	<p><i>Caption</i></p>

PHOTOGRAPHS

<i>Caption</i>	<i>Caption</i>
<i>Caption</i>	<i>Caption</i>
<i>Caption</i>	<i>Caption</i>

Name and Signature of Field Investigator:
Designation/ Position in Survey Team:
Date:

Analysis and Summary of Anticipated Impact Issues

(Please mention the major issues that should be known by the PIUs at early stage and should be assessed further in Environmental and Social Assessment Study i.e. EMP/ EIA/RAP)

Concern Items/ Impact Issues	Anticipated Major Impact Issues
Settings of Site and Surrounding of Candidate Sub-project	
Land Acquisition	
Ambient Air Quality	
Ground and Surface Water Quality	
Subsoil and sediment	
Existence of Indigenous People's Community/ Households adjacent to the Site	
Livelihood of Indigenous Community/ Households and Surrounding Community Peoples	
Others	

Conclusion

Category of the Candidate Subproject according to the Environmental Conservation Rules 1997, GoB	
Requirement of Environmental and Social Studies to obtain Environmental Clearance Certificate from Department of Environment, MoEF, GoB	

Name of Assessor and Signature	
Designation/ Position in Survey Team	
Date	

Approval of Report (On behalf of respective PIU)

Reviewed by (Name and Signature)	
Approved by (Name and Signature)	
Date	

Form-07

Comments on the Result of Joint Site
Inspection

Comments on the Result of Joint Site Inspection

Date : <Day / Month / Year>

To : <Mr. Name of Applicant>,
<Designation of Applicant>,
Project Implementation Unit,
<Name of Office>,
*Bangladesh Water Development Board / Department of Disaster Management /
Local Government Engineering Department*

Sir,

We hereby inform you of our comments on the result of Joint Site Inspection regarding the Candidate Sub-project which you have applied to use the Disaster Recovery Fund as described in the following.

Title of Candidate Sub-project										
Date of disaster occurrence	<i>Day/Month/Year</i>									
Type of disaster occurred	<i>Flood / Water logging / River bank erosion / Cyclone / Storm surge / Tornado / Landslide / Earthquake / Tsunami / Slope failure</i>									
Location	<i>Village, Union Parishad, Upazila, District, Division</i>									
Affected infrastructure(s)	<i>Flood countermeasure facilities (Dike, Polder, Bank revetment, Sluice gate, Rubber dam etc.) / Rural road / Rural bridge / Bridge / Culvert / Cyclone shelter / Flood shelter</i>									
Date of joint site inspection	<i>Day/Month/Year to Day/Month/Year</i>									
Scoring for sub-project prioritization, Full score = 30	<i>Score / 30</i>									
Eligibility to the Disaster Recovery Fund	<input checked="" type="checkbox"/> Eligible									
	<input type="checkbox"/> Ineligible because of	A	B	C	D	E	F	G	H	I
Assessor's comments										

For our confirmation of the contents of design and our determination of the cost of Candidate Sub-project allocated from the Disaster Recovery Fund, you are kindly requested to submit the following documents by <Day / Month / Year> which are agreed in the Joint Site Inspection of <Day / Month / Year>.

Documents	Number
Design drawings	two A3 size copies and one soft copy
Cost estimate	two A4 size copies
Proposed implementation schedule	two A4 size copies
Design note	two A4 size copies and one soft copy
Environmental management plan	two A4 size copies

<Signature of Chairperson>

<Name of Chairperson>

Chairperson,
Project Coordination and Monitoring Unit,
Disaster Recovery Fund,
Additional Secretary,
Ministry of Disaster Management and Relief

1. Scoring of the Candidate Sub-project for Implementation Prioritization

The candidate sub-projects shall be scored for the implementation prioritization with the following criteria.

Criteria		Score	What happened in Disaster	
			Evaluation	Parameters
Extent of Damage	Number of affected people	10	Exceptionally Large number of people were affected	More than 100,000 people in a target Upazila were affected.
		8	Very Large number of people were affected.	More than 50,000 people in a target Upazila were affected.
		6	Large number of people were affected	More than 25,000 people in a target Upazila were affected.
		4	Medium Number of people were affected.	More than 10,000 people in a target Upazila were affected.
		2	Low Number of people were affected.	Less than 10,000 people in a Upazila were affected.
	Amount of economic loss	5	Exceptionally Huge economic loss was experienced.	Most of agricultural products in a union were affected.
		4	Very Huge number of economic loss was experienced.	The central market in target Upazila was totally flushed out.
		3	Large number of economic loss was experienced.	The biggest industry factory in target Upazila stopped operation for more than 1 month.
		2	Medium Number of economic loss was experienced.	More than 30% of agricultural lands in a union were inundated.
		1	Low Number of economic loss was experienced.	Some farmer's lands were washed out.

Criteria		Score	What will happen without immediate recovery work	
			Evaluation	Parameters
Extent of Assumed Damage in the Future	Expected damage of socioeconomic infrastructure	5	The most important socioeconomic infrastructure in the division will be damaged in case recovery work cannot be implemented.	Further damage of the embankment will affect the operation of airport/port.
		4	Small-scaled disaster will affect socioeconomic infrastructure.	The important bridge in region will collapse.
		3	Medium-scaled disaster will affect socioeconomic infrastructure.	The important community road will become impassable during heavy rain.
		2	Large-scaled disaster will affect socioeconomic infrastructure.	Damaged bridge will completely collapse by large-scaled disaster. Damaged revetment affect stability of the important bridge.

Criteria		Score	What will happen without immediate recovery work	
			Evaluation	Parameters
		1	Damaged portions are still durable compared to other ordinary portion.	Damaged bridge and road will still function. Damaged portions of river bank repaired by Temporary works will function.

Criteria		Score	Current Condition	
			Evaluation	Parameters
Damaged Degree of the Infrastructure		5	Completely Disappearance / Loss	Almost completely disappearance of a series of embankment (more than 100meter wide) or totally collapse of a bridge, ...
		4	Severely damaged	Some portions of embankment with revetments were flushed out (less than 100 meter wide) A bridge abutment tilts to the side. A bridge girder gets broken.
		3	Moderately damaged	Several sections of revetments of embankment were flushed out. Footing of a pier of bridge is eroded.
		2	Partially damaged	Some portions of embankment were eroded. Handrails of Bridges are damaged.
		1	Less/Minor Damaged	Minor repair works were needed.

Criteria		Score	Consideration of Vulnerability to Disasters	
			Evaluation	Parameters
Vulnerabilities of Target Upazila	Upper Poverty Line (BBS 2010 or later)	5	Target Upazila with very high poverty line	More than or equal to 55.0 %
		4	Target Upazila with high poverty line	40.0% ~ 54.9%
		3	Target Upazila with medium poverty line	28.0% ~ 39.9%
		2	Target Upazila with low poverty line	14.0% ~ 27.9%
		1	Target Upazila with very low poverty line	Lower than or equal to 13.9%

Highest score	30	Highest priority for implementation of the candidate sub-project
Lowest score	6	Lowest priority for implementation of the candidate sub-project

2. Ineligibility of the Candidate Sub-project for the Disaster Recovery Fund

The Disaster Recovery Fund shall not be applicable to the following cases.

- A : Damage caused by natural disasters that are not eligible for Recognition of Severe Natural Disaster
- B : Cases where the actual recovery is deemed to be within the scope of routine maintenance
- C : Cases where the damage has been caused by failure to implement appropriate maintenance
- D : Diversion of funds to projects by international aid agencies, NGOs, etc.
- E : Disasters arising from design fault or defects in execution
- F : River dredging works that are not deemed to be particularly necessary for maintenance or for the public benefit
- G : Collapse of natural riverbanks or coastlines that are not deemed to be particularly necessary for maintenance or for the public benefit
- H : Disasters that occur during works other than those for disaster recovery
- I : Disaster recovery for facilities managed by the private sector

Form-08

Request for Approval for Using the Disaster
Recovery Fund

Request for Approval for Using the Disaster Recovery Fund

Date : <Day / Month / Year>

To : <Mr. Name of Chairperson>
 Chairperson,
 Project Steering Committee,
 Disaster Recovery Fund,
 Secretary,
 Ministry of Disaster Management and Relief

Sir,

We agreed with your Comments on the Result of Joint Site Inspection issued on <Day / Month / Year> for the following Candidate Sub-project.

Title of Candidate Sub-project	
Date of disaster occurrence	<i>Day/Month/Year</i>
Type of disaster occurred	<i>Flood / Water logging / River bank erosion / Cyclone / Storm surge / Tornado / Landslide / Earthquake / Tsunami / Slope failure</i>
Location	<i>Village, Union Parishad, Upazila, District, Division</i>
Affected infrastructure(s)	<i>Flood countermeasure facilities (Dike, Polder, Bank revetment, Sluice gate, Rubber dam etc.) / Rural road / Rural bridge / Bridge / Culvert / Cyclone shelter / Flood shelter</i>

We will submit the following documents by <Day / Month / Year> as per your instruction.

Documents	Number
Design drawings	two A3 size copies and one soft copy
Cost estimate	two A4 size copies
Proposed implementation schedule	two A4 size copies
Design note	two A4 size copies and one soft copy
Environmental management plan	two A4 size copies

You are therefore requested to issue Approval of the Project Steering Committee for using the Disaster Recovery Fund.

<Signature of Applicant>

<Name of Applicant>

<Designation of Applicant>

Project Implementation Unit

<Name of Office>

Bangladesh Water Development Board / Department of Disaster Management / Local Government Engineering Department

Form-09

Provisional Approval for Granting the Disaster
Recovery Fund

Provisional Approval for Granting the Disaster Recovery Fund

Date : <Day / Month / Year>

To : <Mr. Name of Applicant>
<Designation of Applicant>

Project Implementation Unit

<Name of Office>

*Bangladesh Water Development Board / Department of Disaster Management / Local
Government Engineering Department*

Sir,

In response to your Request for Approval for Using the Disaster Recovery Fund of <Day / Month / Year>, we hereby issue the Provisional Approval for Granting the Disaster Recovery Fund for the <Title of Candidate Sub-project> which you have applied for.

You are therefore requested to proceed to due design work and environmental management planning.

The Approval of Project Steering Committee shall be issued within 1 month (including non-working days) from this day onward.

<Signature of Chairperson >

<Name of Chairperson>

Chairperson,
Project Coordination and Monitoring Unit,
Disaster Recovery Fund,
Additional Secretary,
Ministry of Disaster Management and Relief

Form-10

Receipt of Provisional Approval for Granting
the Disaster Recovery Fund

Receipt of Provisional Approval for Granting the Disaster Recovery Fund

Date : <Day / Month / Year>

To : <Mr. Name of Chairperson>
Chairperson,
Project Coordination and Monitoring Unit,
Disaster Recovery Fund,
Additional Secretary,
Ministry of Disaster Management and Relief
Government of the People's Republic of Bangladesh

Sir,

We acknowledged receipt of your Provisional Approval for Granting the Disaster Recovery Fund for the <Title of Candidate Sub-project> of <Day / Month / Year>.

We proceed to the due design work and environmental management planning.

<Signature of Applicant>

< Name of Applicant>

<Designation of Applicant>

Project Implementation Unit

<Name of Office>

*Bangladesh Water Development Board / Department of Disaster Management / Local Government
Engineering Department*

Form-11

Approval for Granting the Disaster Recovery
Fund

Approval for Granting the Disaster Recovery Fund

Date : <Day / Month / Year>

To : <Mr. Name of Applicant>
<Designation of Applicant>
Project Implementation Unit
<Name of Office>

*Bangladesh Water Development Board / Department of Disaster Management / Local
Government Engineering Department*

Sir,

In the result of our assessment responding to a series of due documents submitted by you, we hereby issue the Approval for Granting the Disaster Recovery Fund for the <Title of Candidate Sub-project> which you have applied for.

Sub-project Reference No. < Reference No.is given. >

<Signature of Chairperson >

<Name of Chairperson>

Chairperson,
Project Steering Committee,
Disaster Recovery Fund,
Secretary,
Ministry of Disaster Management and Relief
Government of the People's Republic of Bangladesh

Form-12

Receipt of Approval for Granting the Disaster
Recovery Fund

Receipt of Approval for Granting the Disaster Recovery Fund

Date : <Day / Month / Year>

To : <Mr. Name of Chairperson>
Chairperson,
Project Steering Committee,
Disaster Recovery Fund,
Secretary,
Ministry of Disaster Management and Relief
Government of the People's Republic of Bangladesh

Sir,

We acknowledged receipt of your Approval for Granting the Disaster Recovery Fund for the <Title
of Sub-project> with <Reference No.> of <Day / Month / Year>.

<Signature of Applicant>

< Name of Applicant>

<Designation of Applicant>

Project Implementation Unit

<Name of Office>

*Bangladesh Water Development Board / Department of Disaster Management / Local Government
Engineering Department*

Form-13

Submission of Design Documents of the Sub-
project

Submission of Design Documents of the Sub-project

Date : <Day / Month / Year>

To : <Mr. Name of Chairperson>
 Chairperson,
 Project Coordination and Monitoring Unit,
 Disaster Recovery Fund,
 Additional Secretary,
 Ministry of Disaster Management and Relief

Sir,

We will submit the following design documents of <Sub-project Name> with <Sub-project Reference No.> as per your Comments on the Result of Joint Site Inspection of <Day / Month / Year>.

Documents	Number
Design drawings	two A3 size copies and one soft copy
Cost estimate	two A4 size copies
Proposed implementation schedule	two A4 size copies
Design note	two A4 size copies and one soft copy
Environmental management plan	two A4 size copies

You are requested to confirm the contents of design and to determine the cost of Sub-project allocated from the Disaster Recovery Fund.

<Signature of Project Implementation Official>

<Name of Project Implementation Official>

<Designation of Project Implementation Official>

Project Implementation Unit

<Name of Office>

*Bangladesh Water Development Board / Department of Disaster Management / Local Government
 Engineering Department*

Form-14

Cost Estimate of Sub-project

Date:

Project Implementation Unit

BWDB **DDM** **LGED**

Office:

Cost Estimate of Sub-Project

Sub-project Name:

Sub-project Reference No.:

Cost Estimate of Sub-project

Project Implementation Unit	BWDB <input type="checkbox"/>	DDM <input type="checkbox"/>	LGED <input type="checkbox"/>	
	Office:			
Sub-project Name				
Sub-project Reference No.				
Location of Sub-project	Village:		Union Parishad:	
	Upazila:		District:	
	Division:			
Cause of Disaster	Flood <input type="checkbox"/>	Water logging <input type="checkbox"/>	River bank erosion <input type="checkbox"/>	Cyclone <input type="checkbox"/>
	Storm surge <input type="checkbox"/>	Tornado <input type="checkbox"/>	Landslide <input type="checkbox"/>	Earthquake <input type="checkbox"/>
	Tsunami <input type="checkbox"/>	Slope failure <input type="checkbox"/>		
Date of Disaster Occurrence	Day:	Month:	Year:	
Amount of Estimated Costs	Works	Proposed (Tk.)	Assessed (Tk.)	Remarks
	Consulting services	3,662,802		
	Construction	30,610,753		
	Total	34,273,555		
Profile of Sub-project	<p>1. Consulting services</p> <p>Detailed design and tender documents: LS</p> <p>Topographic survey LS</p> <p>Geological survey LS</p> <p>Environmental management plan LS</p> <p>2. Construction works</p> <p>XX Polder dike L=800m, Filling V=43,000cum, Sub-base course 630sqm</p> <p>Box culverts N=3units, Steel W=25.5ton, Concrete V=282cum</p> <p>Drainage ditch L=800m, Steel W=6ton, Concrete V=192cum</p>			
Proponent	Name:		Designation:	
	Signature:			
Assessor	Name:		Designation:	
	Signature:			

Grand Summary

<i>BOQ No.</i>	<i>Work Item</i>	<i>Amount (Tk.)</i>
No.1	Consulting services	3,662,802
No.2	General and Site Facilities	2,395,151
No.3	Dike earthworks	16,228,210
No.4	Box culvert No.1, No.2 & No.3	5,369,037
No.5	Drainage ditch	2,625,648
No.6	Contingency	3,992,707
(carried forward to Summary, p.____)		34,273,555

Bill of Quantities

BOQ: No.3

Work Item: Dike earthworks

<i>Item No.</i>	<i>Description</i>	<i>Specifications</i>	<i>Unit</i>	<i>Quantity</i>	<i>Rate (Taka)</i>	<i>Amount (Taka)</i>
CW0001	Earthwork in excavation	hydraulic excavator 0.9cum bucket capacity	cum	7,000	64	448,000
CW0002	Earthwork in excavation	manual means_upto 20m lead from center line of the embankment	cum	1,400	76	106,400
CW0004	Earth filling work	Earth filling work	cum	800	128	102,400
CW0003	Earth filling work	within municipal area_earth supplied and arranged by the contractor from a distance beyond 200m from the end of right of way	cum	35,000	342	11,970,000
CW0005	Mechanical compaction of earthwork	compaction test inclusive	cum	43,000	39	1,677,000
CW0006	Turfing on slope		sqm	15,000	23	345,000
CW0012	Sub-base course work	road roller 8-10ton_minimum modified CBR 30%	cum	630	2,507	1,579,410
(carried forward to Summary, p.____)				Total		16,228,210

Bill of Quantities

Classification	Work Items	Item No.	Description	Specifications	Unit	Qunatity	Rate (Tk.)	Amount (Tk.)
1. Consulting services								3,662,802
		CNS0001	Consulting services	detailed design and tender documents	LS	1	2,378,338	2,378,338
		CNS0002	Consulting services	environmental managementl plan	LS	1	983,200	983,200
		CNS0003	Consulting services	topographic survey	LS	1	108,579	108,579
		CNS0004	Consulting services	geological survey	LS	1	192,685	192,685
2. Construction work for XX Polder dike								30,610,753
	General and Site Facilities							2,395,151
		GSF0001	Contractor's personnel	engineers, surveyors, car drivers and others	LS	1	1,258,250	1,258,250
		GSF0002	Contractor's vehicle	fuel inclusive	LS	1	488,600	488,600
		GSF0003	Contractor's site office	minimum 38sqm_furniture, equipment, consumables and stationeries inclusive	LS	1	648,301	648,301
	Polder dike earthworks							16,228,210
		CW0001	Earthwork in excavation	hydraulic excavator 0.9cum bucket capacity	cum	7,000	64	448,000
		CW0002	Earthwork in excavation	manual means_upto 20m lead from center line of the embankment	cum	1,400	76	106,400
		CW0004	Earth filling work	Earth filling work	cum	800	128	102,400
		CW0003	Earth filling work	within municipal area_earth supplied and arranged by the contractor from a distance beyond 200m from the end of right of way	cum	35,000	342	11,970,000
		CW0005	Mechanical compaction of earthwork	compaction test inclusive	cum	43,000	39	1,677,000
		CW0006	Turfing on slope		sqm	15,000	23	345,000
		CW0012	Sub-base course work	road roller 8-10ton_minimum modified CBR 30%	cum	630	2,507	1,579,410
	Box culvert No.1, No.2 & No.3							5,369,037
		CW0007	Cement concrete work: 17MPa	shuttering_levelling and plain concrete	cum	27	8,670	234,090
		CW0008	Cement concrete work: 20MPa	shuttering_bottom slab and footing	cum	75	11,639	872,925
		CW0009	Cement concrete work: 20MPa	shuttering_wall and pier upto 5m high	cum	135	12,173	1,643,355
		CW0010	Cement concrete work: 20MPa	shuttering_top slab and girder upto 5m high from the ground	cum	45	15,713	707,085
		CW0011	Reinforcing steel work	Grade 300_fabrication & erection	ton	25.5	74,964	1,911,582
	Drainage ditch							2,625,648
		CW0007	Cement concrete work: 17MPa	shuttering_levelling and plain concrete	cum	36	8,670	312,120
		CW0008	Cement concrete work: 20MPa	shuttering_bottom slab and footing	cum	66	11,639	768,174
		CW0009	Cement concrete work: 20MPa	shuttering_wall and pier upto 5m high	cum	90	12,173	1,095,570
		CW0011	Reinforcing steel work	Grade 300_fabrication & erection	ton	6.0	74,964	449,784
	Contingency 15% of construction work			15% of construction work	%	15		3,992,707
3. Total 1.+2.								34,273,555

Analysis of Consulting Services

Item No.		Consulting services detailed design and tender documents						
CNS0001		Quotation, LGED Schedule of Rates July 2015 for Khulna Region, PWD Schedule of Rates 2014 for Civil Works						
Breakdown	Specification	Basic requirement	Compensating rate	Modified requirement	Unit	Rate (Tk.)	Amount (Tk.)	Remarks
Design engineer	experience more than 10 years	4.00	1.00	4.00	month	280,000	1,120,000	Billing rates include
								staff remuneration, social charges,
Cost estimate, spec. and tender document specialist	experience more than 10 years	3.00	1.00	3.00	month	280,000	840,000	overhead and consultant's fee
MP1007 CAD operator		4.00	1.00	4.00	month	15,000	60,000	
Transportation								
MN0006 Pick-up car	double cab petrol 2liter	12.00	1.00	12.00	day	2,600	31,200	12day site surveys
MP0013 Car driver		12.00	1.00	12.00	day	450	5,400	
ML0010 Petrol		120.00	1.00	120.00	liter	96	11,520	12day×100km/day/(10km/liter)=120liter
MS0005 Contingency		15.00	1.00	15.00	%		310,218	
				1.00	LS		2,378,338	
				1.00	LS		2,378,338	

Item No.		Consulting services environmental management plan						
CNS0002		Quotation, LGED Schedule of Rates July 2015 for Khulna Region, PWD Schedule of Rates 2014 for Civil Works						
Breakdown	Specification	Basic requirement	Compensating rate	Modified requirement	Unit	Rate (Tk.)	Amount (Tk.)	Remarks
Environmentalist	experience more than 10 years	3.00	1.00	3.00	month	280,000	840,000	Billing rates include
								staff remuneration, social charges,
								overhead and consultant's fee
MP1002 Diploma engineer		3.00	1.00	3.00	month	21,000	63,000	
Transportation								
MN0006 Pick-up car	double cab petrol 2liter	20.00	1.00	20.00	day	2,600	52,000	20day site surveys
MP0013 Car driver		20.00	1.00	20.00	day	450	9,000	
ML0010 Petrol		200.00	1.00	200.00	liter	96	19,200	20day×100km/day/(10km/liter)=200liter
				1.00	LS		983,200	
				1.00	LS		983,200	

Analysis of Cost for General and Site Facilities

Item No.		Contractor's personnel engineers, surveyors, car drivers and others							
GSF0001		LGED Schedule of Rates July 2015 for Khulna Region							
Breakdown	Specification	Basic requirement	Compensating rate	Modified requirement	Unit	Rate (Tk.)	Amount (Tk.)	Remarks	
MP1001	Expertised engineer	experience more than 10years	7.00	1.00	7.00	month	100,000	700,000	
MP1002	Diploma engineer		7.00	1.00	7.00	month	21,000	147,000	
MP1007	CAD operator		7.00	1.00	7.00	month	15,000	105,000	
MP1003	Surveyor		7.00	1.00	7.00	month	12,500	87,500	
MP1004	Assistant surveyor		7.00	1.00	7.00	month	11,250	78,750	
MP1005	Surveyor helper		7.00	1.00	7.00	month	8,750	61,250	
MP1006	Car driver		7.00	1.00	7.00	month	11,250	78,750	
				1.00	LS			1,258,250	
				1.00	LS			1,258,250	

Item No.		Contractor's vehicle fuel inclusive							
GSF0002		PWD Schedule of Rates 2014 for Civil Works							
Breakdown	Specification	Basic requirement	Compensating rate	Modified requirement	Unit	Rate (Tk.)	Amount (Tk.)	Remarks	
MN1001	Pick-up car	double cab petrol 2liter	7.00	1.00	7.00	month	65,000	455,000	
ML0010	Petrol		350.00	1.00	350.00	liter	96	33,600	25day/month×7month× 20km/day/(10km/liter)=350liter
				1.00	LS			488,600	
				1.00	LS			488,600	

Analysis of Schedule of Rates for Civil Works

Item No.		Earthwork in excavation hydraulic excavator 0.9cum bucket capacity						
CW0001		LGED Schedule of Rates July 2015 for Khulna Region						
Breakdown	Specification	Basic requirement	Compensating rate	Modified requirement	Unit	Rate (Tk.)	Amount (Tk.)	Remarks
Earth work in excavation	disposing of all excavated materials at a safe distance	1.00	1.00	1.00	cum	64	64	Profit 10.0%, Overhead 2.0%, VAT 5.5% and Income tax 4.0% inclusive
				1.00	cum		64	
				1.00	cum		64	

Item No.		Earthwork in excavation manual means upto 20m lead from center line of the embankment						
CW0002		LGED Schedule of Rates July 2015 for Khulna Region						
Breakdown	Specification	Basic requirement	Compensating rate	Modified requirement	Unit	Rate (Tk.)	Amount (Tk.)	Remarks
Earth work in excavation	disposing of all excavated materials at a safe distance	1.00	1.00	1.00	cum	76	76	Profit 10.0%, Overhead 2.0%, VAT 5.5% and Income tax 4.0% inclusive
				1.00	cum		76	
				1.00	cum		76	

Schedule of Rates for Manpower

LGED Schedule of Rates July 2015 for Khulna Region: 1

PWD Schedule of Rates July 2014 for Civil Works: 2

Quotation: 3

Item No.	Description	Specifications	Unit	Rate (Tk.)	Source
MP0001	Skilled labour		day	350	1
MP0002	Ordinary labour		day	300	1
MP0003	Foreman		day	500	1
MP0004	Carpenter		day	450	1
MP0005	Re-bar fabricator		day	450	1
MP0006	Form builder		day	450	1
MP0007	Scaffold worker		day	450	1
MP0008	Operator		day	450	1
MP0009	Diploma engineer		day	800	1
MP0010	Surveyor		day	500	1
MP0011	Assistant surveyor		day	450	3
MP0012	Surveyor helper		day	350	1
MP0013	Car driver		day	450	1
MP0014	CAD operator		day	600	1
MP1001	Expertised engineer	experience more than 10years	month	100,000	2
MP1002	Diploma engineer		month	21,000	1
MP1003	Surveyor		month	12,500	1
MP1004	Assistant surveyor		month	11,250	3
MP1005	Surveyor helper		month	8,750	1
MP1006	Car driver		month	11,250	1
MP1007	CAD operator		month	15,000	1

Form-15

Overall Sub-Project Implementation Schedule

Form-16

Determination of Amount Granted to the Sub-
project

Determination of Amount Granted to the Sub-project

Date : <Day / Month / Year>

To : <Name of Project Implementation Official>
<Designation of Project Implementation Official>
Project Implementation Unit
<Name of Office>
*Bangladesh Water Development Board / Department of Disaster Management / Local
Government Engineering Department*

Sir,

We hereby inform you that the amount of the Disaster Recovery Fund granted to the <Sub-project Name> with <Sub-project Reference No.> has been determined upon confirming your Submission of Design Documents of the Sub-project of <Day / Month / Year>.

The amount determined shall be informed in your presence at PCMU Secretariat in the Ministry of Disaster Management and Relief.

<Signature of Chairperson>

<Mr. Name of Chairperson>

Chairperson,
Project Steering Committee,
Disaster Recovery Fund,
Secretary,
Ministry of Disaster Management and Relief

Form-17

Notice of Advertisement for Construction
Work of the Sub-project

Notice of Advertisement for Construction Work of the Sub-project

Date : <Day / Month / Year>

To : Chairperson,
Project Steering Committee,
Disaster Recovery Fund,
Secretary,
Ministry of Disaster Management and Relief

Sir,

We hereby inform you of the Notice of Advertisement for Construction Work of the Sub-project as described in the following table.

Sub-project Name		
Sub-project Reference No.		
Mean of advertisement	Website	Central Procurement Technical Unit, Ministry of Planning
	Newspaper(s)	
Advertisement date		
Tender closing date and time		
Tender opening date and time		
Name and address of the offices for the following process		
Selling tender document	Name	
	Address	
Receiving tender document	Name	
	Address	
Opening tender document	Name	
	Address	
Pre-tender meeting	Name	
	Address	
	Date and time	

<Signature of Project Implementation Official>

<Name of Project Implementation Official>

<Designation of Project Implementation Official>

Project Implementation Unit

<Name of Office>

*Bangladesh Water Development Board / Department of Disaster Management / Local Government
Engineering Department*

Form-18

Signing of Contract for Construction Work of
the Sub-project

Signing of Contract for Construction Work of the Sub-project

Date : <Day / Month / Year>

To : Chairperson,
Project Steering Committee,
Disaster Recovery Fund,
Secretary,
Ministry of Disaster Management and Relief

Sir,

We hereby inform you of the Signing of Contract for Construction Work of the Sub-project as described in the following table.

Sub-project Name	
Sub-project Reference No.	
Date of advertisement	
Date of notification of award	
Date of contract signing	
Date of contract completion	
No. of tenders sold	
No. of tenders received	
No. of tenders responsive	
Threshold value in Taka	
Contract value in Taka	
Name of contractor	
Address of contractor	

<Signature of Project Implementation Official>

<Name of Project Implementation Official>

<Designation of Project Implementation Official>

Project Implementation Unit

<Name of Office>

*Bangladesh Water Development Board / Department of Disaster Management / Local Government
Engineering Department*

Form-19

Request for Assessment and Approval for the
Variation Order to Sub-project

Request for Assessment and Approval for the Variation Order to Sub-project

Date : <Day / Month / Year >

To : Chairperson,
Project Coordination and Monitoring Unit,
Disaster Recovery Fund,
Additional Secretary,
Ministry of Disaster Management and Relief

Sir,

We hereby submit the following documents for requesting you to make due assessment of the documents submitted herewith and issue the approval for the variation order to the following sub-project.

Documents	Number
Request for assessment and approval for the variation order to sub-project	one A4 size original
Amendment of design drawings	two A3 size copies and one soft copy
Amendment of cost estimate	two A4 size copies
Amended implementation schedule	two A4 size copies
Amendment of design note	two A4 size copies and one soft copy

Title of Sub-project: _____

Sub-project Reference No.: _____

Proposed cost for variation order. _____

including Taxes in Taka

<Signature of Project Implementation Official>

<Name of Project Implementation Official>

<Designation of Project Implementation Official>

Project Implementation Unit

<Name of Office>

Bangladesh Water Development Board / Department of Disaster Management / Local Government Engineering Department

Contents of the Variation Order to Sub-project

1	Title of Sub-project	
2	Sub-project Reference No	
3	Construction Work: Contractor	
	Name of Firm	
	Contract No.	
	Contract Date	<i>Day/Month/Year</i>
4	Consulting services	
	(1) Design & Survey	
	Name of Firm	
	Contract No.	
	Contract Date	<i>Day/Month/Year</i>
	(2) Construction Supervision	
	Name of Firm	
	Contract No.	
	Contract Date	<i>Day/Month/Year</i>
	(3) Environmental monitoring	
	Name of Firm	
	Contract No.	
Contract Date	<i>Day/Month/Year</i>	
5	Necessity of proposed variation	
6	Originator of proposed variation	<input type="checkbox"/> Project Implementation Unit <input type="checkbox"/> Contractor <input type="checkbox"/> Design & Survey Consulting Firm <input type="checkbox"/> Construction Supervision Consulting Firm <input type="checkbox"/> Other _____

7	Estimated costs of proposed variation order	
	(1) Contractor	
	Cumulative contract price including taxes so far in Taka	<i>Please describe price in Taka.</i>
	Proposed cost including taxes for variation order in Taka	<i>Please describe price in Taka.</i>
	(2) Consulting services	
	Cumulative contract price including taxes so far in Taka	<i>Please describe price in Taka.</i>
	Proposed cost including taxes for variation order in Taka	<i>Please describe price in Taka.</i>
8	Date of contract completion	
	(1) Contractor	
	Original date of contract completion	<i>Day/Month/Year</i>
	Proposed date of contract completion	<i>Day/Month/Year</i>
	(2) Consulting services	
	Original date of contract completion	<i>Day/Month/Year</i>
	Proposed date of contract completion	<i>Day/Month/Year</i>

Form-20

Comments on Request for the Variation Order
to Sub-project

Comments on Request for the Variation Order to Sub-project

Date : <Day / Month / Year>

To : <Mr. Name of Project Implementation Official>,
<Designation of Project Implementation Official >,
Project Implementation Unit,
<Name of Office>,
*Bangladesh Water Development Board / Department of Disaster Management /
Local Government Engineering Department*

Sir,

We hereby inform you of our comments on request for the Variation Order to Sub-project of <Day / Month / Year> which you have applied to assess and approve as described in the following.

Title of Sub-project	
Sub-project Reference No.	
Contractor	
Cumulative contract price including taxes so far in Taka	<i>Please describe cumulative contract price including taxes so far in Taka for construction work</i>
Proposed cost including taxes for variation order in Taka	<i>Please describe proposed cost including taxes so far in Taka for construction work</i>
PCMU's comments regarding proposed cost for variation order for construction work	
Consulting services	
Cumulative contract price including taxes so far in Taka	<i>Please describe cumulative contract price including taxes so far in Taka for consulting services</i>
Proposed cost including taxes for variation order in Taka	<i>Please describe proposed cost including taxes so far in Taka for consulting services</i>
PCMU's comments regarding proposed cost for variation order for consulting services	
PCMU's comments regarding other than costs	

<Signature of Chairperson>

<Name of Chairperson>

Chairperson,
Project Coordination and Monitoring Unit,
Disaster Recovery Fund,
Additional Secretary,
Ministry of Disaster Management and Relief

Form-21

Contract Amendment for Construction Work
of the Sub-project

Contract Amendment for Construction Work of the Sub-project

Date : <Day / Month / Year>

To : Chairperson,
Project Coordination and Monitoring Unit,
Disaster Recovery Fund,
Additional Secretary,
Ministry of Disaster Management and Relief

Sir,

We hereby inform you of the Contract Amendment for Construction Work of the Sub-project as described in the following table.

Sub-project Name	
Sub-project Reference No.	
Date of original contract signing	
Date of amended contract signing	
Original date of contract completion	
Amended date of contract completion	
Original contract value in Taka	
Amended contract value in Taka	
Name of contractor	
Address of contractor	

<Signature of Project Implementation Official>

<Name of Project Implementation Official>

<Designation of Project Implementation Official>

Project Implementation Unit

<Name of Office>

*Bangladesh Water Development Board / Department of Disaster Management / Local Government
Engineering Department*

Form-22

Contract Amendment for Consulting Services
of the Sub-project

Contract Amendment for Consulting Services of the Sub-project

Date : <Day / Month / Year>

To : Chairperson,
Project Coordination and Monitoring Unit,
Disaster Recovery Fund,
Additional Secretary,
Ministry of Disaster Management and Relief

Sir,

We hereby inform you of the Contract Amendment for Consulting Services of the Sub-project as described in the following table.

Sub-project Name	
Sub-project Reference No.	
Date of original contract signing	
Date of amended contract signing	
Original date of contract completion	
Amended date of contract completion	
Original contract value in Taka	
Amended contract value in Taka	
Name of consulting firm	
Address of consulting firm	

<Signature of Project Implementation Official>

<Name of Project Implementation Official>

<Designation of Project Implementation Official>

Project Implementation Unit

<Name of Office>

*Bangladesh Water Development Board / Department of Disaster Management / Local Government
Engineering Department*

Form-23

Contract Completion for Construction Work of
the Sub-project

Contract Completion for Construction Work of the Sub-project

Date : <Day / Month / Year>

To : Chairperson,
Project Steering Committee,
Disaster Recovery Fund,
Secretary,
Ministry of Disaster Management and Relief

Sir,

We hereby inform you of the Contract Completion for Construction Work of the Sub-project as described in the following table.

Sub-project Name	
Sub-project Reference No.	
Date of contract signing	
Date of completion inspection	
Date of contract completion	
Original contract value in Taka	
Final contract value in Taka	
Name of contractor	
Address of contractor	

The defect liability inspection for the construction work shall be conducted on a date one year later after the date of contract completion.

<Signature of Project Implementation Official>

<Name of Project Implementation Official >

<Designation of Project Implementation Official >

Project Implementation Unit

<Name of Office>

*Bangladesh Water Development Board / Department of Disaster Management / Local Government
Engineering Department*

Form-24

Contract Completion for Consulting Services
of the Sub-project

Contract Completion for Consulting Services of the Sub-project

Date : <Day / Month / Year>

To : Chairperson,
Project Steering Committee,
Disaster Recovery Fund,
Secretary,
Ministry of Disaster Management and Relief

Sir,

We hereby inform you of the Contract Completion for Consulting Services of the Sub-project as described in the following table.

Sub-project Name	
Sub-project Reference No.	
Date of contract signing	
Date of completion inspection	
Date of contract completion	
Original contract value in Taka	
Final contract value in Taka	
Name of consulting firm	
Address of consulting firm	

<Signature of Project Implementation Official>

<Name of Project Implementation Official >

<Designation of Project Implementation Official >

Project Implementation Unit

<Name of Office>

*Bangladesh Water Development Board / Department of Disaster Management / Local Government
Engineering Department*

Form-25

Report on Defect Liability Inspection for the
Sub-project

Report on Defect Liability Inspection

Project Implementation Unit	BWDB <input type="checkbox"/>	DDM <input type="checkbox"/>	LGED <input type="checkbox"/>
	Office:		
Sub-project Name			
Sub-project Reference No.			
Location of Sub-project	Village:		Union Parishad:
	Upazila:		District:
	Division:		
Date of contract signing	Day:	Month:	Year:
Date of completion	Day:	Month:	Year:
Cumulative contract price	Taka:		
Date of inspection	Day:	Month:	Year:
Contractor	Name of Firm:		
	Name of Project Manager:		
	Signature:		
Inspector	Name:		Designation:
	Office:		Signature:
Witness	Name:		Designation:
	Office:		Signature:
	Name:		Designation:
	Office:		Signature:
	Name:		Designation:
	Office:		Signature:

<Judgement>

Acceptable
Conditionally
Unacceptable
acceptable

<Overall Results and Direction>

Inspection Check Sheet

Name of infrastructure:

-Inspection Method: V: Visual, M: Measuring, H: Hammering, T: Contact, S: Auditory, O:Operational

-Rating: A: No troubled is seen.

B: Trouble might occur within several years if no due measure is taken.

C: Troubled, and urgent due measures are required.

Items	Parts	Contents of Inspection	Inspection Methods	Rating			Observations
				A	B	C	
Earth Dike	Slope, Crest and Berm	Cracks	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Settlement/Subsidence	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Scouring by water	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Rill and/or Gully erosion by rainfalls	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Squeezing	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Slope failure	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Unevenness of Slope and/or Berm	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Adverse slope of berm causing ill rainfall drainage	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Abnormality of surface soil	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Peeling-off of turfing	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Slope toe of land side	Water leakage	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Boiling or Heaving of ground	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Bank Protection	Revetment	Cracks and/or Damage	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Loss	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Over-opening of joints	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Settlement/Subsidence	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Cavitation behind bank protection	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Toe protection	Cracks and/or Damage	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Loss	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Over-opening of joints	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Settlement/Subsidence	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Inspection Check Sheet

Name of infrastructure:

-Inspection Method: V: Visual, M: Measuring, H: Hammering, T: Contact, S: Auditory, O:Operational

-Rating: A: No troubled is seen.

B: Trouble might occur within several years if no due measure is taken.

C: Troubled, and urgent due measures are required.

Items	Parts	Contents of Inspection	Inspection Methods	Rating			Observations
				A	B	C	
Box Culvert	Main body	Cracks and/or Damage	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Loss	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Over-opening of joints	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Settlement/Subsidence	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Lifting	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Deflection	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Abnormal colour	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Cavitation behind member	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Water leakage	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Headwall of upstream	Cracks and/or Damage	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Loss	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Over-opening of joints	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Settlement/Subsidence	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Lifting	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Deflection	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Abnormal colour	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Cavitation behind member	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Water leakage	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Headwall of downstream	Cracks and/or Damage	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Loss	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Over-opening of joints	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Settlement/Subsidence	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Lifting	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Deflection	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Abnormal colour	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Cavitation behind member		V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Water leakage		V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

Inspection Check Sheet

Name of infrastructure:

-Inspection Method: V: Visual, M: Measuring, H: Hammering, T: Contact, S: Auditory, O:Operational

-Rating: A: No troubled is seen.

B: Trouble might occur within several years if no due measure is taken.

C: Troubled, and urgent due measures are required.

Items	Parts	Contents of Inspection	Inspection Methods	Rating			Observations
				A	B	C	
Road	Asphalt pavement	Cracks	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Loss	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Rut	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Unevenness	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Pot holes	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Abnormal colour	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Drainage ditch	Cracks and/or Damage	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Loss	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Over-opening of joints	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Settlement/Subsidence	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Lifting	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Deflection	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Abnormal colour	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Cavitation behind member	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Water leakage	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Unevenness of gradient of invert	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Adverse gradient of invert causing water stagnation	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Catch basins	Cracks and/or Damage	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Loss	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Settlement/Subsidence	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Lifting	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Deflection	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Abnormal colour	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Cavitation behind member	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		Water leakage	V	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		